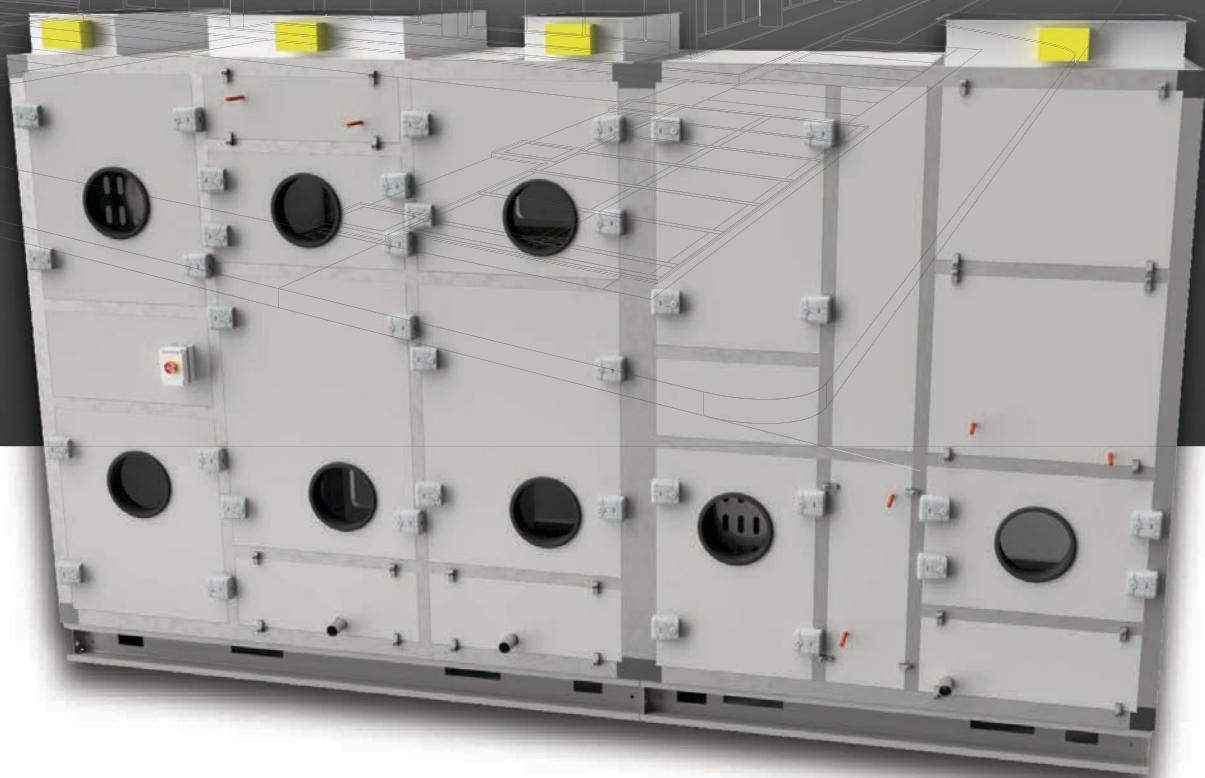




MANSFIELD POLLARD
AIR MANAGEMENT EXPERTS

HTM 03-01 CABINET

AIR HANDLING UNIT



specialist AHU applications
HOSPITAL & HEALTHCARE



Clean & Controlled
Environments



Hospital &
Healthcare



Extreme
Environments

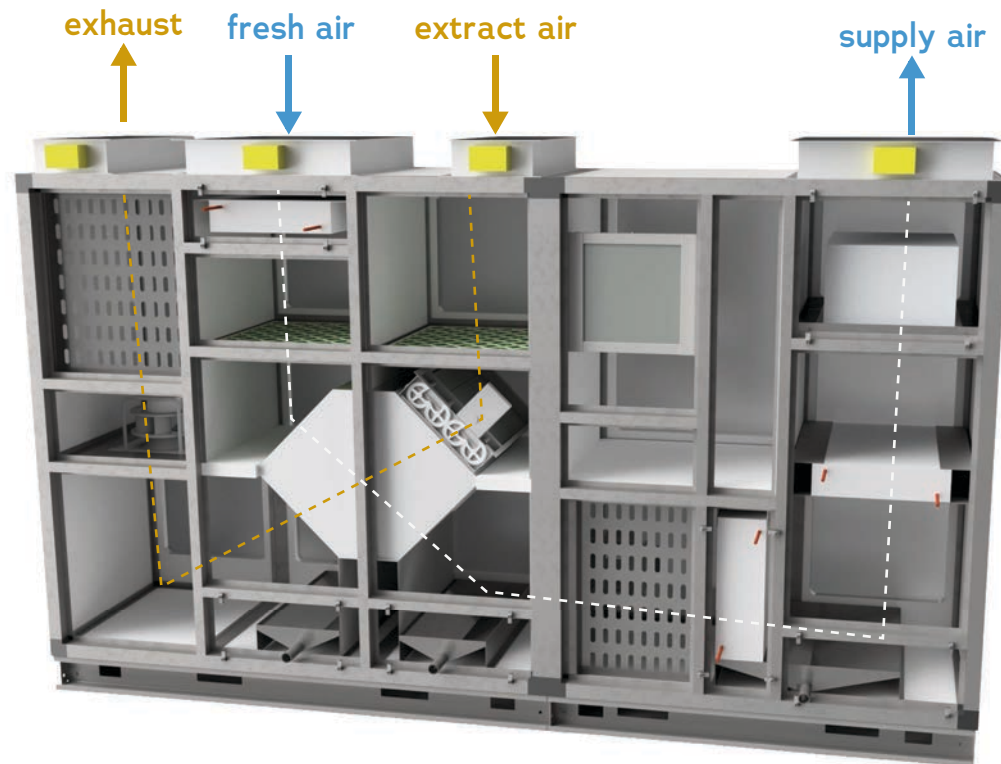


Process
Ventilation



Comfort Air
Management

THE HTM CABINET: COMPACT HTM03-01 AHU



CLINICAL PERFORMANCE IN A COMPACT FORMAT

Developed for healthcare environments governed by HTM 03-01, this cabinet format air handling unit is engineered for projects where space is restricted and performance is non-negotiable.

Designed and manufactured in the UK by Mansfield Pollard's specialist clinical ventilation team, it provides a precise and HTM-aligned solution for plantrooms, refurbishments and critical care settings. With airflow capacities up to 2.5 m³/s and cabinet widths starting at just 712 mm, the HTM

unit airflow



up to 2.5m³/s

unit width



from 712mm

03-01 Cabinet Unit has been designed for installation in areas with restricted access or limited plantroom space.

It allows consultants and contractors to specify a clinical AHU in locations where traditional modular systems are not feasible, while maintaining full filtration integrity, service access and mechanical performance.

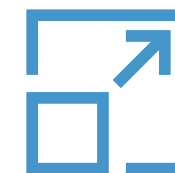
it's not only about **SAVING SPACE....**

HTM 03-01 Aligned by Design



Engineered in line with HTM 03-01 Part A, with certified mechanical performance and hygienic construction

Flexible Project Integration



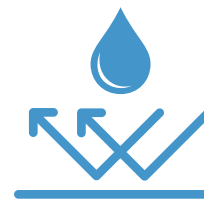
Factory-built and tested unit simplifies installation across new build, upgrade and modular projects.

Accelerated Delivery, Faster Return



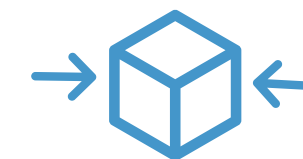
Factory assembly, short lead times & reduced install labour support quicker programmes and lower total capital risk.

Environment Specific Manufacture



Designed for flexible placement in constrained healthcare plant areas (internal or external)

Easy Access & Maintenance



Quick-change fans and simplified access support faster servicing and protect clinical uptime

Compact Unit Footprint



Designed for delivery through standard healthcare doorways, subject to unit configuration and site access

Ultra Energy Efficient



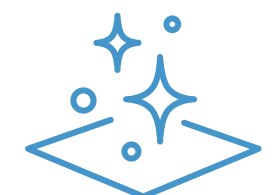
Low SFP, optimised fan selection and plate heat recovery reduce carbon and operating cost.

Smart, Connected Controls



Factory-integrated systems support BMS integration, real-time monitoring and remote diagnostics.

Hygienic Construction



Smooth internal surfaces and cleanable construction support hygiene-critical environments

HTM 03-01 CABINET

SPECIALIST **HEALTHCARE** AHU
by Mansfield Pollard

COMPACT, COMPLIANT & CARBON SAVING

THE HTM CABINET: COMPACT HTM03-01 AHU

CONTROLS:

Plug-and-play controls for quick start-up and unit operation. HMI display interface, with optional BACnet/IP Ethernet connectivity for remote monitoring via BMS

FILTERS:

50mm depth ISO ePM10 50% panel pre-filters and return air filters.

300mm depth ISO ePM1 60% compact final filters

HEAT EXCHANGER:

Counter-flow plate heat exchanger with thermal bypass damper, designed in line with HTM 03-01 energy-recovery guidance.

CASING & INSULATION:

Tray in Tray panels with sandwiched insulation to "Euroclass A" fire rating
Smooth non-corrodible and washable internal surface

Thermal transmittance Class T2
Thermal bridge TB2
Deflection Class D2
Airtightness Class L2

CONDENSATE TRAYS

Corrosion-resistant condensate tray with 1:20 fall to the drain outlet to prevent pooling, with removable/withdrawable tray option for cleaning access

UNIT BASE:

150mm deep, robust, galvanised steel base frame, complete with lifting positions for transportation and handling purposes

DAMPERS:

Motorised isolation dampers
Class 3 galvanised steel
single skin opposed interlocking aluminium blades

FANS:

Direct driven EC external rotor motor with an integrated controller, motor class IE5 equivalent.

Plug and socket for quick changeover

Supply fan positioned so cooling coil is under positive pressure.

COILS:

Heating coils with seamless copper tube have cleanable fins made from copper with a minimum fin spacing of 2.5mm.

Fog coils are bare tube without fins

Cooling coils with seamless copper tube have easily cleanable smooth fins made from aluminium coated vinyl with a minimum fin spacing of 2.5 mm

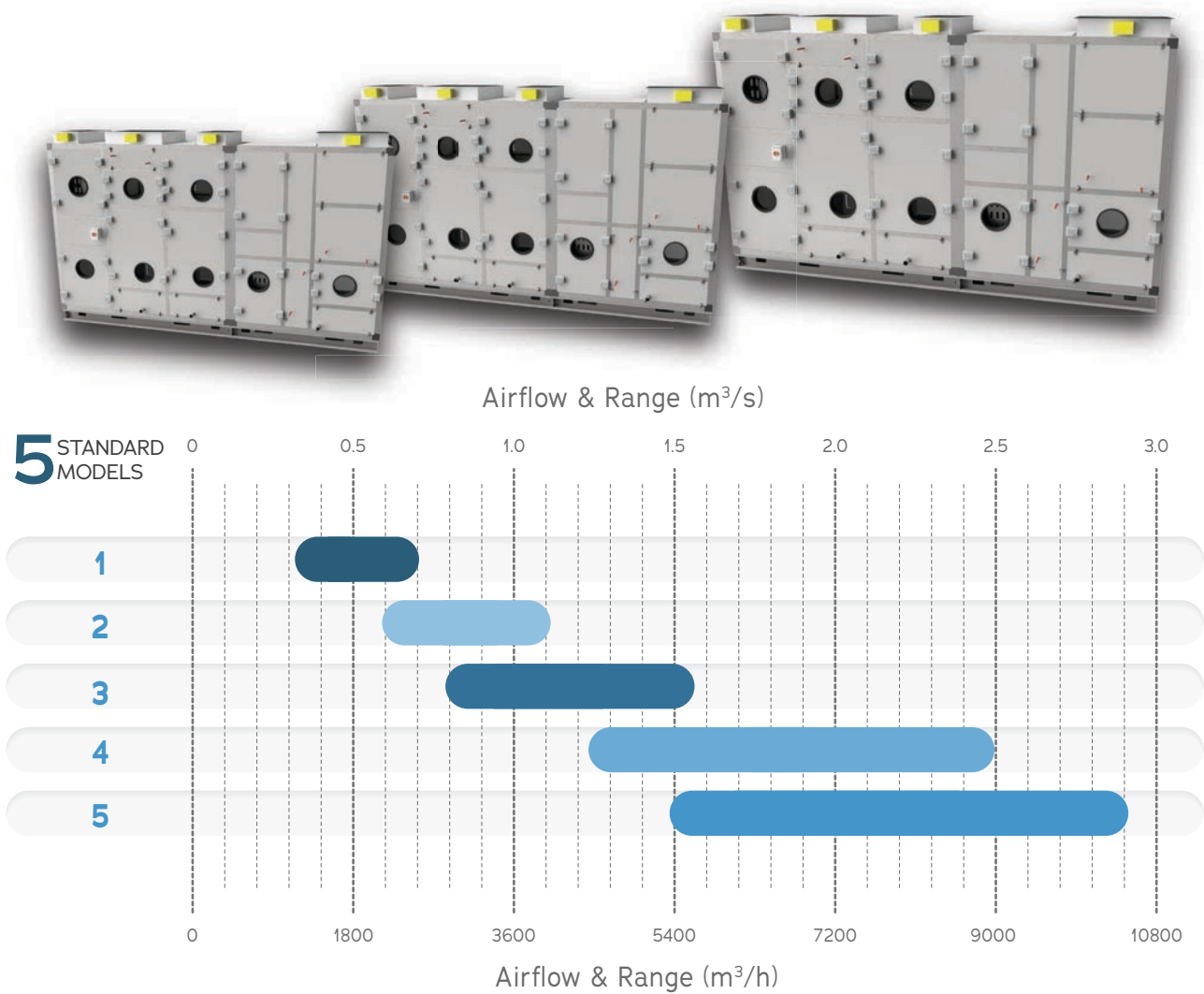
All coils mounted in a 304L stainless coil casing to allow for thermal expansion and contraction of the tubes.

All coils mounted on slide rails for ease of maintenance

VIEWPORTS & LIGHTING:

Viewing ports and illumination installed on the upstream side of filters and drainage trays.

Viewing ports located at a convenient height so prevent use of temporary ladders



THERMAL BREAK FRAMEWORK: REDEFINING CASING PERFORMANCE



At the heart of the unit's performance and design is its use of a specialist TB2 thermal-break framework. This prevents heat transfer through the casing, protecting against cold bridging, condensation and energy loss. It supports stable internal air conditions, maintains hygiene standards and improves overall thermal efficiency. The result is an energy-efficient, compliant system that supports long-term reliability in healthcare environments.

CASING PARAMETERS (BS-EN 1886:2025 standard)			
TB2	L2		
Thermal Bridging	Leakage Class		
D2	T2		
Casing Strength	Thermal Transmittance		

Mechanical Performance Criteria:

Every cabinet unit shall be manufactured and achieve the minimum (or exceeded) the mechanical performance criteria published in Table 8 HTM 03-01 Part A (reference):

AHU Element	Minimum Standard	Information
Construction	Double metal or composite skin with sandwiched insulation to "Euroclass A" fire rating Smooth internal surface without channels or ridges No projecting spire or tech screws inside the unit.	
Internal Surface Finish	Non-corrodible, washable and smooth and of a colour that allows accumulations of dirt to be easily seen	Stainless steel or white powder coated mild steel or with an equivalent protective treatment; but NOT surface galvanised
Thermal Transmittance	BS EN 1886 Class T2	Manufacturers Declaration
Thermal Bridge	BS EN 1886 Class TB2	Manufacturers Declaration
Deflection	BS EN 1886 Class D2	Manufacturers Declaration
Factory Airtightness Test (pre-delivery)	BS EN 1886 Class L2	Manufacturers Factory Test
Site Airtightness Test	BS EN 1886 Class L2	Test at +700 Pa and -400 Pa
Filter Frame Bypass Leakage	BS EN 1886 Section 7	
Supply and extract intake and discharge isolation dampers	BS EN 1751 C3 (low loss)	Motorised opening and fitted with an end switch and spring return
Access doors	Secured from casual access. Fan chamber doors to be fitted with a two-stage latch	Key or similar device required to open access doors Adjustable door hinges to minimise leakage on site
Specific fan power internal (SFPint)	Current Eco design requirement for energy-related products (ErP)	EU 1253 - 2014
Specific fan power system (SFPsyst)	UK Building Regs	Part L2
Energy recovery	Current ErP EU 1253	Run-around coil - 68% Heat pipes - 73% Plate heat exchanger - 73% Thermal wheel - 73% Heat pump - EU 2281/201 Any other device - see standard

HTM 03-01 CABINET

SPECIALIST **HEALTHCARE** AHU
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HOSPITAL & HEALTHCARE AIR MANAGEMENT EXPERTS

PLUG and PLAY control systems

Mansfield Pollard's Digital Control Platform ensures HTM 03-01 aligned control strategy with pre-programmable operating modes for quick set-up and flexible operation. All units with factory integrated controls are fully wired, pre-programmed, tested with pre-configured sequences aligned to HTM 03-01 operating intent ensuring consistent and reliable installation.



CONTROLS & FUNCTIONALITY



- Free cooling and free heating management
- VRV DX direct expansion integration
- Programme scheduling & temperature logic
- pre-loaded control parameters

INTERFACE & CONNECTIVITY



- Local supervision with option for remote monitoring
- BMS integration via Modbus or BACnet
- Optional water valve control
- User-friendly digital interface

MONITORING & SAFETY



- Analogue filter pressure monitoring
- Shut-off dampers with pre-wired spring return
- Actuators on all air inlets and outlets
- Easy maintenance

LIGHTING & POWER



- 24V IP67 rated internal LED lighting operated from a single switch
- Separate power supply for internal lighting and integrated service socket

24/7 REMOTE monitoring

Remote monitoring enables quick and easy optimisation to maximise unit performance and can lower OpEx through minimum energy costs and prevent downtime and major repairs through analysis for pro-active maintenance.

Access real time historical data trends to improve system efficiency, set instant alarms to prevent disruption and customise your own dashboard to display the metrics and information most relevant to your operations



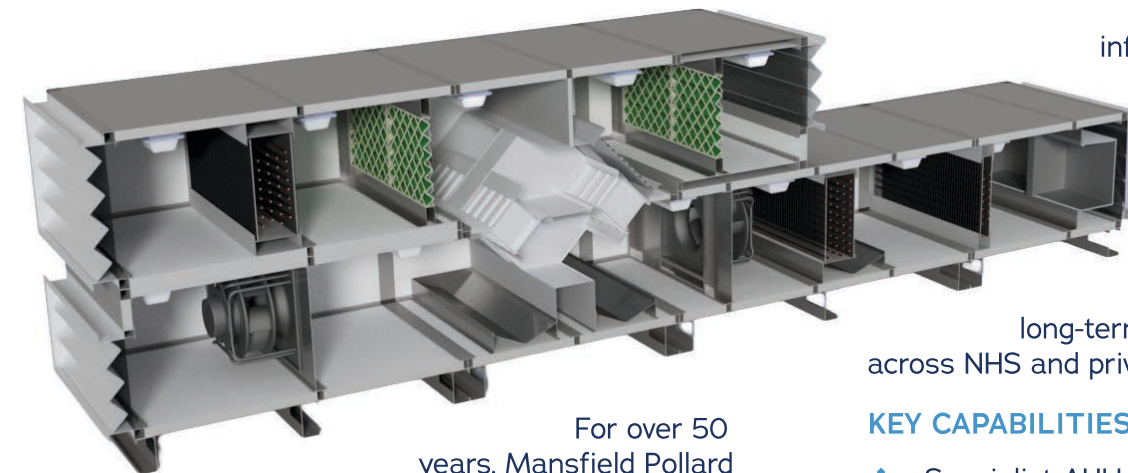
MONITOR & CONTROL

REDUCE DOWNTIME

OPTIMISE EFFICIENCIES

REAL-TIME MANAGEMENT

PREDICTIVE ANALYTICS



For over 50 years, Mansfield Pollard has delivered advanced air handling solutions to hospitals, clinics and critical care environments. Our systems serve operating theatres, diagnostics, isolation wards and recovery spaces, and are built to perform in demanding clinical settings. We engineer air management systems around clinical priorities, including hygiene control,

infection risk, low maintenance and thermal integrity. Every unit is designed, manufactured and tested in house to deliver compliance, resilience and long-term value for estates teams across NHS and private healthcare sectors.

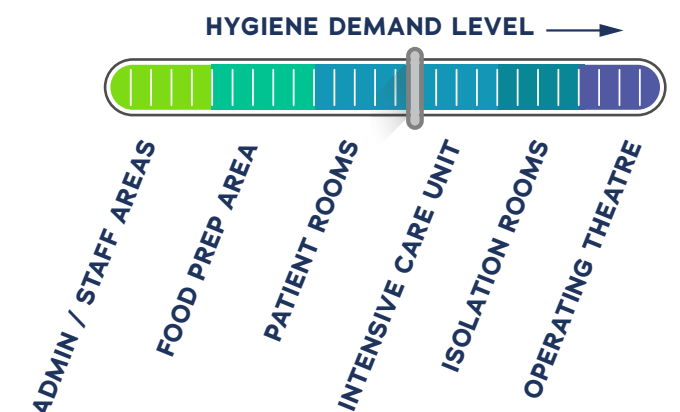
KEY CAPABILITIES

- ❖ Specialist AHU design for high-dependency clinical spaces
- ❖ Full project lifecycle support, from technical submission to commissioning
- ❖ Experience across both new build hospitals and live-site refurbishments
- ❖ In house controls, compliance testing and aftercare services



SPECIALIST CARE NEEDS SPECIALIST AIR

Our systems are installed in healthcare facilities across the UK, supporting infection control, patient comfort and estates decarbonisation goals. From standalone AHUs to multi-unit projects, we bring clinical insight and engineering depth to every design.



Infection Control

Separate extract / supply airflows & room pressure management.



Hazard Control

Multi filtration stages & microbially inert design.



Climate Control

Heating / cooling and humidity control options.



Energy Control

High efficiency energy recovery and variable speed fans.

HTM 03-01 CABINET
AIR HANDLING UNIT



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