

AIR HANDLING UNIT REFURBISHMENT



Specialist AHU Applications by Mansfield Pollard

WHY REFURBISH?

The refurbishment cost of existing air handling units is typically 40-50% of the cost of new equipment. We also 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 also 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

COST EFFICIENCY



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

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









Upgrading of critical components and 'engineered in' redundancy ensures **uninterrupted operation** and

uninterrupted operation and maximum unit resilience



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THE BENEFITS



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

Cost Efficiency



Refurbishing an AHU typically provides a capital cost saving of 35-70% against new.

Energy Saving



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

Sustainability



Greatly reduce carbon emissions & contribute to corporate social responsibility goals

Noise Reduction



Technologically superior acoustic materials & AV products to reduce breakout noise

Accelerated ROI



Streamlined project process delivers solutions in less than half the time of a new unit

Better I.A.Q.



Upgrading filtration systems, replacement and retrofitting of components greatly improves IAQ.

Simple Logistics



Minimal disruption and downtime as unit is in-situ & ability to work flexibly and conveniently

Compliance



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

Increase Control



Using the latest energy control technology to provide the ultimate in connectivity

WHY MANSFIELD POLLARD?



INVESTMENT

Growth strategy

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

Cutting Edge Machinery

In excess of £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

Experts in multiple product lines with capability to switch production line focus when needed

Delivery & Supply Chain

Robust supply chain utilizing Tier 1 Partnership approach provides ultimate flexibility

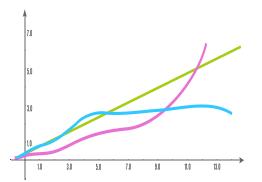


DEDICATED DELIVERY TEAM

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.

R.O.I. DATA



ACTUAL energy savings calculated to provide detailed return on investment figures

UTILISING THE LATEST TECHNOLOGIES



Adding real value by utilising the latest technologies available in the marketplace. Including industry leading ultraviolet air sterilisation and the use of indoor air quality monitoring to validate ventilation solutions.

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.









CAPABILITY & EXPERIENCE

With over 130,000 ft² of manufacturing space and an additional 30,000 ft² 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_2e than we currently emit with 1000 tonnes of CO_2e offsetting our emissions of 473 tonnes CO_2e .

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.

ENHANCE AHU PERFORMANCE



UNIT CORROSION

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



ROOF & ACCESS

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



FILTERS & FRAMES

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



FANS

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



AV MOUNTS

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



BEARINGS

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



HUMIDIFIERS

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



COILS

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



HEAT RECOVERY

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



DAMPERS

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



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



Location

Client

Contract Value

Eccleshill Community Hospital, Bradford Bradford Teaching Hospitals NHS Foundation Trust.

£72K

Project Summary

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 including retro-fitment 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.



Location

Client

Contract Value

Various UK

Telefonica UK Ltd

£93K

Project Summary

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 new cooling coil and retrofit a new electric heater battery. Replacement of panels where necessary and install door guards on fan access panels.



Location

Client

Contract Value

Skipton Academy

Moorlands Learning Trust Academy £26K

Project Summary

Full disassemble, relocation and upgrade of air handling units including fans, motors, coil, dampers, filters and energy controls package. Retrofitting of re-heat coil and re-skinning of internal base panels.

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

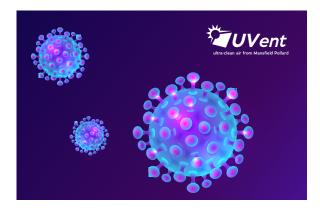
From consumable parts to full component replacement, we understand that AHU downtime is extremely disruptive in any workplace and can often have an associated economic impact. Mansfield Pollard's dedicated team offer a full and fast turnaround spares service for both MP and other manufacturers units.





Our standard service plans are for two years and include two scheduled visits per annum. Extended warranties are available

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 $80 \, \mathrm{m}^3$, 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



K-Factor:

Free air volume and pressure recordings using fan K factor.

Discount:

5% discount on all recommended remedial works undertaken.

IAQ Monitoring:

Free IAQ monitor plus access to information dashboard for one month.

Extended Warranty Pricing Structure:

Based on 1 year minimum maintenance agreement with options for 3/5 fixed price maintenance agreements.

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 silencers.

PROJECT DELIVERY TEAM

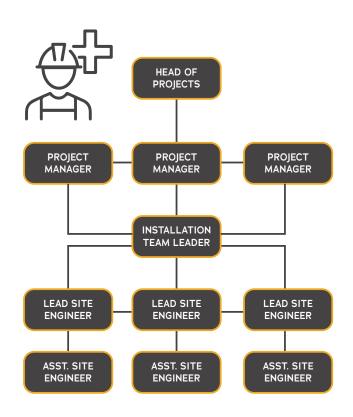
WHERE CAPABILITY MEETS **HVAC EXPERIENCE**

HVAC EXPERTS:

Our project delivery team at Mansfield Pollard, based at our HQ in Bradford, have a wealth of experience in various different sectors across the HVAC industry including air handling units, acoustics and kitchen ventilation.

DEDICATED PROJECT MANAGEMENT:

Each project will have a designated project manager assigned by our head of projects once an order has been received. Working closely with our technical department, our project managers will conduct site surveys at order stage to finalise technical component selections before manufacture and to allow full RAMS to be submitted way in advance to allow client approval.



OUR SECRET WEAPON

A detailed project programme is issued at the earliest stage to allow accurate planning for all relevant parties involved in the project including external contractors.



Upon completion of our initial survey, our project managers conduct an internal handover review meeting involving all necessary departments including design, technical and procurement.

Our project managers work closely with our procurement team to ensure we have an efficient supply chain in place for components that are required. We currently have a minimum of three preferred suppliers for fans amongst other various components. We have two factories allowing us complete capabilities to manufacture bespoke metal work to suit the intricacies of the project specification.

INDOOR AIR

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 CO₂, 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.

C-therm PACKAGED HEAT PUMP SERIES

MANSFIELD POLLARD

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