

**AIREDALE**

air conditioning for every environment

# Training courses 2012

Airedale Training School, Leeds



Get ahead, develop your skills  
and knowledge

Professional training and practical  
instruction on latest technology products  
in the UK's premier air conditioning and  
refrigeration training facility



Book online now:  
[www.airedale.com/training](http://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 Training School

Airedale Training School is a ConstructionSkills accredited centre, custom-built to offer you the ideal combination of classroom learning and practical training on state-of-the-art products, providing you with the best possible environment in which to learn:

- **Purpose-built, modern facility**
- **Innovative, latest technology products**
- **Theoretical and hands-on courses**
- **High-tech, fully operational workshops**
- **Learning-friendly environment**
- **Latest conferencing aids**
- **Industry-recognised qualifications**



## How you will benefit

- **New starters / young apprentices:** Learn 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 R410A refrigerants, EC fans, inverter driven compressors, controls and free-cooling technology, all on fully operational units in our three workshops:

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



## Your course instructors

Training is carefully tailored to the 'mix' of personnel on each 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.



## Train with an industry leader

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

Courses are delivered alongside manufacturing, controls and state-of-the-art test facilities at our 25,000m<sup>2</sup> head office.

Airedale has on-going working relationships with local universities and colleges throughout the UK, involving Airedale in a variety of research programmes which feed back into training schemes and course delivery.



**Book online now: [www.airedale.com/training](http://www.airedale.com/training)**

# Air conditioning & refrigeration courses 2012

## MODULE 1. BASIC REFRIGERATION & AIR CONDITIONING

### Ideal for:

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

### Duration:

2 days  
Day 1: 08.45 - 17.00  
Day 2: 08.45 - 16.00

### Dates:

April 11-12  
August 6-7  
November 5-6

### 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 psychometrics
- Analysis of an AC-R circuit using gauges and thermometers

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**Price: £350 (excl VAT)**

Includes tuition, materials, lunch & refreshments

## MODULE 2. AIR CONDITIONING INSTALLATION, COMMISSIONING & MAINTENANCE

### Ideal for:

Installation and commissioning engineers as well as engineers wishing to build on their existing knowledge of AC-R systems gained in Module 1.

### Duration:

3 days  
Day 1, 2 & 3: 08.45 – 16.30

### Dates:

April 17-19  
August 14-16  
November 13-15

### 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

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**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  
Day 1 & 2: 08.45 – 15.30  
Day 3: 08.45 – 16.15

### Dates:

February 20-22  
October 16-18

### 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 2011 ►►

**Venue for all courses: Airedale Training School, Leeds, UK**

“An engaging and challenging series of courses which leave me very well equipped to provide air conditioning designs with confidence.”

**Design mechanical engineer,  
Babcock Marine**

**Course attended:  
Modules 1 & 3**

“Excellent training environment providing suitable test rigs for learning. Good course content, informative and practical in terms of job role. First class tuition.”

**C3 Power maintenance  
engineer,  
BT**

**Course attended:  
ConstructionSkills F-Gas J11**

“A very good mix of theory and practical in the course with the instructor having a depth of knowledge that is hard to find these days. I feel very confident to operate at the highest standard in our industry.”

**Engineer,  
Government agency**

**Course attended:  
ConstructionSkills F-Gas J11**

# Regulatory industry courses 2012

## ConstructionSkills **F-GAS J11 CATEGORY 1, 2, 3 & 4**

### Ideal for:

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

### Duration:

3 days  
Day 1, 2 & 3: 09.00 – 17.00

### Dates:

February 6-8, March 6-8,  
April 2-4 & 24-26, June 19-21  
July 10-12, August 21-23  
November 20-22

### 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

This course gives you mandatory F-Gas certification for a period of five years as required by EC Regulation 842/2006

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**Price: £500 (excl VAT)**

Includes tuition, materials, lunch & refreshments

## ConstructionSkills **JO4 & JO5 PIPEWORK & BRAZING\***

### Ideal for:

AC-R engineers who carry out installation and assembly work associated with pipework and brazing

### Duration:

2 days  
Day 1 & 2: 09.00 – 16.30

### Dates:

February 7-8, April 26-27  
August 23-24, November 22-23

### Content:

- Working with different copper line diameters and brazing material alloys to produce quality leak-proof joints in commercial and industrial applications
- Current information and legislation on using new refrigerants and jointing methods

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**Price: £350 (excl VAT)**

Includes tuition, materials, lunch & refreshments

**Venue for all courses: Airedale Training School, Leeds, UK**

## 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  
Day 1, 2 & 3: 09.00 – 16.30

**Dates:**  
February 13-15  
May 9-11  
December 4-6

### **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

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**Price: £500 (excl VAT)**

Includes tuition, materials, lunch & refreshments

## **NEW! 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:**  
May 14-25  
October 1-12

### **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

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**25% SAVING**

**Price: £1500 (excl VAT)**

Includes tuition, materials, lunch & refreshments

\* A one day renewal course is available for each of these courses - cost £250 excluding VAT

**Group bookings/multiple course discounts available**

# How to book:



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



Email: **d.a.beckton@airedale.com**

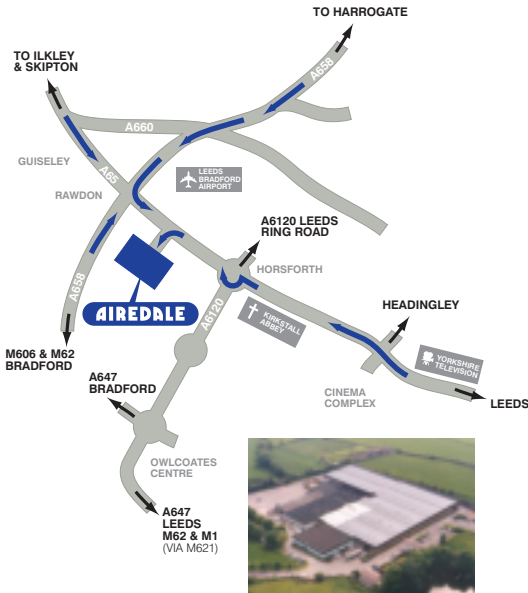


Go to **www.airedale.com/training** to complete and submit an enquiry / booking form

The following location map, together with directions, travel links and details of local accommodation can be downloaded from:

**www.airedale.com** (go to Contact section)

Free parking is available on site



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All specifications are subject to change without prior notice  
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