



Quality Products AHU Repair,
Refurbishment and Replacement



We are engineers specialising in the repair, refurbishment and replacement of ventilation systems.

We have considerable experience in solving ventilation problems. These might include too hot, too cold, too much air, too little air, noise problems, reliability problems, as well as problems with the ventilation equipment itself. We are happy to work with other experts and trades to provide a successful outcome to complex issues in building services.

The main office is based in Ringwood in Hampshire; with engineers also based in Scotland, Newcastle, Shildon, Manchester, Midlands and Dartford. We work throughout the UK on commercial, public and industrial building ventilation systems. Our people have a wide range of skills including electrical, mechanical, controls, commissioning.

We manage all works to ensure work is completed on time, on budget and to the customers satisfaction. All works are performed by in-house AHS Specialist Services engineers.

Energy efficient AHU and HVAC repair and maintenance



A complete range of HVAC services, from preventative maintenance and operations, to upgrades and repair, AHS Specialist Services deliver on your heating, ventilation, and air conditioning service needs, reducing unplanned downtime, increasing asset life and reliability and ensuring productive environments.

AHS Specialist Services design, build, install and maintain a wide range of low energy, highly efficient AHU systems, this allows us to deliver the best, tailored solution for you and your chosen application.

At AHS Specialist Services we create healthier, more productive environments that deliver energy savings, reduce costs and provide a sustainable solution. Our experienced installation and support teams are specialists in a wide range of ventilation equipment that you find in and associated with the air handling units.

AHS Specialist Services offer a variety of tailored planned maintenance programs and strategies, developed for individual facility needs, which deliver smooth, uninterrupted operations, reduce operational costs, prevent unexpected downtime and increase efficiency.

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HVAC System Energy Upgrades and Refurbishment

Our team of experts carry out initial technical evaluation to enable you to make an informed decision on your HVAC plant.

The reports include:

- Comparison of refurbishment and replacement of AHU's and other equipment to include capital cost, carbon, energy saving and running costs.
- Energy surveys and reports on complete AHU systems, including leisure centres, retail stores, cinema's, office blocks, universities just to name a few.
- High specification site reports such as hospital surgical and ward standards, pharmaceutical and clean room applications.

AHS Specialist Services can provide a spreadsheet illustration of the energy saving with the introduction of 'plug' fans into AHU's.

Ageing ventilation equipment can often be refurbished, which can extend the life of air handling units and other components by 15 years. Immediate repairs can be undertaken to ensure ventilation to critical or sensitive areas is maintained. AHS Specialist Services can advise the most economical and beneficial solution whether to refurbish or replace, taking into account the condition of the existing equipment and complexity of replacement. It can be the case that partial replacement plus refurbishment is the recommended solution.

The case for refurbishment:

- Cost – there is a major saving in capital outlay, along with significant savings in future running cost due the much more efficient components installed.
- Time – reduced down time compared with complete replacement.
- Energy saving – reduced electrical consumption with lower carbon emissions.
- Future proofing - incorporate the latest innovations.
- Lifespan – extended by 10 to 15 years.
- Installation – no need for craneage or major plant movements.

Plant space is retained, whereas new equipment is invariably larger.

Supply and Flat pack Installation of AHU's

AHS Specialist Services design, build, install and maintain a wide range of low energy, highly efficient AHU systems; this allows us to deliver the best, tailored solution for you and your chosen application.

AHS Specialist Services are installers of air handling units manufactured by AHS Ltd and other makes as and when required. This service is available throughout the UK. Flat pack installation of units is a valuable option when there is inadequate room to position a complete or sectional AHU into a site location, particularly in existing plant rooms. Not only can the AHU case be flat packed, but also the major components, including heating and cooling coils, large fans, plate heat exchangers and thermal wheels.

We can provide a complete installation package including disconnection of ductwork, removal of old plant, de-gassing of DX equipment, electrical isolation, scrap removal. Once the new AHU or fan equipment is installed, AHS Specialist Services will re-connect all the above services and commission the units. To minimise down time, the works can be done at night or over a weekend if necessary. AHS air handling units are designed and built at the factory in Shildon, County Durham. The design and construction is to the highest standards. All units are of bespoke design to meet the customers specific requirements.

Factory visits are welcome both to Shildon and Ringwood, please contact us to arrange.

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Kitchen Ventilation and Heat Recovery Units

At AHS Specialist Services we create healthier, more productive kitchen environments that deliver energy savings, reduce costs and provide a sustainable solution. Our experienced installation and support teams are specialists in a wide range of ventilation, extractor fan and canopy installation, make-up air units, maintenance, and odour control systems.

New kitchen canopies are designed to accommodate the cooking equipment and the kitchen layout, and can incorporate lighting and fire suppression equipment. The canopy can be located adjacent to a wall, or island type, and must have sufficient overhang and height to ensure cooking fumes are contained. The canopies are manufactured from grade 304 stainless steel, with all welds ground and polished.

Effective kitchen ventilation systems require balanced supply and extract airflow, with make-up air being an important component of the system. Failure to get this right will cause problems, such as cooking odours, fumes or draughts entering into the restaurant. Other factors include filtration of the extract effluent.

AHS Specialist Services are able to supply and install complete kitchen ventilation systems. In addition, we are able to solve kitchen ventilation problems. These can be insufficient supply or extract airflow, odour problems, and noise problems. All works are done in accordance with specification DW/172.

Baffle filters in the canopy are easy to clean and offer good protection against the spread of fire. Further filtration may be necessary if the exhaust outlet odours are likely to affect nearby properties. These can include electrostatic, ultra-violet and carbon filters. AHS Specialist Services can advise on this.

The make-up air should be provided by an air handling unit and will need to heat the supply air in winter. The correct airflow distribution is essential in the kitchen to avoid canopy overspill or cooling of the cooked food. The extract fan must be correctly selected to meet the airflow and pressure requirements, and also be suitable for high temperature polluted air.

This type of fan is often unavoidably noisy, and may require an acoustic enclosure and cleanable silencers to avoid environmental problems. There are regulations for fire prevention and gas cooking interlock which must be complied with at design stage.

A control system designed for kitchen ventilation systems in accordance with BS 6173/2001 is necessary. Kitchens with gas fired appliances must have the mechanical ventilation interlocked with the gas supply. AHS Specialist Services can supply a gas interlock panel to be located in the kitchen, with an emergency stop button, plus start, stop, reset switches and fault indication. A matching quick response gas valve can be supplied.

AHS Specialist Services can advise on all these details to ensure a successful installation.





HVAC Emergency Repairs and Maintenance

Our dedicated team of reactive support experts can help reduce unplanned downtime, increase asset life and reliability, ensuring productive environments are a major part of our planned maintenance and predictive and diagnostic services.

Ventilation systems are an essential part of the fabric of a building and when they go wrong, an urgent solution is required. This particularly applies to restaurant kitchen extract systems, retail units and to high occupancy office buildings. AHS Specialist Services have the knowledge, the manpower, the site skills, and access to components to offer a rapid repair service throughout the UK. Repair or replacement of fans, leaking heating or cooling coils, frost damaged heating coils, gas burner replacement. AHS Specialist Services can repair coils of all types, often in-situ and large replacement coils can be assembled on site.

Routine Maintenance

AHS Specialist Services provide regular maintenance service for ventilation units.

This includes the following:

- Changing filters plus checking and top-up of inclined manometers.
- Replacement and adjustment of fan drive belts.
- Replacement and adjustment of thermal wheel belts and brushes.
- Check fan bearings, AV mounts, flexible connections.
- Clean and lubricate dampers.
- Inspection for coil or pipework leaks.
- Checking of drain traps and drain trays.
- Clean coil finned blocks.
- Gas burner servicing.
- Package DX servicing.
- Check access doors and panels for air leaks.
- Check door seals and door catches.

Maintenance service contracts can reduce breakdowns and extend equipment life.

Condition and Performance Surveys

Ageing air handling units and ventilation equipment can be expensive to replace, so to make an informed decision about the options, it can be worthwhile to commission AHS Specialist Services to prepare a condition and performance report. This will be a detailed report on the condition, with options and recommendations to repair, refurbish or replace the equipment. If the brief includes investigation of ventilation problems, these will be investigated as part of the report. In addition, airflow and pressure measurements will be taken to compare against original design data, or current requirements.

Ventilation and air conditioning are an essential part of the building fabric, and are covered in legislation by the Building Regulations Part F – Ventilation and Part L – Conservation of Fuel and Power.

There are further standards for particular products, building types and industries which need to be considered.

Beyond the regulations, the reality is that ventilation systems become unfit for purpose for a variety of reasons.

- Area, for example – big increase in room occupancy, the addition of equipment giving off heat, steam, noise, odours etc.
- Water leaking from air handling units. This is a major reason for corrosion and deterioration in air handling units and can be caused by leaking heating and cooling coils, water carry-over from cooling coils, and incorrectly trapped cooling coil drains.
- Flood damage, including moisture surveys with specialist measurement of moisture in AHU panels, and refurbishment of water damaged components.
- Black dust around supply air ceiling grilles is unsightly and a sign of faulty filtration in the air handling unit. This can be caused by low grade filters, air bypassing the filters, filter collapse due to high pressure, or AHU design fault.
- Low airflow can be caused by lack of maintenance, such as stretched fan drive belts, blocked inlet louvres, closed dampers, blocked coils or filters, incorrect inverter settings.
- Too hot, too cold, high or low humidity may be a problem with the controls or incorrectly sized equipment. Draughts are a common problem caused by ventilation systems.

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Pressure Testing and Full Diagnostic Reporting

AHS Specialist Services offer proactive testing and diagnostic reporting solutions, using advanced technology and data to assess equipment condition, compare it to the performance of similar equipment, and make data-driven recommendations on how you can improve equipment performance.

This proven approach finds problems before they happen and uncovers opportunities for improvement that save time and money.

AHS Specialist Services have a wide range of in-house skills including leakage testing of air handling units to EN 1886 and EN 13053. The service also includes airflow measurement and commissioning. Such tests are mandatory in hospitals, laboratories, clean rooms, pharmaceutical buildings and for some manufacturing departments. Pressure tests of up to 1500Pa can be undertaken.

We can also measure for positive or negative air pressure requirements in clean or sterile rooms. AHS Specialist Services also undertake water pressure and flow rate testing in chillers and hot water systems as part of the commissioning process. In all cases a certified report will be issued with the test results.

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Delivering Efficient, Smart and Reliable
Air Handling Unit Refurbishment and
HVAC Solutions.

Commercial and Industrial ventilation,
heating or cooling installation and servicing.
Supported by our dedicated team of experts.

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