



Product Guide



EU F-Gas Regulations

This product range contains fluorinated greenhouse gases. In line with EU F-Gas Regulations, HFC designation, weight and equivalent tonnes of CO₂ are displayed on product labels, within technical manuals and inside our product brochure.

Quick reference

Find the right solution for your application

Six product ranges supported by an extensive number of models and exceptional configuration flexibility means that when selecting an Airedale system, your choice of variants is considerable, enabling you to precisely match your application.

We apply the latest technology led by smart control logic to ensure our products offer you the highest efficiency, resilience and quality. First and foremost, they are designed to be stand-alone, but when integrated, they share intelligence and further reduce energy through combined efficiencies.

Our breadth of expertise enables us to engineer innovative, integrated cooling solutions across commercial and public sectors - in data centres and other critical environments; industrial process cooling or comfort cooling in retail, leisure and office applications.

Airedale - Your first choice

Airedale is a British manufacturer with over 40 years industry experience. As the UK's number one provider of chillers, precision air conditioning and IT cooling solutions and at the forefront of controls software design and optimisation, we are experts in integrating our products to reduce your total cost of ownership.

We can help you select the optimum specification tailored to your application and provide the support which will enable you to manage your cooling system for best performance, maximum longevity and lower operating costs.

Global company

Airedale is a world leader in the design and manufacture of innovative, high efficiency cooling solutions. We manufacture in three continents and export to customers in over sixty countries through a network of more than seventy business partners.

Chillers

20kW

1830kW

SCROLL

DeltaChill™ 110 - 1010kW



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DeltaChill™ FreeCool 140 - 1080kW



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Ultima™ Compact 30 - 150kW



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Ultima™ Compact FreeCool 75 - 450kW



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Ultima™ Remote Air Cooled 75 - 450kW



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Ultima™ Water Cooled 75 - 450kW



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LogiCool™ FreeCool 20 / 40kW



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CENTRIFUGAL

TurboChill™ 200 - 1720kW



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TurboChill™ FreeCool 200 - 1830kW



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TurboChill™ Water Cooled 150 - 1472kW



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SCREW

OptiChill™ FreeCool 750 - 1365kW



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Precision Air Conditioning

5kW 233kW

SmartCool™ 11 – 233kW



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SmartCool™ Inverter Compressor 5 – 83kW



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EasiCool™ 6 – 64kW



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Ecotel™ 5 – 15kW



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Ecotel™ Free Cool 5 – 15kW



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IT Cooling

2kW 67kW

OnRak™ 3 – 35kW



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InRak™ 10 – 67kW



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InRak™ 300mm 8 – 36kW



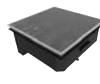
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AireTile™ Up to 1.2m³/s



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Condensers & Condensing Units

3kW 450kW

BluCube™ 10 – 48kW



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Air Cooled Condensers (CR) 12 – 195kW (R410A)



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Air Cooled Condensers (C/CS) 11 – 105kW (R407C)



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Dry Coolers (DR) 10 – 100kW



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Condensing Units (CU1 – CU54) 3 – 13kW THR



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Condensing Units (CUS5 – 12) 14 – 35kW THR



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Condensing Units (CUS15 – 30D) 40 – 80kW THR



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Ultima™ Compact Condensing Unit 30 – 450kW THR



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Comfort

1kW 12kW

Artus™ Hybrid Fan Coil Unit 1.4 – 2.8kW



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Cassette 2 – 12kW

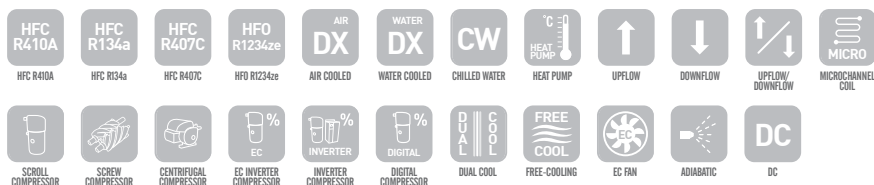


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PRODUCT KEY

See product pages 3 - 14 inclusive for a reference to which icons represent standard or optional features



Ecodesign Directive

2009/125/EC

Ecodesign defines minimum requirements for energy-related products to improve product design and energy efficiency. It is a European framework, designed to help the European Union meet its 2020 energy efficiency targets. Directive implementation is via product group-specific regulations, and relevant products have been divided into "Lots" with specific implementing measures.

Airedale products appear under Lot 21.

Ecodesign: Our Responsibility



As a British Manufacturer, we are committed to limiting the environmental impact of our products. We dedicate our time to work with you to deliver Ecodesign Directive compliance and all associated benefits.

The below covers issues which will be relevant to you when considering Ecodesign:

Precision Air Conditioning (PAC)

PAC is exempt from Ecodesign when applied in process applications, e.g. data centres, clean rooms, laboratories, etc. PAC must comply with Ecodesign when applied in a comfort application.

Comfort Chillers

Must comply with Minimum Efficiency Performance Standards (MEPS) for Seasonal Space Cooling Energy Efficiency (SSCEE) in two tiers: Tier 1 – 1 January 2018. Tier 2 – 1 January 2021.

High-temperature Process Chillers

Do not provide cooling of space for the thermal comfort of human beings.

Must comply with Minimum Efficiency Performance Standards (MEPS) for Seasonal Energy Performance Ratio (SEPR) in two tiers: Tier 1 – 1 January 2018. Tier 2 – 1 January 2021.

1. If a chiller is declared only for high-temperature process cooling according to its documentation, then only the MEPS for SEPR has to be achieved.
2. Dual purpose chillers', i.e. those that provide cooling for both comfort and process must comply with the Minimum Energy Performance Standards (MEPS) for comfort, i.e. SSCEE.

Ecodesign: Implementation

Lot 21: Ecodesign applies in two steps: Step 1 – from January 2018 onwards. Step 2: active from 1 January 2021 (phase 2 further tightens the requirements). Within the European Union and the UK chillers, heating products, cooling products and fan coil units have to meet the new energy efficiency requirements from these dates.

Within this product guide, products are labelled with their level of Ecodesign compliance. Further information can be found within our Technical Manuals via www.airedale.com, as can further detail on the Ecodesign Directive.

We are here to support you throughout Ecodesign compliance, should you require further assistance, please contact your Airedale Account Manager.

Ecodesign: Our Commitment

Providing our customers with energy efficient solutions has been a pillar of our business since our foundation. All our ongoing products will be designed to meet current and future Ecodesign and F-Gas regulations regarding energy efficiency and carbon emissions.

Precision Air Conditioning



SmartCool™ 11 - 233kW

Refrigerant GWP 2088, refrigerant weight range of 2.3 - 8.4kg (4.8 - 17.5 equivalent tonnes of CO₂)



- + **21% energy saving in free-cooling dual cool variant**
- + **Up to 30% more cooling kW/m² compared to similar leading competitor units (CW range)**
- + **EER up to 52.4 (CW range)**
- + Single or dual circuit featuring: DX air cooled (16kW – 140kW); DX air cooled with chilled water (16 – 127kW), DX water cooled (60kW – 127kW); DX water cooled with glycol free-cooling (60 – 127kW); Chilled water (11kW – 233kW)
- + Up to 4 stages of tandem compressor DX cooling
- + Compliant scroll compressors for increased reliability and extended operating envelope
- + Variable humidification
- + Large surface area filters for lower airside pressure drop and increased system efficiency
- + EC fans as standard
- + Minimum space claim
- + Front access to all major components for easy service and maintenance
- + Constant air volume control (option)
- + Constant pressure control (option)

CW units within the range are **exempt from Ecodesign**, as are DX units **when applied in process cooling applications** (i.e. data centres). DX units within the range used in comfort cooling applications are non-Ecodesign compliant. Please refer to your Airedale account manager for full details



SmartCool™ Inverter Compressor 5 - 83kW

Refrigerant GWP 2088, refrigerant weight range of 3.9 - 7.6kg (8.1 - 15.9 equivalent tonnes of CO₂)



- + **Up to 21% more cooling kW/m² compared with nearest competitor units**
- + **Up to 45% more cooling kW/m² compared to fixed speed compressor systems**
- + 11 models, 4 case sizes
- + Inverter driven compressors for exact capacity match – saving substantial energy at part load
- + Slab coil design for reduced airside pressure drop
- + Optimised for hot and cold aisle containment with return air temperatures of up to 40°C
- + Accurate supply air temperature control (up to 26°C)
- + Suitable for long pipe runs up to 100m
- + Ambient operating envelope from -20°C to +50°C for flexible installation
- + Full 360° unit access for service and maintenance
- + Large surface area filters for increased performance and reduced fan power usage
- + Constant pressure control (option)
- + Constant air volume control (option)

DX units within the range are exempt from Ecodesign when applied in process cooling applications (i.e. data centres). DX units within the range applied in comfort cooling applications are non-Ecodesign compliant. Please refer to your Airedale account manager for full details

Precision Air Conditioning



EasiCool™ 6 - 64kW

Refrigerant GWP 2088 (R410A), GWP 1774 (R407C), refrigerant weight range of 1.0 - 13.3kg (2.0 - 23.5 equivalent tonnes of CO₂)



- + **50 - 100% variable capacity control with suction throttle valve option**
- + **Up to 70% more efficiency with EC fans optional upgrade on all indoor and outdoor units**
- + 76 DX (38 air cooled and 38 water cooled) and 34 chilled water models, in 6 case sizes
- + Tandem scroll compressors for reduced sound and part load efficiencies (models 20 - 64kW)
- + AV mounted, direct drive, speed controllable EC fan technology (models 6 - 27kW)
- + Variable humidification for precisely conditioned air
- + Full 360° service and maintenance access
- + Hot gas re-heat efficiently re-heats cool air during dehumidification (option)
- + Electric heating can be upgraded with thyristor control (option)
- + Direct drive backward curved EC fan upgrade for all indoor and outdoor units (option)
- + Upflow and downflow models available. Upflow models have options for front return, rear return or base return air inlet. Both upflow and downflow models have options for front or rear outlet

CW units within the range are **exempt from Ecodesign**, as are DX units **when applied in process cooling applications** (i.e. data centres). DX units within the range used in comfort cooling applications are non-Ecodesign compliant. Please refer to your Airedale account manager for full details



Ecotel™ 5 - 15kW

Ecotel™ Free Cool 5 - 15kW



Ecotel™

- + **Fresh air free cooling with 100% mechanical backup with annual running costs of just £70.25**
- + 4 modes of operation (heating, free cooling, concurrent, mechanical cooling)
- + 36 models in 2 case sizes
- + Less than 10 tonnes of CO₂ of refrigerant per circuit – no need for annual leak detection inspections (Single circuit ET12/15 single circuit will still require inspection)
- + Low and high ambient capability
- + Fault code alarm display option
- + -48V DC supply option

Ecotel™ Free Cool

- + **Fresh air free-cooling for 100% of the year (UK)**
- + Self-contained compact outdoor cabin cooler
- + Two case sizes
- + -48V DC supply option
- + Easy serviceability with front component access
- + Secure, tamper proof fixings

DX units within the range are exempt from Ecodesign when applied in process cooling applications (i.e. data centres). DX units within the range applied in comfort cooling applications are non-Ecodesign compliant. FreeCool units within the range are exempt from Ecodesign.

IT Cooling



OnRak™ 3 - 35kW



- + **88% saving in power input** an OnRak™ with EC fan and an EER of 144.7
- + **EER 114.45 (n); 183.02 (n+1). n+1 fan configuration for increased efficiency and resilience**
- + **Over 50% saving in energy when integrated with a free-cooling chiller**
- + Efficient rear door heat exchanger with 200mm footprint
- + Two configurations: (n) 35kW cooling (100% air volume); optional (n+1) 30kW cooling (75% air volume)
- + Designed to fit 42U racks (47U option)
- + Supplied with integrated rack or adapted to fit a customer specific rack, with simple connections
- + Pressure differential management - maintaining pressure in the rear of the rack within the server design envelope
- + Flexible water connections maintain cooling when door is open
- + Hot swappable fan management
- + Water detection and automatic isolation
- + Self-regulating constant flow control eases commissioning
- + High efficiency aluminium fin heat exchanger with integral coil guard

Units within the range are exempt from Ecodesign when applied in process cooling applications (i.e. data centres). Please refer to your Airedale account manager for full details



InRak™ 600mm 10 - 67kW

InRak™ 300mm 8 - 36kW

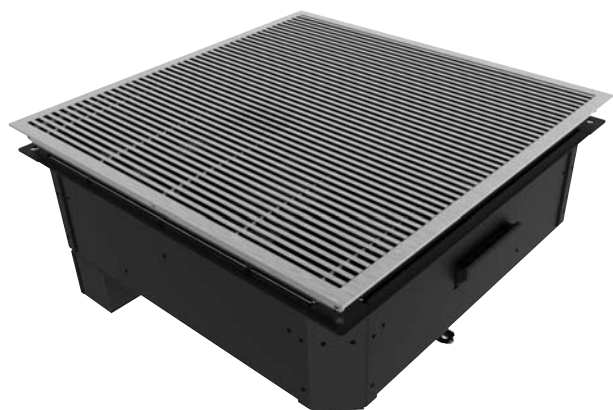


- + **EER up to 108.03 - n + 1, CW (600mm); EER up to 73.6 - n + 1, CW (300mm)**
- + **70% energy saving p.a. with EC fan**
- + **17 - 100% fully modulated cooling for substantial energy savings when operating at part load**
- + Efficient in-row cooling solution for medium to high density applications
- + Positioned next to a single rack or within a row of racks
- + Directs cool air horizontally to the front of the racks, maintaining even cooling (300mm)
- + n+1 fan configuration for increased efficiency and resilience
- + Aisle differential pressure control for resilience
- + Over 50% saving in energy when integrated with a free-cooling chiller
- + Up to 70% more efficiency with EC fans
- + Compact design for increased cooling per square metre
- + Dual power supply/static transfer switch (option)

Refrigerant GWP 2088, refrigerant weight range of 3.8 - 4.2kg (7.9 - 8.7 equivalent tonnes of CO₂)

Units within the range are exempt from Ecodesign when applied in process cooling applications (i.e. data centres). CW units are exempt from Ecodesign, regardless of application. Please refer to your Airedale account manager for full details

IT Cooling



AireTile™ Up to 1.2m³/s



- + **Dynamic fan floor tile boosts cooling efficiency via active air distribution**
- + **Four model types with different levels of functionality**
- + Two fan types; low air flow EC fan (<0.74m³/s) and high air flow EC fan (1.2m³/s)
- + Active air distribution maximises cooling efficiency
- + Eliminates hot spots, cool air directly targets heat load
- + Ideal pre or retrofit solution for additional cooling of high density racks and aisle containment
- + Reduces system running costs
- + Easy installation – units sit on raised access floor pedestals within floor void, minimum floor depth of 300mm (temperature control) or 400mm (constant air volume) required
- + Units can be standalone or networked (up to 64 units) via intelligent controls
- + Two power supplies as standard - 0 (230V / 1ph / 50H3), -1 (220V / 1ph / 60H3)

Comfort



Artus™ Hybrid Fan Coil Unit

1.4 – 2.8kW



- + **Revolutionary, award-winning, hybrid air conditioning system provides fan coil unit (FCU) performance, with the low energy consumption of a chilled beam**
- + **Space saving, compact system. Artus™ save up to 300mm in height per floor versus typical FCUs. Unit measures 572mm (W) X 572mm (L) x 203mm (D)**
- + **Fully packaged, plug-and-play unit, with inbuilt controls from a single supplier**
- + Premium efficiency EC fan technology
- + Uses 60% less specific fan power than a typical FCU (0.10 Watts/litre/second), reducing a building's overall energy consumption by the equivalent of 4 BREEAM points
- + Seamless integration with the ceiling membrane negates unsightly grilles. Artus™ is offered with various cosmetic fascia options available on request to suit any ceiling design
- + Delivers perfect, even heating and cooling for excellent thermal comfort with low noise
- + Artus™ is 'self-access' meaning that all components are accessible from below, with no requirement for access panels or a removable ceiling
- + Integrated control valves with options for conventional 2 port, 3 port or pressure independent control
- + BACnet controller with the option for MSTP or IP user interface
- + Integrated condensate pump with thermistor level sensing
- + Multi-award winning, recognised for its innovation and design by Marks & Spencer, RAC, CIBSE, and The Institution of Engineering and Technology



Cassette 2 - 12kW



- + **Smaller models fit the space of a standard ceiling tile measuring 600mm²**
- + 11 models for flexibility in heating, cooling and air flow
- + Available in 2 pipe and 4 pipe configurations
- + Efficient AC backward curved fan technology
- + Low sound
- + Neat, compact design
- + Smart, unobtrusive
- + Fresh air connection
- + Heating based on a LPHW heating coil (option)
- + Electric heating (two pipe variant only) (option)

Artus™ and Cassette units are fully Ecodesign compliant

Chillers



DeltaChill™ 110 - 1010kW

DeltaChill™ FreeCool 140 - 1080kW

Refrigerant GWP 2088, refrigerant weight range of 13.0 - 87.0kg (27.1 - 181.6 equivalent tonnes of CO₂)



- + **ESEER up to 5.10 with EC fan option**
- + **Class A EER up to 3.60**
- + 282 models: 151 models (DCC) and 131 models (DCF)
- + Single, dual or triple independent refrigeration circuits, allowing 2 - 9 stages of cooling
- + Up to 95% free-cooling with DCF
- + Up to 38% more cooling/m² than Airedale's previous generation free-cooling chillers
- + Low sound ranges: Quiet and Extra Quiet
- + E-coated micro-channel coils reduce life cycle costs and footprint
- + Modular, efficient 'V' frame fan coil module
- + Direct Effect Life Cycle (DELCC) CO₂ equivalent emissions of ≤1000 kgCO₂e/kW cooling capacity enable the DCC and DCF to contribute to a building achieving 1 BREEAM point
- + Inverter-controlled pump ensures constant water flow (option)
- + Automatic refrigerant pump down combined with leak detection enable the DCC and DCF to contribute to a building achieving 1 BREEAM point (option)

DCC = DeltaChill

DCF = DeltaChill FreeCool

Units within this range are Ecodesign compliant for both process (SEPR) and comfort cooling (SSCEE) applications. Please refer to the technical manual, website, or your Airedale account manager for full details



TurboChill™ 200 - 1720kW

TurboChill™ FreeCool 200 - 1830kW

Refrigerant GWP 1430 (R134A), GWP 7 (R1234ze), refrigerant weight range of 105.0 - 495.0kg (0.7 - 707.9 equivalent tonnes of CO₂)



- + **ESEER up to 5.67**
- + **Free-cooling for up to 95% per annum with TCF**
- + **EER over 15.0 at part load an increase of 22%**
- + **Up to 23% saved in operating costs p.a compared to the leading competitor screw chiller (based on an annual cycle in Leeds, UK at 50% load)**
- + More than 230 models to choose from
- + TurboChill™ range designed for use with both R134a and the new low Global Warming Potential refrigerant R1234ze
- + Latest EC fan technology provides up to 20% energy savings
- + TT300, TT350 and TG310 oil-free compressors for enhanced heat exchange and variable speed control
- + Flooded evaporator for optimum system efficiency
- + Modular V-frame coil design and large surface area of micro channel heat exchangers
- + ETL listed

TCF = TurboChill FreeCool



Energy Saving
Product of the Year



Units within this range are Ecodesign compliant for both process (SEPR) and comfort cooling (SSCEE) applications. Please refer to the technical manual, website, or your Airedale account manager for full details



TurboChill™ Water Cooled 150 – 1472kW

Refrigerant GWP 1430 (R134A), GWP 7 (R1234ze), refrigerant weight range of 83.0 - 85.0kg (0.6 - 121.6 equivalent tonnes of CO₂)



- + **ESEER up to 8.94**
- + **Class A EER up to 5.9**
- + **Up to 111% more cooling kW/m² compared with leading competitor units**
- + 3 module variants (R134a TT300 & TT350, R1234ze TG310)
- + 1 compact case size – 2000mm (H) x 1000 (W) x 1956mm (L)
- + Centrifugal TurboCor compressor – 30 – 100% variable speed control for tighter setpoint management and unbeatable efficiencies at part load
- + Compact spray type evaporator with integral subcooler – 67% reduced space claim (m²)
- + Scalable modular design
- + Range available with R134a refrigerant (1 BREEAM credit) and with R1234ze refrigerant (2 BREEAM credits)
- + Two sound variants; Regular Quiet (R), Extra Quiet (X)

Units within this range are Ecodesign compliant for both process (SEPR) and comfort cooling (SSCEE) applications. Please refer to the technical manual, website, or your Airedale account manager for full details



OptiChill™ FreeCool 750 - 1365kW

Refrigerant GWP 1430, refrigerant weight range of 85.0 - 235.0kg (121.6 – 307.5 equivalent tonnes of CO₂)



- + **ESEER up to 4.18 with optimised head pressure (OHP), for optimum operating efficiency**
- + **Up to 30% increase in system efficiency with electronic expansion valves (option)**
- + Over 200 models
- + Quiet and Extra Quiet ranges
- + Dual independent refrigeration circuits for resilience
- + Up to 95% free-cooling
- + 12.5°C increase in operational evaporating temperature range allowing supply water temperatures to be increased, thus raising the free-cooling threshold and giving enhanced compressor efficiency and reduced power input
- + Intelligent head pressure control, optimises performance
- + Latest fan technology reduces sound and power input
- + 8 stages of cooling for more precise capacity match
- + Large surface area condensing coils
- + High efficiency shell and tube evaporator

Units within this range are Ecodesign compliant for both process (SEPR) and comfort cooling (SSCEE) applications. Please refer to the technical manual, website, or your Airedale account manager for full details

Chillers



LogiCool™ FreeCool 20kW / 40kW

Refrigerant GWP 2088, refrigerant weight range of 6.8 - 10.3kg (14.1 - 21.5 equivalent tonnes of CO₂)



- + **Up to 95% free-cooling per annum**
- + **Over 50% saving in energy compared with a conventional chiller**
- + **Compact footprint from 1.5m² minimises space claim**
- + Variable capacity control for exact capacity match
- + Exceptional part load efficiencies
- + Direct-drive axial fan
- + Efficient plate evaporator with EEV refrigerant controls
- + Large surface area condensing coils maximise energy efficiency
- + Connects to direct rack cooling systems (individual or multi-rack)
- + Expandable, flexible solution as load increases
- + Modular design plus condensing coils and water connections at the rear, allow close side-by-side positioning
- + Reduced minimum system water volumes

Units within this range are non-Ecodesign compliant but can be used in process applications that are above >12°C supply water temperature, as these fall outside the Ecodesign parameters. Please refer to your Airedale account manager for full details



Ultima™ Remote Air Cooled** Ultima™ Water Cooled 75 - 450kW

Refrigerant GWP 1774, refrigerant weight range of 3.53 - 39.8kg (0.1 - 70.6 equivalent tonnes of CO₂)



- + **Up to 30% increase in system efficiency with optional electronic expansion valves**
- + 75 - 450kW nominal cooling capacities
- + 45 models
- + Standard, Quiet and Extra Quiet variants
- + Dual independent refrigeration circuits
- + Compact unit footprint
- + High efficiency plate heat exchangers

Units within this range are non-Ecodesign compliant but can be used in process applications that are above >12°C supply water temperature, as these fall outside the Ecodesign parameters. Please refer to your Airedale account manager for full details



Ultima™ Compact 30 - 150kW

Ultima™ Compact FreeCool 75 - 450kW

Refrigerant GWP 1774 (R407C - UCFC), GWP 2088 (R410A - UCCR), refrigerant weight range of 8.5 - 74.0kg (17.7 - 131.3 equivalent tonnes of CO₂)



- + **Up to 62% free-cooling of UCFC DX performance**
- + 75 models (UCC) and 45 models (UCFC)
- + Quiet and Extra Quiet ranges
- + Single and dual circuit models (UCC 30 - 75kW launching to 125kW early 2018); dual circuit on UCFC and UCC models (80 - 150kW)
- + Modulating head pressure control
- + Electronic expansion valves for up to 30% increase in system efficiency

UCCR = Ultima Compact

UCFC = Ultima Compact FreeCool

Units within this range are non-Ecodesign compliant but can be used in process applications that are above >12°C supply water temperature, as these fall outside the Ecodesign parameters. Please refer to your Airedale account manager for full details

Condensers | Condensing Units



BluCube™ Heat pump (10 - 48kW) Cooling only (13 - 40kW)

Refrigerant GWP 2088, refrigerant weight range of 8.5 - 11.1kg (17.7 - 23.1 equivalent tonnes of CO₂)



- + Up to 30% increase in system efficiency with remote electronic expansion valve (REEV); standard with digital scroll compressor, an option on fixed capacity models
- + 44% more cooling per m² average compared with a conventional CU system
- + ETL listed (cooling only models)
- + Integrates with industry standard air handling units
- + 2 case sizes; 24 models
- + Operating envelope -20°C to +25°C in heating or -20°C to +48°C in cooling
- + Two pipe system reducing installation time and cost
- + Digital scroll compressor for 16 - 100% variable capacity (model dependent)
- + Modulating head pressure control for increased efficiency
- + Short-cased axial fan to overcome external static pressure when ductwork is required
- + Fits into a standard lift facilitating easy installation
- + Compressor attenuation reducing compressor sound by up to 12dBA (option)
- + Integrated condensate drip tray (heat pump models) (option)



Air Cooled Condensers & Dry Coolers

See capacity below

Refrigerant GWP 2088 (R410A), GWP 1774 (R407C) refrigerant weight range of 4.2 - 14.5kg (7.6 - 25.9 equivalent tonnes of CO₂)



- + Microchannel reduces coil volume up to 50% reducing system refrigerant charge
- + Up to 70% more efficiency with EC fans option on R410A models
- + CR: 8 models (R410A)
- + C/CS: 10 models (R407C)
- + Dry coolers: 14 models
- + Small footprint, low profile for minimum space claim
- + Floor-mounted
- + Horizontal or vertical unit design for flexibility
- + Coil guards
- + Low sound levels
- + Discharge and liquid shut-off valves (option)

Capacity

CR: 12 - 195kW (R410A)
C/CS: 11 - 105kW (R407C)
DR: 10 - 100kW



Condensing Units 3 - 80kW THR

Refrigerant GWP 1774, refrigerant weight range of 0.6 - 4.7kg (1.1 - 8.4 equivalent tonnes of CO₂)

CU1 - CUS4 3 - 13kW THR



- + 8 models: Cooling only and heat pump variants
- + Reciprocating/Scroll compressor
- + Wall mountable, freeing up floor space
- + Small footprint with slimline design
- + Head pressure control optimising efficiency

CUS5 - 12 14 - 35kW THR



- + 5 models: Cooling only and heat pump variants
- + Floor mounted for external location
- + Low profile

CUS15 - 30D 40 - 80kW THR



- + 7 models: Cooling only
- + Scroll compressors for reduced sound, higher efficiency and lower electrical starting currents
- + Floor-mounted for external locations
- + Small footprint



Ultima™ Compact Condensing Unit 30 - 450kW THR

Refrigerant GWP 2088 (R410A), GWP 1774 (R407C) refrigerant weight range of 5.0 - 63.0kg (8.9 - 111.8 equivalent tonnes of CO₂)



- + **Up to 30% increase in system efficiency with remote electronic expansion valve (REEV) option**
- + 75 models for configuration flexibility
- + Standard, Quiet and Super Quiet variants
- + Dual independent refrigeration circuit for resilience and reduced operating costs (single circuit option on 30 - 80kW)
- + R410A variant available

THR: Total Heat of Rejection

Performance tested

And proven

Quality is assured by our on-site, world-class testing facilities that set the standard as one of the most advanced testing centres of its kind within the global air conditioning industry. This facility is integral to our development process and ensures our team of designers and engineers conduct a rigorous test program to produce and improve each of our manufactured units.

Airedale's dedicated test facility is the only purpose-built. Designed and built to exceed stringent international standards, our test centre is capable of testing a complete range of air conditioning equipment including precision air conditioning to 250kW and chillers up to 2MW.

We apply a consistent design philosophy which combines innovative sustainability with premium performance and efficiency across each range. Our state-of-the-art, on-site R&D laboratory is BS EN 14511 and BS EN 13053 compliant and allows us to test units for every application.

Our air conditioning units consistently offer some of the industry's leading proven environmental and cost performance figures, combined with the highest quality, reliability and service.



We have a positive, responsible partnership with Airedale in which we share knowledge

It is only through Airedale's continued site involvement that we can fine tune the system to such an extent. We don't mind spending capital expenditure to recoup such significant energy savings as these.

Paul Lovegrove - General Affairs Assistant Manager, Epson



Energy efficiency was the crucial factor

Airedale proved that its free-cooling chiller can save energy and is the right system for us. Anything that improves payback is of interest to the Society. We have also had good service from other Airedale products.

Steven Ward - Premises Engineer, Yorkshire Building Society



EDF Energy is already seeing a PUE of 1.2

I believe we are the first company in the world to install Airedale's advanced technology, the TurboChill™ FreeCool chiller. When the data centre is operating in free-cooling mode, the PUE has been measured at 1.2 and we expect that to reduce further as we install more equipment.





Bob Finn - Programme Manager, EDF Energy

Intelligent controls

Seamlessly managing your system

The control centre of each of our cooling systems is a sophisticated electronic microprocessor specially developed by Airedale. The intelligent microprocessor uses sensors which allow active components to interact. By integrating and sequencing components, the controller manages and optimises the system's performance, availability and power draw, giving the operator complete system control.

Fully-programmable via the control panel's user-friendly display, the microprocessor can be linked with all standard BMS protocols to:

-  **Trigger alarm messages**
-  **Send alarm/service messages via email or SMS using an interface**
-  **Operate time scheduling**
-  **Allow adjustment of temperature setpoints**

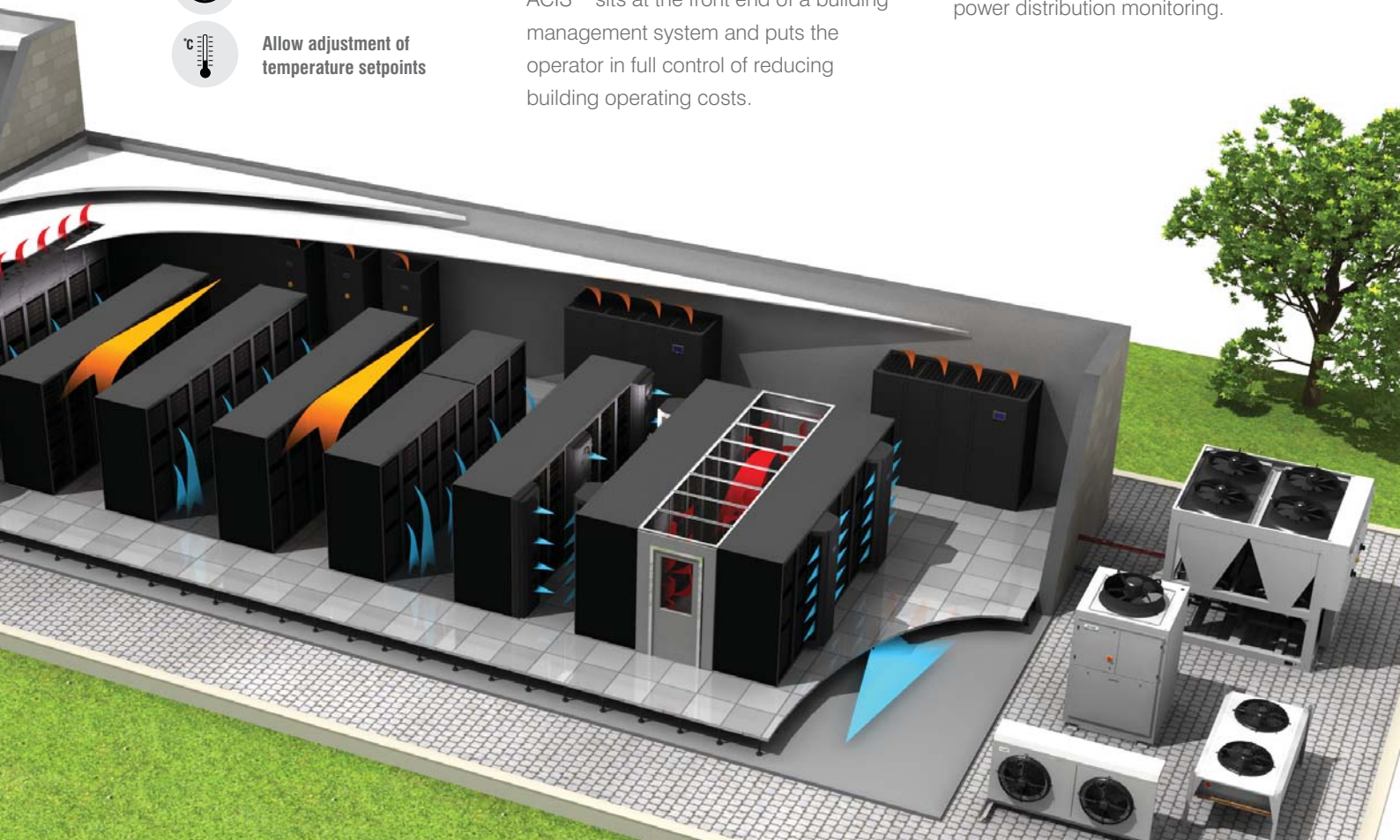


ACIS™

ACIS™ is a building management system developed, by Airedale, which enables smart cooling and other building services, from any manufacturer, to be managed through a single, integrated solution across multiple sites and communication protocols.

ACIS™ sits at the front end of a building management system and puts the operator in full control of reducing building operating costs.

Through the click of a button on a PC, tablet or phone, intelligent information can be retrieved automatically allowing informed, data driven decisions to be made. With 24/7 access, ACIS™ provides an ideal solution for remote monitoring and maintenance, including live PUE, EER and COP calculations and power distribution monitoring.



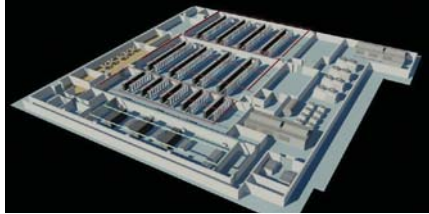
Tailor-made for you

Working in partnership

Customer focus is central to our core principles at Airedale. We will work closely with you to adapt our flexible systems to fit exactly to your specific cooling needs and energy requirements.

Communication is key to understanding your requirements so we ensure you are kept informed and actively involved every step of the way.

Our ability to handle complex projects worldwide and meet the toughest of deadlines ensures we always deliver quality assured products and service, no matter how challenging the task.



London Data Exchange

£5m colocation facility

4 x 280kW DeltaChill™ FreeCool chillers supplying chilled water to 10 x chilled water 110kW SmartCool™ precision air conditioning units, each providing under floor cold aisle delivery at a constant 22°C to contained aisles

Benefits:

- PUE less than 1.3
- Free-cooling for up to 95% of the year
- 13% less space claim
- N + 1 redundancy



The University of Leeds

HPC facility

3 x OnRak™ rear door heat exchangers each providing 28kW high density cooling

2 x 240kW Ultima™ Compact FreeCool chillers

Benefits:

- OnRak™ is ideal for high density HPC facilities
- Slots into existing cooling loop; expandable
- Eliminated need to build a new computer room
- Extremely compact 200mm profile
- Free-cooling for up to 95% of the year
- 35% savings in energy



National Gallery

6 x TurboChill™ chillers supplying chilled water to a primary circuit

The TurboChill™ replace existing R22 chillers with a bespoke, sequenced chiller solution, integrating new technologies; modern refrigerant and design criteria and increased control

Benefits:

- ESEER 5.87
- £16,000 energy saving in first year
- Enhanced reliability and less maintenance
- Matches existing rooftop space and connections



Victoria & Albert Museum

Computer room

4 x 40kW EasiCool™ downflow precision air conditioning units

Each EasiCool™ provides under-floor cold aisle delivery of 120kW cooling and reliable environmental control of the data centre space.

Benefits:

- N+1 redundancy
- Scalable and future proof

Total support

Whenever you need it

At Airedale, we don't just manufacture and supply cooling and refrigeration products; we also provide a broad range of supporting services to ensure our customers receive the best possible aftersales care.

With more than 40 years' experience in business critical cooling, investing in an Airedale cooling or refrigeration solution means that you can benefit from our advice, expertise and technical support too. From design and selection, through to commissioning and beyond, we make sure your system reduces your total cost of ownership, whilst providing maximum availability and longevity.

Service plans Maximising your system's effectiveness 24/7



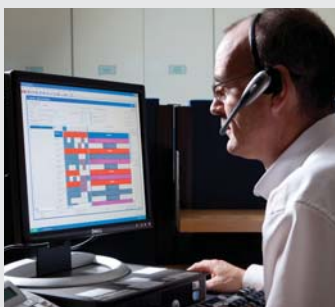
An Airedale service plan provides a planned, preventative maintenance package to sustain the optimum efficiency of your system, enabling the user to see real savings in energy costs and reduced carbon emissions.

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.

A guaranteed emergency response time means that a qualified Airedale engineer will be with you in no time, therefore maximising your system's uptime. Service plans also ensure F Gas compliance and incorporate a full parts and labour warranty for the first 12 months.

For more information visit www.airedale.com

* For customers outside the UK, our international distributors trained by Airedale would be pleased to offer service on Airedale units



**Talk directly with
an experienced
engineer**

Find out how we design our systems to reduce your whole life costs. Our highly experienced engineers are adept at tailoring our systems to suit your requirements.

+44 (0)113 239 1000



**Have complete
control of your site**

Customers with critical sites can benefit from our remote monitoring facility. Aftersales services include chiller sequencing, network setup and integration as well as a live demonstration and training centre at our head office.



**24/7 support;
maintenance and
spares**

Immediate help on hand to keep your critical cooling system operational. Realise the full potential of your system; improve its longevity and efficiency and be F Gas compliant. Avoid downtime with our fast, efficient spares service.



**Develop
your skills**

Learn more about your cooling system by attending an air conditioning and refrigeration course in our purpose-built training school. Train on high-tech cooling systems and fully operational rigs in our dedicated workshops. Industry recognised courses also available. Email training@airedale.com for further details.



M&S



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