

Training courses 2016

The UK's leading specialist air conditioning and refrigeration training provider



Get ahead, develop your skills
and knowledge

Professional training and practical instruction
on latest technology products from the
UK's leading specialist air conditioning and
refrigeration training provider

citb
Approved Centre

CPD
CIBSE

Book online now:
www.airedale.com/training

Group bookings /
multiple course
discounts
available

Why invest in training?

The air conditioning and refrigeration (AC-R) industry is technologically fast-moving, highly legislated and environmentally challenging - accelerating demand for highly skilled engineers.

By investing in dedicated training, you will develop the specialist knowledge and practical skills that will enable you to install and maintain cutting edge technologies; advance your industry qualifications; improve the efficiency of your customers' AC-R systems and be regulation compliant.

As an employer, the investment you make in your engineers' training will pay dividends in raising the industry standards of your engineers and grow your company's reputation and expertise in the field.

Why choose Airedale?

Founded in 1974, Airedale is the UK number one manufacturer of precision air conditioning and IT cooling systems, chillers and air handling units. As an industry leader, we are at the forefront of international advances in AC-R technology.

A CITB Construction Skills approved training centre, Airedale provides the ideal combination of classroom learning and practical training:

- **Innovative, latest technology products**
- **Theoretical and hands-on courses**
- **Courses delivered by skilled engineer trainers**
- **Learning-friendly environment**
- **Industry-recognised qualifications**



How you will benefit?

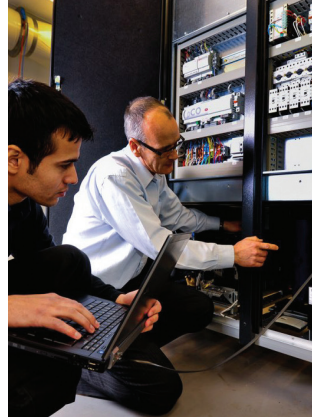
- **New starters / young apprentices:** Learn the fundamentals of AC-R and how to install, commission and maintain next generation air conditioning systems
- **Field engineers:** Develop specialist service skills, fault finding and leak detection
- **Experienced engineers:** Widen your knowledge in the AC-R sector
- **Employers:** Increase the return on your investment through value-for-money training and reduced engineer time off-road



Get ahead using the latest technology

Develop your product and service competence by training on the latest technologies. These include innovations in refrigerants, EC fans, inverter driven compressors, controls and free-cooling technology, all on fully operational units in our three workshop areas:

- **Air conditioning area:** Dedicated training rigs including the very latest in air flow monitoring and water balancing
- **Electrical area:** Perfect for acquiring all the necessary practical testing and fault-finding skills
- **Brazing area:** Equipped with dedicated brazing assemblies



Your course instructors

Training is delivered by fully qualified Airedale instructors and carefully tailored to the 'mix' of personnel on the course. All instructors are highly skilled engineers with a broad range of engineering, refrigeration, installation and servicing knowledge. All courses are constantly appraised and continually improved.

Comprehensive manuals are provided on all courses and include course notes, detailed charts, formulae, table and relevant exercise work.

Tailored content and Continuing Professional Development (CPD)

Airedale is also CIBSE accredited to deliver CPD to contractors, building service and consulting engineers interested in deepening their knowledge of HVAC technologies and data centre applications.

CPD subjects available include data centre cooling and aisle containment, low global warming potential (GWP) refrigerants, free-cooling chiller technology and energy efficiency design, measurement and optimisation.

Course content, dates and venues are flexible – please enquire for details.



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Air conditioning & refrigeration courses 2016

MODULE 1. BASIC REFRIGERATION & AIR CONDITIONING

Ideal for:

Those new to the industry or working in the facility maintenance industry.

Duration: 2 days
09.00 - 15.30

Dates:

February 1-2
April 4-5
June 20-21
August 8-9
November 7-8

Content:

- Air conditioning (AC) equipment and human comfort
- How an efficient AC system benefits the environment
- Heat gains and losses
- AC-R fundamentals including vapour compression cycle
- Modern refrigerants
- Basic knowledge of psychrometrics
- Analysis of an AC-R circuit using gauges and thermometers
- Introduction to pressure/enthalpy

Price: £350 (excl VAT)

Includes tuition, materials, lunch & refreshments

MODULE 2. AIR CONDITIONING INSTALLATION, COMMISSIONING & MAINTENANCE

Ideal for:

Ideal for engineers entering the installation and commissioning sectors, as well as engineers wishing to build on their existing knowledge of AC-R systems gained in Module 1.

Duration: 3 days
09.00 - 15.30

Dates:

February 3-5
April 6-8
June 22-24
August 10-12
November 9-11

Content:

- Basic fundamentals of commissioning AC systems
- Tools and equipment needed for the testing of air and water flow, temperature and electrical components
- Sound brazing practices
- Health & Safety aspects of working with various gases
- Safely carrying out pressure testing and evacuation
- Reclaim and charge refrigerants
- Installation of AC systems
- Pipe sizing for refrigeration and water systems
- Duct Sizing
- Commissioning of air, water and refrigeration service and maintenance
- Fault finding

Price: £500 (excl VAT)

Includes tuition, materials, lunch & refreshments

MODULE 3. DESIGN PRINCIPLES

Ideal for:

Installation/maintenance engineers and potential design/project engineers or those wishing to build on Modules 1 and 2

Duration: 3 days
09.00 - 15.30

Dates:

April 12-14
July 26-28
October 25-27

Content:

- Load calculations
- Design considerations, including ductwork, water and refrigeration pipework, noise and vibration
- Design principles such as equipment selection
- Noise and its implications
- The impact design and equipment selection has on the future efficiency of a system

Price: £500 (excl VAT)

Includes tuition, materials, lunch & refreshments

See overleaf for regulatory industry courses ►►

10-Day Modular AIR CONDITIONING AND REFRIGERATION TECHNOLOGY COURSE

Ideal for:

Engineers new to the industry or from facilities backgrounds, new recruits and apprentices.

Duration: 10 days

Dates:

March 7-18
November 14-25

Content:

- An in-depth introduction to air conditioning and refrigeration equipment
- Installation & Commissioning of refrigeration and chilled water-based systems, including air balancing
- The necessary training to achieve CITB accreditation in Refrigerant Handling (F-Gas) and Essential Electrics, legal requirements for anyone who is to work on air conditioning and refrigeration equipment.
- Pipework & Brazing: working with different copper line diameters and brazing material alloys

25% SAVING

Price: £1500 (excl VAT)

Includes tuition, materials, lunch & refreshments

Regulatory industry courses 2016

ConstructionSkills F-GAS J11 CATEGORY 1

Ideal for:

Engineers carrying out leak testing, refrigerant recovery, installation or S&M on systems containing over 3kg of refrigerant.

Duration: 3 days
09.00 - 15.30

Dates:

January 26-28
March 22-24
May 24-26
July 5-7
August 16-18
October 11-13
December 13-15

Content:

- Current legislation and environmental concerns
- Causes and effects of ozone depletion and global warming
- Reclaim and recycling of refrigerants
- Key commissioning techniques leading to a more efficient energy cycle
- Pipework and brazing skills
- Pressure enthalpy diagrams and the vapour compression cycle
- Pressure testing and evacuation
- Changing and reclaiming refrigerants

This course gives you mandatory F-Gas certification for a period of five years as required by EC Regulation 517/2014

Price: £500 (excl VAT)

Includes tuition, materials, lunch & refreshments

ConstructionSkills F-GAS J11 CATEGORY 1 REFRESHER

Ideal for:

A one-day reassessment course for engineers who hold F-Gas certification.

Duration: 1 day
09.00 - 15.30

Dates:

February 16, April 19, June 1,
July 12, October 4,
November 2, December 6

Content:

- One day reassessment course providing updates on changes in regulations and practical assessments for holders of F-Gas certification as outlined in EU Regulation 517/2014.

Price: £250 (excl VAT)

Includes tuition, materials, lunch & refreshments

One-day pipework & brazing courses also available.
Price £150 + VAT. Please email training@airedale.com for dates

ConstructionSkills **ESSENTIAL & REFRIGERATION ELECTRICS**

Ideal for:

Those working in the AC-R industry who do not possess a formal electrical qualification required to attain a skillcard.

Duration: 3 days
09.00 - 15.30

Dates:

February 9-11
June 7-9
October 18-20

Content:

- Basic electrical theory including electrical units and their measurement
- Practical wiring skills associated with control and power wiring
- Power supplies use and application
- Instrumentation types and use
- Safe methods of fault-finding on electrical control systems
- Single and three phase motors, their operation and methods
- Control devices and how and where they are used
- The need to achieve maximum energy efficiency

Price: £500 (excl VAT)

Includes tuition, materials, lunch & refreshments

ConstructionSkills **ESSENTIAL & REFRIGERATION ELECTRICS REFRESHER**

Ideal for:

A one-day reassessment course for holders of the essential electrics and basic refrigeration electrics certification.

Duration: 1 day
09.00 - 15.30

Dates:

February 17, April 20, June 2
October 5, December 7

Content:

- Update on changes in regulations and practical assessments

Price: £250 (excl VAT)

Includes tuition, materials, lunch & refreshments

Group bookings/multiple course discounts available

How to book:



Call our Training School enquiry desk on: **+44 (0) 113 2387853**



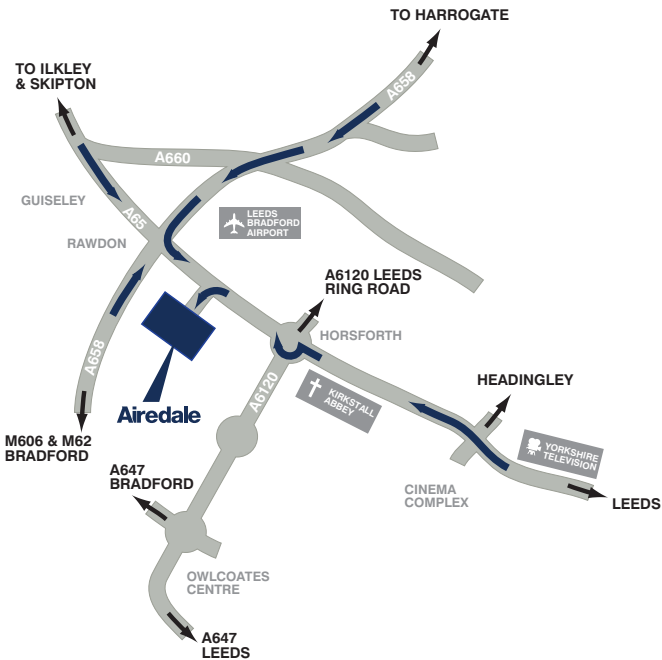
Email: **training@airedale.com**



Go to **www.airedale.com/training** to complete and submit an enquiry / booking form

The following map and directions can be downloaded from the Contact Us page at **www.airedale.com**

Free parking is available on site



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Approved Centre



A **MODINE** Company

All specifications are subject to change without prior notice
ENG-TRNG-8pA5-10/15