

# Product Range



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## > Product Range

Incorporating the following ranges:

- > Precision air conditioning
- > IT Cooling
- > Comfort
- > Chillers
- > Condensers/Condensing Units

[www.airedale.com](http://www.airedale.com)

Free-cooling chillers  
**NEW!**

## Product range

Airedale International overview

### Airedale: Industry leader

Part of the Modine group of companies, Airedale designs and manufactures an extensive range of efficient, intelligent and flexible cooling solutions for a global market.

Airedale was founded in 1974 and has grown to become an industry leader in the research, design and manufacture of an extensive range of chillers, precision air conditioning and comfort products. Airedale's 25,000m<sup>2</sup> production facility and £2.5 million test centre in Leeds, UK, is regarded as a centre of excellence for air conditioning.

Innovative product development is key to Airedale's success, setting industry standards and giving Airedale the edge when it comes to manufacturing expertise and addressing industry, economic and environmental challenges.

Fine-tuning products to meet the demands of a wide range of market and customer needs has ensured that Airedale remains a first choice for air conditioning in data centres, telecommunications, banking and commerce and in the leisure, retail, defence, education and industrial sectors.

### Global manufacturing

Airedale has manufacturing facilities in USA, South Africa and China and employs 450 worldwide. Its products are distributed to more than fifty countries through a network of well-established business partners and distributors.

### R&D promotes energy efficiency

Airedale products are developed with skill and care to maximise their energy efficiency. 'Green' issues such as carbon reduction technology and leak detection now play a major role in all Airedale research and development programmes. Airedale products are assembled using the very best materials and most efficient components available, and are extensively tested before despatch.

### State-of-the-art factory and test facility

Delivering air conditioning solutions to a wide variety of discerning customers with diverse requirements, demands the highest levels of investment in manufacturing technology, systems and skilled engineers. Airedale's UK facility and cutting-edge test centre feature the very best facilities. Designed and built to exceed stringent international standards, the test centre is capable of testing a complete range of air conditioning equipment for a global market. The test centre features two environmental test chambers with cooling and heating capacity ranges from 2kW to 120kW and a chiller test cell capable of testing chillers up to 1MW. The climate temperature in the chambers is fully controllable anywhere from -5°C to +55°C. The test centre also includes a hemi-anechoic chamber providing a dedicated, controlled environment for accurate measurement of product sound data.

### About Modine

Modine Manufacturing Company, based in Wisconsin, USA, has been a global leader in thermal management solutions for 90 years. Modine designs, tests and manufactures heat transfer products for a wide range of applications and markets. The company employs 7,700 people worldwide at 34 facilities located in North America, Europe and Asia.





### Airedale Service

Airedale Service is a complete air conditioning service solution provider that has invested and expanded to encompass the following strategic services:

- > Individually tailored Service and Maintenance contracts
- > Emergency breakdown repairs
- > Controls upgrades on both new and existing equipment. Existing mechanically sound equipment can be upgraded to the very latest in controls technology
- > Facilitating compliance with current environmental regulations such as refrigerant conversion and leak testing
- > AsNew Refurbishment. If equipment cannot be replaced due to space restrictions, we can completely modify the unit on site
- > Energy savings through operational optimisation. Our experienced engineers will recommend alterations to unit setup that will achieve the required conditions whilst remaining focused on reducing running costs

Airedale Service has now built up an extensive customer base throughout the UK, comprising many of the country's largest blue-chip PLCs as well as independent companies in a wide range of sectors.

As one would expect from a leading manufacturer within the industry, our industry-trained regional engineers are highly experienced and work to exacting professional standards. This ensures a rapid response, with 24/7 emergency helpline technical support, underpinned by the continuity of service that all our customers have come to regard as the norm from such a respected organisation as Airedale. Fully certified according to the latest industry guidelines, our engineers ensure that work is carried out in a safe and professional manner.

For further details, please contact Airedale Service on 0113 239 1000 or visit [www.airedale.com](http://www.airedale.com)



### AireTronix Controls technology

Obtaining maximum performance and energy efficiency requires effective controls technology. Airedale's AireTronix controls solutions ensure that systems operators get the very best return on their investment. Airedale specialists design, install and commission sophisticated controls solutions to ensure that every installation delivers the maximum benefit available. The network-capable AireTronix controller can be integrated into a wide range of BMS protocols. Remote monitoring enables engineers to supervise the operation of many components, adjust set points and amend operational parameters without the need to arrange site visits.

Most Airedale units are now equipped with the very latest AireTronix microprocessor technology. These fully programmable controllers are specifically developed for use with Airedale air conditioning systems, offering powerful analogue and digital control to meet a wide range of monitoring and control features.

For further details, please contact Airedale Controls on 0113 239 1000 or visit [www.airedale.com](http://www.airedale.com)

## Product range

### Precision Air Conditioning



- > Data centres
- > Telecom switching stations
- > ISP facilities
- > Computer rooms
- > Clean rooms
- > Switching stations
- > Laboratories

## Precision Air Conditioning

### SmartCool

- > Designed and optimised for R410A
- > DX air/water cooled (60 - 130kW), chilled water (60 - 180kW) and free-cooling models; single and dual circuits
- > Downflow configuration (upflow to follow soon)
- > Dual cool redundancy options; efficient free-cooling variant
- > Advanced AireTronix controls and ACIS
- > Up to 6 stages of tandem scroll compressor DX cooling
- > Modulating 30 - 90Hz inverter driven compressors (option)
- > Direct drive, speed controllable AC fans (indoor and outdoor)
- > EC fans (indoor and outdoor) for up to 70% more efficiency (option)
- > Automatic adjustment of air volume (option)
- > Hot gas re-heat for up to 88% saving in power input (option)
- > High efficiency de-humidification (option)
- > Electronic expansion valves for 30% increase in efficiency (option)
- > Thyristor-controlled electric heating for precise control (option)
- > Suction throttle valve technology for variable capacity (option)
- > Dual power supply for redundancy and flexibility (option)
- > Variable air flow (option and dependant on application)

### EasiCool

- > Designed and optimised for R410A
- > 6 - 60kW nominal cooling capacities
- > 76 DX (38 air cooled and 38 water cooled) and 34 chilled water models, in 6 case sizes and in either upflow or downflow configuration
- > Tandem scroll compressors for part load efficiencies (models 20-60kW)
- > Advanced AireTronix controls technology
- > AV mounted, direct drive, speed controllable fan technology (models 6-26kW)
- > Optional direct drive EC fan upgrades for all indoor and outdoor units
- > Electronic expansion valves (option) provide up to a 30% increase in operational efficiency (fully adjustable from the display)
- > Hot gas re-heat (option) efficiently re-heats cool air during dehumidification
- > Electric heating option can be upgraded with thyristor control for fully modulated output
- > Suction throttle valve (option) provides 50 - 100% variable capacity regulation for precise setpoint control and matching cooling to application
- > Low noise
- > Variable humidification for precisely conditioned air
- > Single circuit system delivers low installation cost
- > Full 360° service and maintenance access
- > Hydrophilic fin cooling coil
- > Modular construction (upflow and downflow) and optional plenum (upflow only)

### AlphaCool\*

- > 8 - 101kW nominal cooling capacities
- > DX, chilled water and glycol free-cooling systems
- > 102 models in 5 case sizes
- > Upflow and downflow configurations
- > Advanced AireTronix controls technology
- > Electronic expansion valve technology
- > AV mounted fans
- > Optional EC fan upgrades for indoor units
- > Direct drive, speed controllable fan technology (models 9-19)
- > Low noise and vibration emission levels
- > Single, dual and triple circuit systems for staged cooling control
- > Variable humidification for precisely conditioned air
- > Scroll compressors for efficient operation
- > G6 rated filters for high efficiency filtration



### AlphaCool Plus

- > 95 -136kW nominal cooling capacities (chilled water only)
- > 2 models in 2 case sizes
- > Downflow configuration
- > Advanced AireTronix controls technology
- > Direct drive, backward curved fans (speed controllable)
- > Variable humidification for precisely conditioned air
- > Low noise and vibration emission levels
- > Constantly optimised air volume for trouble-free operation
- > Dual housing construction. Fan section hidden in floor void
- > High efficiency slab coil design for optimum heat transfer
- > Minimal servicing due to self optimisation and efficient operation



### Ecotel Outdoor

- > 5 - 19kW nominal cooling capacities (DX and free-cooling)
- > 10 models in 5 case sizes
- > Upflow configuration
- > Advanced AireTronix controls technology
- > Hermetic scroll compressors
- > Backward curved centrifugal fans
- > Large surface area coils
- > Ultra quiet operation
- > Vandal-proof fixings, integrally punched grilles and low profile fan mouldings
- > 'Clip -On' mountings maximise floor space
- > Electric heating option
- > Emergency cooling option



\* Selected models feature compressors which, due to their superior energy efficiency, are registered under the Enhanced Capital Allowance scheme for tax relief - details on [www.eca.gov.uk](http://www.eca.gov.uk).

## Product range

LogiCool - IT cooling solutions



- > Data centres
- > ISP facilities
- > Computer rooms

LogiCool  
IT cooling solutions

### OnRak\*

- > High efficiency rear door heat exchanger
- > Variable speed fan for precise cooling between 3 - 33kW
- > Two configurations: (n) 33kW cooling (100% air volume); optional (n+1) 28kW cooling (75% air volume)
- > Designed to fit 42 - 47 U racks
- > Supplied with integrated rack or adapted to fit a customer specific rack
- > EC axial fans for ultimate efficiency
- > EER 108 (n); 174 (n+1)
- > Pressure differential management - maintaining pressure in the rear of the rack within the server design envelope
- > Flexible water connections maintain cooling when door open
- > Hot swappable fans
- > Water detection and automatic isolation
- > Self-regulating constant flow control simplifies commissioning
- > High efficiency aluminium fin heat exchanger with integral coil guard

### InRak\*

- > Dual cool featuring concurrent DX and CW (option)
- > n+1 fan configuration
- > Aisle differential pressure control
- > Dual power supply/static transfer switch (option)
- > Hot swappable fan management
- > EC fans for up to 70% more efficiency
- > Designed and optimised for R410A
- > Compact design for increased cooling per square metre

### ECHO High Efficiency IT Cooling System\*

The perfect future-proof solution to meet the cooling parameters of the latest IT hardware, not only in terms of temperature but also airflow and pressure.

- > Outstanding energy efficiency providing reduced operating costs
- > Variable rack load densities to a maximum of 20kW per rack
- > No chilled water/refrigerant connections at the rack or in the IT space
- > Control is led from rack level, rescheduling the Airedale ECHO CRAC unit and free-cooling chiller to optimise performance.
- > The entire technical space is at the server inlet temperature, thus avoiding hot spots and providing a buffer of cool air in the event of failure
- > With no hot/cold aisle configuration, the technical space available for IT equipment is increased





- > Commercial environments
- > Leisure environments
- > Superstore warehouses
- > Department stores
- > Retail outlets
- > Office environments

Comfort

### StoreMaster



- > Designed and optimised for R410A
- > Cooling and heat pump variants
- > 2 models: 50 and 77kW nominal cooling capacity (both cooling only and heat pump variants)
- > 57 - 75kW heating capacity with reverse cycle (dual circuit heat pump variant only)
- > Packaged or split modules (evaporator / condenser)
- > Modulating AireTronix controls technology with remote access
- > 0 - 100% free-cooling as standard
- > EC high efficiency supply air fans for ultimate efficiency
- > Tandem scroll compressors on a single circuit for improved efficiency at part load (cooling-only version)
- > Inverter-driven\* condenser fan and return air fan

\* Qualifies for the Carbon Trust ECA scheme [www.eca.gov.uk](http://www.eca.gov.uk)

### Chilled Water Cassette



- > 11 models with cooling capacities from 2 - 11kW
- > Available in 2 pipe and 4 pipe configurations
- > Efficient AC backward curved fan technology as standard
- > Low sound, slimline, aesthetic design
- > Flexible heating and cooling options
- > Heating option based on a LPHW heating coil
- > Electric heating option (two pipe variant only)

### Concept



- > 4 - 9kW nominal cooling capacities (DX and chilled water)
- > 4 models
- > Infra-red controls
- > Slimline aesthetic design
- > Low wall mounted
- > Low noise
- > Electric heating option
- > Simple installation
- > Easy maintenance
- > 3-speed fan control

## Product range

### Chiller range



- > Precision Air Conditioning
- > Comfort cooling
- > Process cooling

## Chillers

### DeltaChill (DCC) DeltaChill FreeCool (DCF)



- > Designed and optimised for R410A
- > 150 - 450kW (DCC) and 100 - 450kW (DCF) nominal cooling capacities
- > 65 models (DCC) and 34 models (DCF) with additional configuration flexibility available
- > ESEER up to 4.67 (DCC) and above 4.5 (DCF) with EC fan option
- > Single or dual refrigeration circuits; 2-6 stages of cooling
- > Low sound ranges: Quiet (R) and Extra Quiet (X)
- > Advanced, intelligent AireTronix controls technology
- > Modular, efficient 'V' frame coil arrangement
- > Inverter-controlled pump ensures constant water flow (option)
- > DCF: E-coated microchannel coils reduce life cycle costs

### OptiChill (OPC) OptiChill FreeCool (OFC)



- > 500 - 1100kW (OPC) and 750 - 1300kW (OFC) nominal cooling capacities
- > Designed and optimised for R134a
- > OPC: 13 capacity sizes including High Efficiency and High Efficiency Plus ranges as well as two sound level variants in each range.
- > OFC: 4 case sizes: 3 fan variants and two sound variants in each range
- > Dual independent refrigeration circuits
- > Advanced AireTronix controls technology
- > Intelligent head pressure control
- > EC fans: Standard on OPC, Option on OFC
- > Two modulating screw compressors: for optimum efficiency and reliability - 8 stages of cooling on OFC
- > Large surface area condensing coils
- > OFC: ETL listed on selected models

### TurboChill



- > Designed and optimised for R134a
  - > 200 - 1100kW modular capacity range; single or dual circuit models
  - > Centrifugal oil-free Turbocor compressor technology
  - > Variable speed control for super efficiency
  - > ETL listed
  - > In-built compressor low current start (2A)
  - > Low sound: Quiet and Super Quiet options
  - > EC fans as standard for ultimate efficiency
  - > ESEER up to 5.6
  - > Electronic expansion valves typically double efficiency at low ambient
  - > Up to four compressors on a single circuit increases efficiency at part load
  - > Intelligent compressor managed by network-capable AireTronix controls
  - > Flooded evaporator for optimum system efficiency
- [Free-cooling models available, details on request](#)



### EcoChill

- > Designed and optimised for R410A
- > 6 - 44kW nominal cooling capacity
- > 6 - 46kW nominal heating capacity
- > 11 models available
- > ESEER up to 4.25
- > Class A EER up to 3.38
- > Full hydronics package available
- > Compact configuration: greater cooling per square metre



### LogiCool FreeCool

- > Designed and optimised for R410A refrigerant
- > 20kW or 40kW cooling modules
- > Air cooled with integrated free-cooling capability
- > ETL listed
- > Compact footprint (from 1.5m<sup>2</sup>) and modular design
- > Advanced AireTronix Controls and remote access from any BMS
- > Innovative digital-scroll compressor technology
- > Direct-drive axial fan with optional EC fan motor technology
- > Efficient plate evaporator with EEV refrigerant controls



### Ultima Compact (UCC)

#### Ultima Compact FreeCool (UCFC)\*\*

- > 30kW - 450kW (UCC) and 75 - 450kW (UCFC) nominal cooling capacities
- > 75 models (UCC) and 45 models (UCFC)
- > ETL listed
- > Standard, Quiet and Super Quiet variants
- > Advanced AireTronix controls technology
- > Multiple scroll compressors
- > Single and dual circuit models (UCC 30-80 only); dual circuit on all larger UCC models and on UCFC
- > Simultaneous mechanical and free-cooling operation for maximum energy saving (UCFC)
- > Electronic expansion valve technology (not standard on every model)
- > Modulating head pressure control



### Ultima Water Cooled

#### Ultima Remote Air Cooled (pictured)\*\*

- > 75 - 450kW nominal cooling capacities
- > 45 models
- > ETL listed
- > Standard, Quiet and Super Quiet variants
- > Advanced AireTronix controls technology
- > Multiple scroll compressors
- > Dual independent refrigeration circuits
- > Electronic expansion valve technology
- > Compact unit footprint
- > Designed for energy efficient operation
- > High efficiency plate heat exchangers

\* ESEER (European Seasonal Energy Efficiency Ratio)

\*\* Other Ultima products available including the Ultima FreeCool



## Condensers Condensing Units

- > Precision Air Conditioning
- > Comfort Cooling applications



### BluCube Condensing Unit

- > Designed and optimised for R410A
- > Choice of heat pump (14-44kW) or cooling only (13-40kW)
- > 2 case sizes; 6 cooling and 6 heating capacities; 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
- > Compact, modular design for minimum space claim
- > Fits into a standard lift facilitating easy installation
- > EC fan (option) for ultimate efficiency
- > REEV (option) offering up to 30% increase in efficiency



### Air Cooled Condenser C/CR/CS 11-165

- > 12 – 165 kW (R410A)
- > 11 – 105 kW (R407C)
- > 8 models for R410A
- > 10 models for R407C
- > Small footprint, low profile
- > Floor mounted
- > Horizontal or vertical unit design
- > Coil guards
- > EC fan (option) with R410 models
- > Low noise levels
- > Discharge and liquid shut-off valves



### Ultima Compact Condensing Unit

- > 30 - 450kW nominal THR capacities
- > 75 models
- > Standard, Quiet and Super Quiet variants
- > Advanced AireTronix controls technology
- > Multiple scroll-compressors
- > Dual independent refrigeration circuit (single option on UCCU30-80)



### Condensing Units CU1 - CUS4

- > 2.8 - 13kW nominal THR capacities
- > 8 models
- > Small footprint with slimline design
- > Wall mountable
- > Cooling only and heat pump variants
- > Mains isolator and head pressure control as standard



### Condensing Units CUS5 - 12

- > 14 - 35kW nominal THR capacities
- > 5 models
- > Cooling only and heat pump variants
- > Floor mounted
- > Heat pump with heating capacities ranging from 14 - 23kW
- > Scroll compressors offering lower noise, reduced vibration and lower electrical starting currents
- > Low profile



### Condensing Units CUS15 - 30D

- > 40 - 80kW nominal THR capacities
- > 7 models
- > Small footprint
- > Low noise levels
- > Cooling only
- > Floor mounted for external locations
- > Accessories offered for each individual application

## Product Range

For full details visit [www.airedale.com](http://www.airedale.com) to download individual product brochures and comprehensive technical manuals or call Airedale on +44 (0) 113 239 1000.

Your nearest Airedale distributor is:



ISO 14001  
EMS52086



ISO 9001  
RM00542



air conditioning for every environment

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