



**MANSFIELD POLLARD**  
AIR MANAGEMENT EXPERTS

# AIR HANDLING UNIT REFURBISHMENT



**Specialist AHU Applications**  
by Mansfield Pollard

# WHY REFURBISH?

Refurbishment of existing air handling units is a more cost-effective solution than AHU replacement. We understand that customers want to **MINIMISE DISRUPTION** and downtime as much as possible when dealing with air handling units.

Refurbishment is often **FASTER** than replacement and offers greater flexibility to complete the work. Relatively simple measures can make a big difference in **REDUCING OPERATING COSTS** and provide a rapid and demonstrable return on investment.

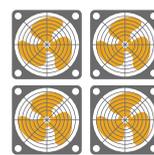
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Clean air is recognised as being important for health, well-being and productivity & we have never been more conscious about the air we breathe...

## ITS NOT ONLY ABOUT **COST EFFICIENCY**

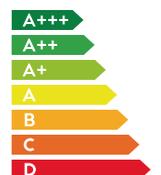


Renowned for our agility and flexibility to quickly adapt to projects big or small, delivering solutions when no-one else can.



Upgrading of critical components and 'engineered in' redundancy ensures uninterrupted operation and maximum unit resilience.

We all continue to strive towards net zero: energy efficiency and sustainability are no longer a preference, it is a necessity.



Comprehensive maintenance solutions not only prevent unit breakdowns but also improve system resilience and improve energy efficiency.

Clean air is recognised as being important for health, well-being and productivity & we have never been more conscious about the air we breathe.



# THE BENEFITS

“ a well executed AHU refurbishment can add 15-20 years working life to equipment.

## ENERGY SAVING



Low energy, high-efficiency fans plus additional upgrades can result in c.40% savings.

## LIFE CYCLE



Extend the life of the existing AHUs with cost effective component enhancements.

## REDUNDANCY



Solutions to provide sufficient airflow in the event of a fan or equipment failure.

## AIR QUALITY



Upgrading filtration systems, replacing and retrofitting components to greatly improve IAQ.

## MAINTENANCE



Additional lifecycle cost savings through reduced ongoing maintenance costs and increased efficiency.

## COMPLIANCE



Improve the units specification to ensure legal compliance and future-proofing.

# ENHANCE AHU PERFORMANCE



## FANS

Potential for single inlet direct drive backward curved 'plug' fans with inverter or EC fan with built in electronic speed control.



## COILS

Heating and cooling coil repair or replacement including pipework and replacement fins. Upgrade of drainage systems as necessary.



## FILTERS & FRAMES

Replacement filter frames and upgraded filters prevent air leakage and improve IAQ. Replacement pressure gauges to monitor usage.



## UNIT CORROSION

Caused by leaking panels / unit profiles - can be treated or removed, and the panels replaced repainted and resealed as necessary.



## DAMPERS

Damper maintenance, repair and, mechanism replacement including actuators fitment if warranted.



## AV MOUNTS

Replacement of AV mounts and flexible connections will be considered when necessary.



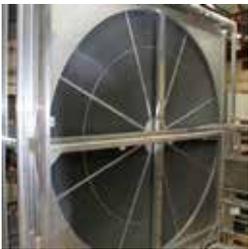
## HUMIDIFIERS

Upgrades / retrofitting of humidification options in addition to servicing options.



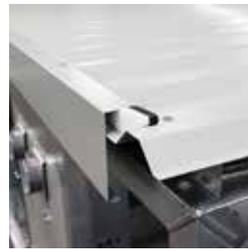
## BEARINGS

Double inlet backward curved fans can be replaced with new bearings to extend their lifespan.



## HEAT RECOVERY

Options for sectional thermal wheel, plate heat exchanger and packaged heat pump / run-around coil upgrades.



## ROOF & ACCESS

New roofs can be manufactured and fitted along with any additional access panel as required. Door furniture updated as required.



## CONTROLS

Full controls assessment to check functionality and potential upgrades to minimise future energy consumption.



## DUCT & PIPES

All pertaining duct, pipework and insulation will be surveyed for quality and potential improvements.

# TRUST THE EXPERTS

## **Increasing the AHU's life expectancy and energy efficiency whilst improving the air quality served to healthcare patients and staff.**

Mansfield Pollard's engineers were chosen to provide a full ventilation refurbishment service for 10 air handling units including HTM 03-01 specification units. Project highlights include retrofit of a heat recovery system via run-around coils, upgrading of all fans to EC, replacement of heating and cooling coils and design and installation of full controls package.



Bradford Teaching Hospitals,  
NHS Foundation Trust.

## **Providing cost effective nationwide refurbishments to improve energy efficiency and reduce ongoing maintenance costs.**

To provide a full refurbishment service across the Telefonica property portfolio in England and Scotland. To improve energy efficiency through fan upgrades to supply and extract, replace cooling coil and retrofit electric heater batteries. Replacement of panels where necessary and install door guards on fan access panels.



Various Locations,  
Telefonica UK Ltd.

## **Providing a time sensitive relocation and upgrade of the Academy's Air Handling Unit during a redevelopment project of the building.**

Full disassemble, relocation and upgrade of air handling units including fans, motors, coil, dampers, filters, and energy control package to increase the Academy's energy efficiency and indoor air quality. These savings were enhanced with the addition of a re-heat coil and re-skinning of internal base panels.



Skipton Academy,  
Moorlands Learning Trust.

# WHY MANSFIELD POLLARD?

## INVESTMENT



### GROWTH STRATEGY

Well defined ambitious 5-year strategic growth plan derived from recent Management Buyout.

### CUTTING EDGE MACHINERY

Over £750,000 investment over the past 12 months providing a 70% increase in capacity.

## TECHNOLOGY



### RESEARCH & DEVELOPMENT

Significant focus on design & development investments to ensure industry leading status.

### AUTOMATION

Significant reduction in factory lead-times & enhancements in competitive edge.

## BUSINESS AGILITY



### VERSATILITY

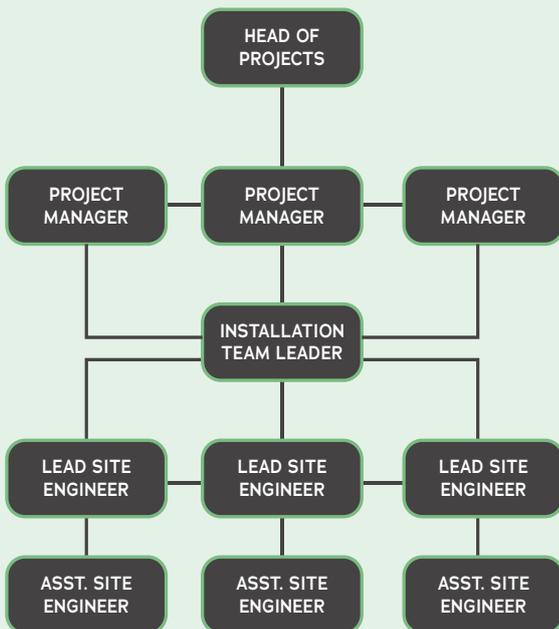
Multiple product lines experts with the capability to switch production line focus when needed.

### DELIVERY & SUPPLY CHAIN

Robust supply chain utilising Tier 1 Partnership approach provides ultimate flexibility.

## FREE AHU REFURBISHMENT SURVEY

Our trained technicians can complete a FREE AHU inspection and provide detailed condition ratings based on the units components, life cycle, hygienic status, and general cleanliness of the system. We will also be able to provide additional recommendations to improve the energy efficiency, maintenance, redundancy measures and compliance of the AHU.



## DEDICATED DELIVERY TEAM



Our project delivery team have a wealth of experience in various different sectors across the HVAC industry including the design, manufacture and installation of air handling units, acoustic solutions and specialist ductwork.

Each project has a designated project manager who works across all departments including technical and site fitting teams. A project programme is issued to customers at the earliest stage to allow accurate planning for all relevant parties involved in the project including external contractors.

# ABOUT US

## QUALITY AS STANDARD

Our management systems consist of a framework that combines all aspects of quality (ISO 9001:2015, environmental management 14001:2015 and occupational health & safety (45001) with the sole purpose to streamline and improve company performance, by establishing consistency throughout the organisation and optimising internal processes and resources, resulting in a positive impact on quality, safety, risk and productivity.



ISO 9001:2015



ISO 14001:2015



ISO 45001:2015



## CAPABILITY & EXPERIENCE

With over 130,000 ft<sup>2</sup> of manufacturing space and an additional 30,000 ft<sup>2</sup> of complementary external storage space, we have the capacity and ability to be ultra-flexible with our operations ensuring industry leading turnaround and reaction times.

“

With over 40 years experience and the manufacture of over 10,000 bespoke air handling units, Mansfield Pollard is recognised as an industry leading solutions provider

## A SUSTAINABLE BUSINESS

In early 2021, Mansfield Pollard officially became a Carbon Negative business by offsetting significantly more CO<sub>2</sub>e than we currently emit with 1000 tonnes of CO<sub>2</sub>e offsetting our emissions of 473 tonnes CO<sub>2</sub>e.

We chose to become part of the solution to climate change not only locally but also in developing countries and as a business we decided to support projects that help de-carbonise electricity grids, improve energy efficiency, reduce deforestation and promote reforestation.



# SUSTAIN PEAK PERFORMANCE

## SERVICING AND MAINTENANCE

Our experienced mobile engineers are here to provide expert advice and a planned, preventative maintenance solution to ensure your AHU maintains optimum efficiency. Our comprehensive maintenance solutions not only prevent unit breakdowns, but also improve system resilience, improve energy efficiency and ensure your unit is providing maximum economic value through optimum performance.



## EXPERT ADVICE & GUIDANCE

You will have access to our experienced air handling unit engineers with a wealth of knowledge to get your air handling system working again with minimal disruption.

Service packages are fully customised to suit individual units tailored to your specific site and application requirements. Panel and bag filter are changed as standard with any other additional works/preventative measures recommended as required. Any urgent remedial works can be scheduled subject to the availability of necessary parts.

## ACCELERATED COMPONENTS

From consumable parts to full component replacement, we understand that AHU downtime is extremely disruptive in any workplace and can often have an associated economic impact. Mansfield Pollard's dedicated team offer a full and fast turnaround spares service for both MP and other manufacturers units.

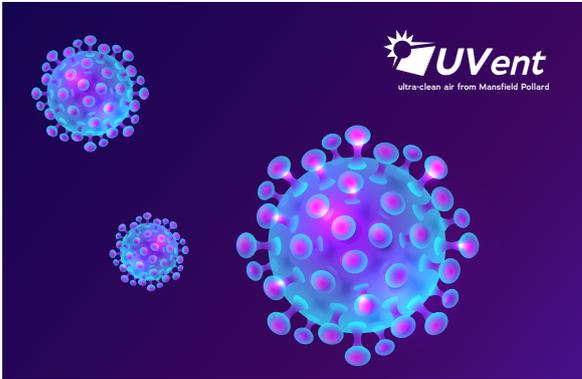


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**Our standard service plans are for one year with options for extended maintenance agreements. Our plans include two scheduled visits per annum.**

air handling unit refurbishment from Mansfield Pollard

# ALWAYS ADDING VALUE



## ULTRAVIOLET STERILISATION AIR PURIFICATION

Guaranteed to destroy over 99% of all airborne viruses and bacteria, UVent products are able to deliver significant efficiency gains and provide an exceptional level of biosecurity in the workplace by directly impacting the health, productivity and well-being of both customers and staff.

Trusted by the NHS the multi award-winning systems are spearheading the advancements in air sterilisation technology by removing the dangerous pathogens that constantly surround us. Rigorously independently tested, the units are designed and manufactured in the UK and are available in three different models. With a sterilisation zone of up to 80m<sup>3</sup>, the fully portable mobile unit can easily be moved to sterilise any specific space or room and the ceiling jet model which is equally as powerful is fixed and sized to replace a single standard ceiling tile. A duct mounted version is also available which can be retrofitted into any ventilation system.

## WE GIVE YOU XTRA



### Procure With Confidence:

Indoor Air Quality (IAQ) affects the health, comfort, and well-being of building occupants.

Air quality testing and inspections are available with remote access enabling real-time qualitative data to measure, create and validate every air management solution for total peace of mind.

## MUCH MORE THAN SIMPLY AIR HANDLING

In addition to being one of the UK's leading air management experts, Mansfield Pollard are also recognised as providers of specialist ductwork, energy controls and acoustic solutions.



### Specialist ductwork

We are a specialist manufacturer and installer of ductwork systems (including fire rated). Our in-house team design any dimension and type of ductwork for any environment.



### Energy Controls

Designed to maximise productivity and minimise carbon emissions, all our controls solutions are designed and manufactured in-house at our specialist facility.



### Acoustics

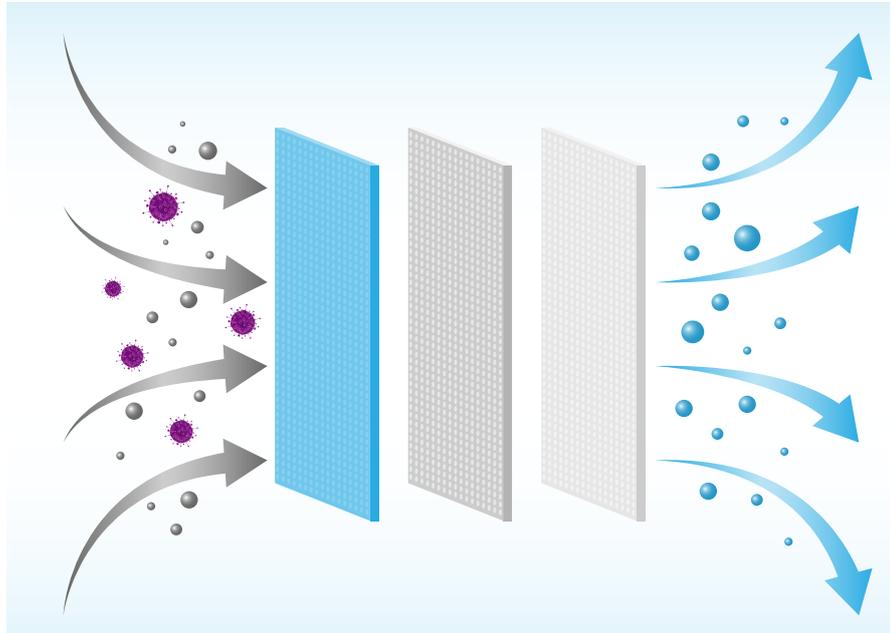
As a market leading specialist in noise control our product range includes acoustic containers and enclosures, acoustic louvres, attenuators and gas exhaust

# INDOOR AIR QUALITY

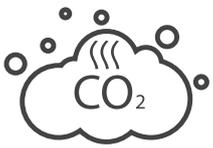
## IAQ DRIVEN GUARANTEE

We spend on average 22 hours a day indoors which equates to 90% of our lives. It is imperative that the air we breath is as clean as possible.

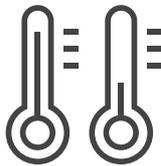
Levels of CO<sub>2</sub>, temperature and humidity, particulate matter (PM) and Volatile Organic Compounds (VOCs) have a huge impact on human comfort and productivity and human health and well-being. Any ventilation solution should improve some if not all of these natural key performance indicators.



### Carbon Dioxide



### Temperature



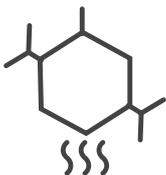
### Particulate Matter



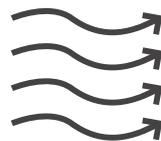
### Relative Humidity



### VOC's

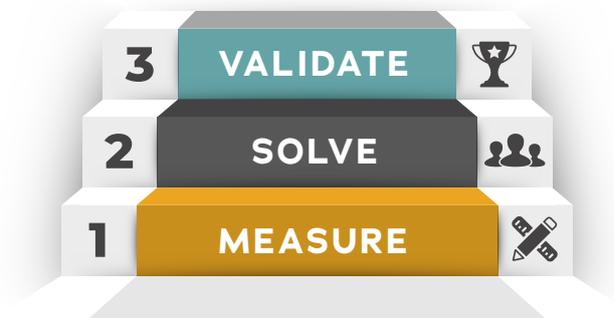


### Air Quantity



## OUR PROMISE TO YOU: SOLUTION VALIDATION

As a specialist ventilation solutions provider we encourage customers to demand data driven validation of project results through the use of an industrial IAQ monitor. Our unique customer focused promise is a three step process designed to provide complete peace of mind.



Firstly we can actively evaluate conditions and provide customers valuable insight of their IAQ. Secondly design a solution to address the issues before finally monitoring its effectiveness on IAQ.

The background of the entire page is a detailed, isometric technical drawing of an air handling unit (AHU). The drawing is rendered in a light grey color against a dark grey background. It shows various components such as ductwork, coils, filters, and structural frames, all interconnected in a complex, three-dimensional layout. The perspective is from an elevated angle, looking down and across the unit.

AIR HANDLING UNIT  
**REFURBISHMENT**

 **MANSFIELD POLLARD**  
AIR MANAGEMENT EXPERTS

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