

A 3 day course covering all aspects of air conditioning / refrigeration servicing, maintenance and fault finding. This course is designed to enable the candidate to Install, Fault Find and Repair units, the course is very practical, enabling the candidate to not only understand the theory and safety related aspects, but also to be able to do the job. The candidate will get 'hands on' when brazing, recovering, vacuuming, recharging, installing and repairing equipment. The areas covered are:

## Health and Safety

- Particular dangers of refrigerants, toxicity, accumulation of gases, frostbite/freezer burn
- Discharging refrigerants, requirements of Environmental Protection Act
- Bacteriological hazards and the elimination of conditions, favourable to the growth of organisms, Legionella and the danger to personnel
- Personal Protective Equipment.

## Specialist Equipment

- Use of charging and evacuating equipment
- Refrigerant leak test equipment and usage. Manual, chemical, gas and electronic methods
- Tooling requirements.

## Materials

- Properties and applications of commonly used refrigerants
- Properties and types of lubricants used with refrigerants
- Insulating materials and application methods
- Refrigeration theory
- Latent and sensible heat, vapour point
- Vapour compression cycle
- Heat transfer factors (related to condensers, evaporators and secondary heat exchangers) and simple calculations
- Comfort conditions.

## Air Conditioning Systems

- Air handling units, filtration, changeover methods
- Secondary refrigerant systems
- Heat pumps
- Fans and ducting
- Settings
- Sizing of rooms.

## Basic Compression Refrigeration Systems

- Basic compression refrigeration system components
- Compressors
- Condensers
- Expansion devices
- Evaporators
- Liquid line components
- Suction line components
- Defrost systems
- Commissioning and testing
- Basic checks
- Power supplies, oil levels, safety cut outs, defrost, controls (where applicable)
- Air condition systems. Check damper and grill settings
- Pressure testing as per makers instructions.
- Evacuating methods using high vacuum pumps
- Charging systems. Pre-charge purging methods. (After circuit has been opened).

COST: £450 (+ VAT) Per Candidate

GROUP RATE: £850.00 (+ VAT)

PREREQUISITE: None

DURATION: 3 Days

BOOKINGS: Telephone 01246 810444 or Email [enquiries@techniquetraining.co.uk](mailto:enquiries@techniquetraining.co.uk)