



# DRY COOLER RANGE

ECO<sup>™</sup> heat transfer  
coolers



# UNPARALLELED **EFFICIENCY**

## ROBUST CONSTRUCTION



### OUR DRY COOLERS ARE DESIGNED IN A RANGE OF COOLING CAPACITIES TO COVER A WIDE SPECTRUM OF APPLICATIONS.

With an extensive cooling capacity of up to 1,882kW our Dry Cooler range has been engineered using the very best dry cooling technology and components to increase efficiency and deliver improved performance.

### COILS

All units are equipped with highly efficient coils that are made from special profile aluminium fins and copper tube. In order to avoid possible damage to the tubes particular attention has been given to the design of the coil end plates.



### CASINGS

The casings of our units are designed to allow easy access to internal components and are made from pre-painted galvanized steel sheet with the following characteristics:

- high corrosion and impact resistance;
- resistant to low temperatures;
- non-toxic;
- does not produce polluting debris;
- completely covered in a protective plastic film.

### FAN MOTORS

The standard fan motors are manufactured according to our specifications and are in compliance with the latest safety standards, and when possible they are fitted to the unit structure with an anti-vibration system.

### FAN GUARDS

The fan guards are made from fiberglass charged polyamide or painted steel and are manufactured in compliance with strict safety standards.

### WIRING

Wiring is carried out in robust junction boxes with access holes equipped with tear-proof cable glands.

# UNIT RANGES



## KCE RANGE

Capable of delivering up to 1249kW of cooling, with either single fan row (1-5 fans) or double fan row (4-14 fans) units available. The KCE range can be configured for both vertical and horizontal airflow.

## TECHNICAL FEATURES

### PERFORMANCE RANGES

- Nominal capacity: 9.5 - 1249kW \*
- Sound pressure level: from 16 to 66 dB A (10m)
- Customised on demand

### COIL FEATURES

- High heat exchange efficiency with low inner volume
- Designed with special "Air Intake" profile aluminum fins and inner grooved copper tubes
- Charge: dry air at 2 bars

### CASING FEATURES

Made of pre-painted galvanized steel sheet, covered by a plastic protection film.

### FAN MOTOR FEATURES

- Diameter: 500 - 630 - 710 - 800 - 910 - 1000 mm (fan size dependent on unit size)
- Three-phase, with external rotor
- Voltage: 400V/3/50 Hz
- Sickle blade, latest generation low sound emission fan profiles
- Protection grade: IP 54
- Inner thermal contact protection

### FAN GUARD FEATURES

Manufactured from epoxy-coated steel, according to EN 294 standards

### TESTING

Dry coolers are tested to 16 bars

\* Published capacities are declared as per EN 1048. For specific conditions contact Airedale.



# UNIT RANGES



## VCE RANGE

The VCE range consist of double coil, modular dry coolers housing up to 18 fans. Designed for high capacity cooling with a small footprint, internal baffling improves airflow and avoids air bypass issues in a fan fail condition.

## TECHNICAL FEATURES

### PERFORMANCE RANGES

- Capacity: from 101 to 1882 kW \*
- Sound pressure level: from 23 to 68 dB A (10 m)
- Customised on demand

### COIL FEATURES

- High heat exchange efficiency
- Designed with special "Air Intake" profile aluminum fins and inner grooved copper tubes
- Fin spacing: 2.1 mm
- Charge: dry air at 2 bars

### CASING FEATURES

Made of a pre-painted galvanized metal sheet

### FAN MOTOR FEATURES

- Diameter: 800 or 910mm
- Three-phase, with external rotor
- Voltage: 400V/3/50Hz
- Sickle blade
- Protection grade: IP 54
- Internal thermal contact protection

### FAN GUARD FEATURES

Manufactured from epoxy-coated steel, according to EN 294 standards

### TESTING

Dry coolers are tested to 16 bars

\* Published capacities are declared as per EN 1048. For specific conditions contact Airedale.



## VCC RANGE

The VCC range offers a containerised version of the VCE range, for shipping in standard freight containers.

## TECHNICAL FEATURES

### PERFORMANCE RANGES

- Air cooled condensers capacity: from 95.5 - 1379 kW \*
- Sound pressure level: from 23 - 61 dBA (10 m)
- Customised on demand

### COIL FEATURES

- High heat exchange efficiency
- Designed with special "Air Intake" profile aluminum fins and inner grooved copper tubes
- Fin spacing: 2.1 mm
- Charge: dry air at 2 bars

### CASING FEATURES

Made of a pre-painted galvanized metal sheet

### FAN MOTOR FEATURES

- Diameter: 800 mm
- Three-phase, with external rotor
- Voltage: 400V/3/50Hz
- Sickle blade
- Protection grade: IP 54
- Internal thermal contact protection

### FAN GUARD FEATURES

Manufactured from epoxy-coated steel, according to EN 294 standards

### TESTING

Dry coolers are tested to 16 bars

\* Published capacities are declared as per EN 1048. For specific conditions contact Airedale.

# NOMENCLATURE, OPTIONS & CONTROLS

## Nomenclature explained

		KCE	9	2	B	2	-	D	E	A	V	EC	W42
KCE / VCE / VCC	Product Identification												
5/6/7/8/9/1	Fan size												
1-14/4-18	Number of fans												
A/J/B/M/C/N/S/D/G/E/F/L	No. of fan motor poles												
	Heat exchanger reference												
-	Separator												
S/D	Fan wiring												
Blank / E	Extended												
Blank / A	Stretched												
H / V / Blank	Airflow direction												
Blank / EC	AC Fans / EC Fans												
	Circuiting reference												

## OPTIONS

The following options can be included with the units:

## ELECTRICAL CONTROL PANELS

- Fan switches
- Fuse protection for groups of fans

## TUBE MATERIALS

- Copper
- AISI 304 stainless steel

## FAN SPEED CONTROL

- Phase chopped
- Voltage step control
- Inverter control (frequency modulation)
- EC fans

## FIN MATERIALS OR COATINGS

- Aluminium
- Copper
- Blygold coating
- Pre-painted fins

## SPECIAL FANS

- 60Hz frequency
- Alternative voltages
- High ambients

# INTELLIGENT CONTROLS: SEAMLESSLY MANAGING YOUR SYSTEM



The control centre of each of our cooling systems is a sophisticated electronic microprocessor with control logic specially developed by Airedale.

The microprocessor uses sensors to send and receive messages to and from active components such as compressors, fans and pumps so they interact with each other, balancing cooling duty, temperature, air flow and pressure to exactly match the application.

By integrating intelligent components, the controller manages and optimises the system's performance and reduces power draw.

## INTEGRATION PROTOCOLS

Modbus®

SNMP

BACnet™



ECHOLON  
THE LONWORKS COMPANY

## SMART NETWORKING SOLUTIONS:

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™ BMS

## ONE SOURCE, COMPLETE VISIBILITY

ACIS™ BMS, AIREDALE'S EXCLUSIVE BUILDING MANAGEMENT SYSTEM IS AN INNOVATIVE, SCALABLE AND FUTURE-PROOF SOLUTION WHICH HAS BEEN SPECIFICALLY DESIGNED TO ENHANCE SYSTEM PERFORMANCE, DRIVE DOWN OPERATIONAL COSTS AND AID DECISION MAKING FOR A WIDE RANGE OF BUILDING SERVICES.

Offering a more pre-emptive BMS solution, ACIS™ is able to make decisions, delivering a higher level of building intelligence. With its simplistic and intuitive interface, ACIS™ BMS allows you to gain access anytime, anywhere to your building's systems, enabling you to manage building services from any manufacturer across multiple sites through a single integrated system.

A wide range of features enable total system efficiency to be evaluated, puts the user in full control, provides complete visibility of all building services and offers total facility integration.



Complete Visibility of Building Infrastructure



Secure Remote 24/7 Access



Extensive Analysis, Monitoring and Diagnostic Tools



Fully Compatible



Immediate Notifications



Live Capture and Historical Energy Usage



Visualisation and Graphical Representation



Optional 24/7 Support



# 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 after-sales 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.



**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**



**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.



**HAVE COMPLETE  
CONTROL OF YOUR  
SITE**

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



**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](mailto:training@airedale.com) for further details.



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All specifications are subject to change without prior notice | ENG-DRYCOOLER-10-18



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