

Product Range



Authorised User No. 00007

> Product range

Incorporating the following ranges:

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

www.airedale.com

IT COOLING RANGE
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 25,000m² 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



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

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
- > 60 – 150kW nominal cooling capacities; downflow configuration
- > DX air/water cooled (60 – 130kW), chilled water and free-cooling models
- > Dual cool redundancy options; efficient free-cooling variant
- > Advanced AireTronix controls
- > Up to 6 stages of tandem scroll compressor DX cooling
- > Modulating, (30 – 90Hz) inverter driven compressor (option)
- > Direct drive backward curved AC centrifugal fans
- > EC fans (indoor and outdoor) for ultimate efficiency (option)
- > Automatic adjustment of fan performance maintains air flow rates (option)
- > Efficient hot gas re-heat for reduced power input (option)
- > High efficiency de-humidification circuit (option)
- > Electronic expansion valves for part load efficiency (option)
- > Thyristor-controlled electric heat for precise control (option)
- > Suction throttle valve technology for variable capacity (option)
- > Adiabatic cooling for condensers and dry coolers (option)
- > Dual power supply for redundancy and flexibility (option)
- > G4 (EU4) air filtration

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 20-60)
- > Advanced AireTronix controls technology
- > AV mounted, direct drive, speed controllable fan technology (models 6-26)
- > 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.

Product range

LogiCool - IT cooling solutions

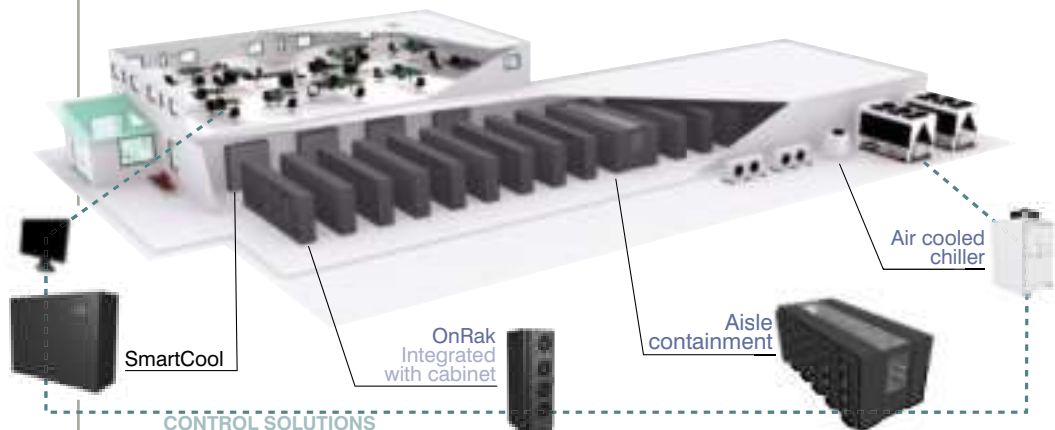


- > Data centres
- > ISP facilities
- > Computer rooms

LogiCool
IT cooling solutions

OnRak*

- > High efficiency rear door heat exchanger
 - > Variable speed fan for precise cooling between 3 – 33kW
 - > Two product configurations: (n) 33kW cooling (100% air volume); optional (n+1) 28kW cooling (75% air volume)
 - > Designed to fit 42 - 47U racks
 - > Supplied with integrated rack or adapted to fit a customer-specific rack
 - > EC axial fans for ultimate efficiency
 - > EER of 108 (n); 174 (n+1)
 - > Pressure differential management - maintaining pressure in the rear of the rack within the server design envelope
 - > Advanced AireTronix control system solutions
 - > 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
 - > Isolating solenoid valves (option)
 - > Depth 200mm
 - > Operating weight 75kg
 - * Pictured integrated with rack cabinet
- > **COMING SOON** InRak - 60kW
The LogiCool InRak is a next generation in-row IT cooling solution for data centre applications.
- > **COMING SOON** Echo - High efficiency IT Cooling System, that includes ACE (Active Cabinet Exhaust), CRAC unit, Chiller and Controls solution





- > 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



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



- > Designed and optimised for R410A
- > 100 – 450kW nominal cooling capacities
- > 42 models; additional configuration flexibility available
- > Dual independent refrigeration circuits; 2-6 stages of cooling
- > Advanced, intelligent AireTronix controls technology
- > EC fans (option) raise ESEER* to above 4.5
- > Efficient interactive head pressure setpoint management
- > Sequenced scroll compressors optimise efficiency
- > Modular, efficient 'V' frame coil-fan arrangement
- > Large surface area condensing coils per fan
- > Low sound options
- > Compact configuration; easily accessed for maintenance
- > Inverter controlled pump ensures constant water flow (option)
- > **COMING SOON** DeltaChill FreeCool - 100-450kW

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](#)

OptiChill



- > Designed and optimised for R134a
- > 750 - 1350kW nominal cooling capacities
- > 52 models: 13 capacity sizes each offer a High Efficiency and a High Efficiency Plus range, with 2 sound level variants in each range
- > ETL listed
- > Electronic expansion valves
- > Dual independent refrigeration circuits
- > Advanced AireTronix controls technology
- > Intelligent head pressure control
- > Two modulating screw compressors for optimum efficiency
- > Shell and tube evaporator
- > Large surface area condenser coils
- > Latest fan technology for reduced power input and sound
- > **COMING SOON** OptiChill FreeCool - 750-1350kW

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 1.5m²) 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 FreeCool

- > 200 - 750kW nominal cooling capacities
- > 39 models
- > Simultaneous mechanical and free-cooling operation for maximum energy saving
- > ETL listed
- > Standard, Quiet or Super Quiet variants
- > Advanced AireTronix controls technology
- > Single screw compressors
- > Sickle-bladed fans for lower sound levels
- > Intelligent modulating fan speed control
- > Electronic expansion valve technology
- > Dual independent refrigeration circuits
- > Modulating 3-way water valve

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)

Product range

Condensing Unit range



Condensers Condensing Units

- > Precision Air Conditioning
- > Comfort Cooling applications



Air Cooled Condenser CR12 - 165

- > Designed and optimised for R410A
- > 12 - 165kW nominal total heat rejection capacities
- > 8 models
- > Optional EC fans housed in full bellmouth for ultimate efficiency
- > Small footprint, low profile, common horizontal and vertical unit design
- > Floor mounted
- > Low noise levels
- > Coil guards
- > Discharge and liquid shut-off valves



Air Cooled Condenser C11 - 90

- > 12 - 90kW nominal total heat of rejection (THR) capacities
- > 10 models
- > AC fans housed in short bellmouth for improved performance
- > Small footprint
- > Floor mounted
- > Low noise levels
- > Low profile
- > 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

- > **COMING SOON** BlueCube - 80kW
High efficiency R410A condensing unit with heat pump

Product Range

For full details visit 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
EMSS2096



ISO 9001
FMQ0542



Mixed Sources

Product group from well-managed forests, controlled sources and recycled wood or fiber

www.fsc.org Cert no. SGS-COC-005841
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A **MODINE** Company

All specifications are subject to change without prior notice
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