



DAIKIN APPLIED (UK) LTD

HTM 03-01

AHU PRODUCT SOLUTIONS



**MADE IN
BRITAIN** 

Specialist air handling solutions for healthcare ventilation

HTM 03-01 compliant solutions | UK manufactured | Bespoke design

Applied HVAC specialists for complex, large scale projects
Manufacturing AHUs, Chillers, and Heat Pumps for HVAC systems in the UK
Formerly McQuay

AHUs

Chillers

Service

Rentals

Spares

SPECIALIST HEALTHCARE VENTILATION

Healthcare ventilation demands robust, reliable and maintainable solutions designed around the specific requirements of each application.

Daikin Applied UK has over 60 years' experience manufacturing air handling units in the UK, with extensive expertise in healthcare applications and the requirements of HTM 03-01.

Our healthcare AHU range offers two complementary solutions for new-build and refurbishment projects, supported by UK-based engineering, manufacturing, factory testing and site support.

D-AHU PROFESSIONAL

Fully bespoke HTM 03-01 solutions engineered around complex and project-specific requirements.



0.21 m³/s
up to 40 m³/s



HTM-PRO T SERIES

Compact HTM 03-01 compliant solutions, with widths from just 740 mm – ideal for refurbishment, modular construction and space-constrained plant rooms.



0.25 m³/s
up to 2.95 m³/s



DAPUK IS CERTIFIED TO
ISO 9001, ISO 14001,
AND ISO 45001

D-AHU PROFESSIONAL

HTM 03-01 SOLUTIONS

D-AHU Professional can be configured with a range of heat recovery solutions to meet the specific requirements, plant layout and design priorities of each healthcare project.

PHE Plate Heat Exchanger

A compact, high-efficiency heat recovery solution designed to minimise leakage and cross-contamination between supply and extract airflows.

Key benefits

- High-efficiency heat recovery
- Low leakage and cross-contamination
- Spatially efficient
- Easy to maintain

RAC Run Around Coil

A fully separated heat recovery solution allowing supply and extract air paths to remain independent and, where required, located remotely from one another.

Key benefits

- Isolated supply and extract airflows
- Minimises cross-contamination
- Flexible plant layout
- Easy to maintain

TW Thermal Wheel

A compact heat recovery solution offering high-efficiency energy recovery where suitable for the application and project requirements..

Key benefits

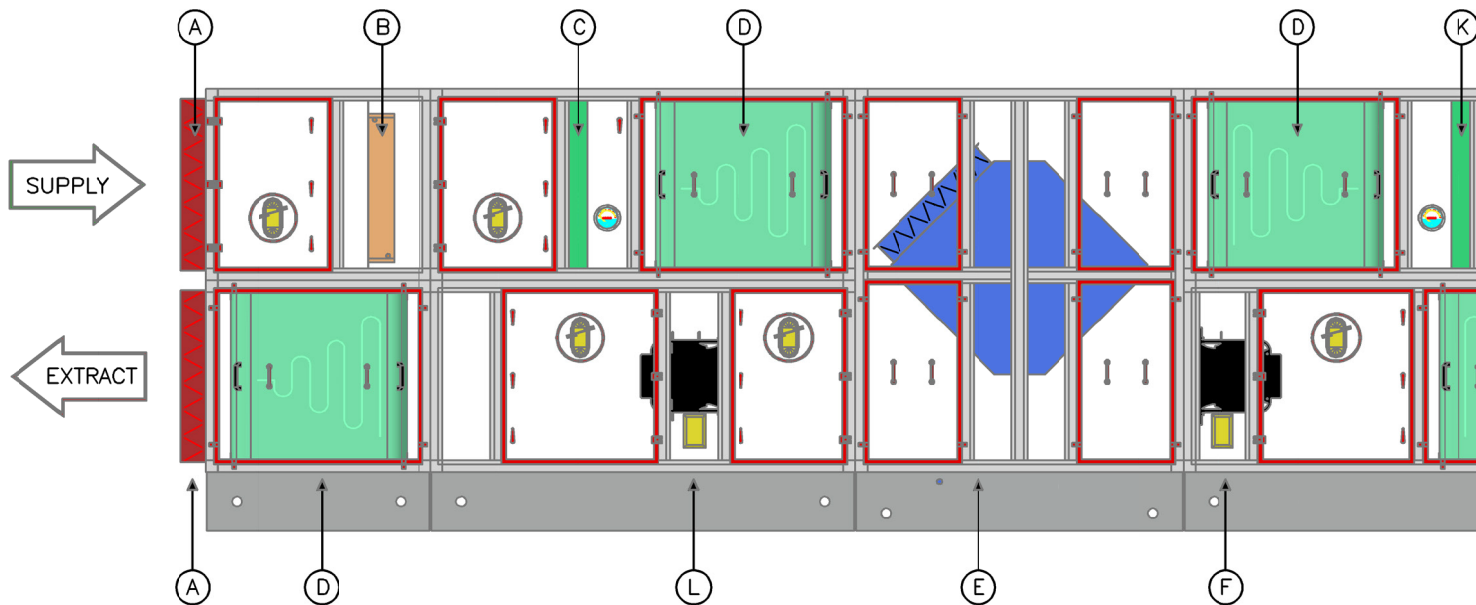
- High-efficiency heat recovery
- Compact footprint
- Spatially efficient
- Easy to maintain

The optimum configuration will depend on the requirements of the individual healthcare application and project specification.



D-AHU PROFESSIONAL

PHE SOLUTION



A: Minimum class 3 (BS EN 1751) Aluminium opposed blade low leakage dampers with no plastic parts, suitable for motorisation & included to all openings. Spring return actuators with end switches by others. SS304 & SS316 construction also available.

B: Bare tube fog coil designed to increase incoming air by 2K to protect filters. Primarily, the construction will include for copper headers, copper tubes & SS304 casing/coil mounts as standard. Access provided both sides of the coil.

C & L: ePM10>50% pre-filtration mounted in SS304 front withdrawal frames with access upstream to satisfy BS EN 1886. Magnehelic gauges available when specified, otherwise, pressure & condition monitoring assumed via the BMS.

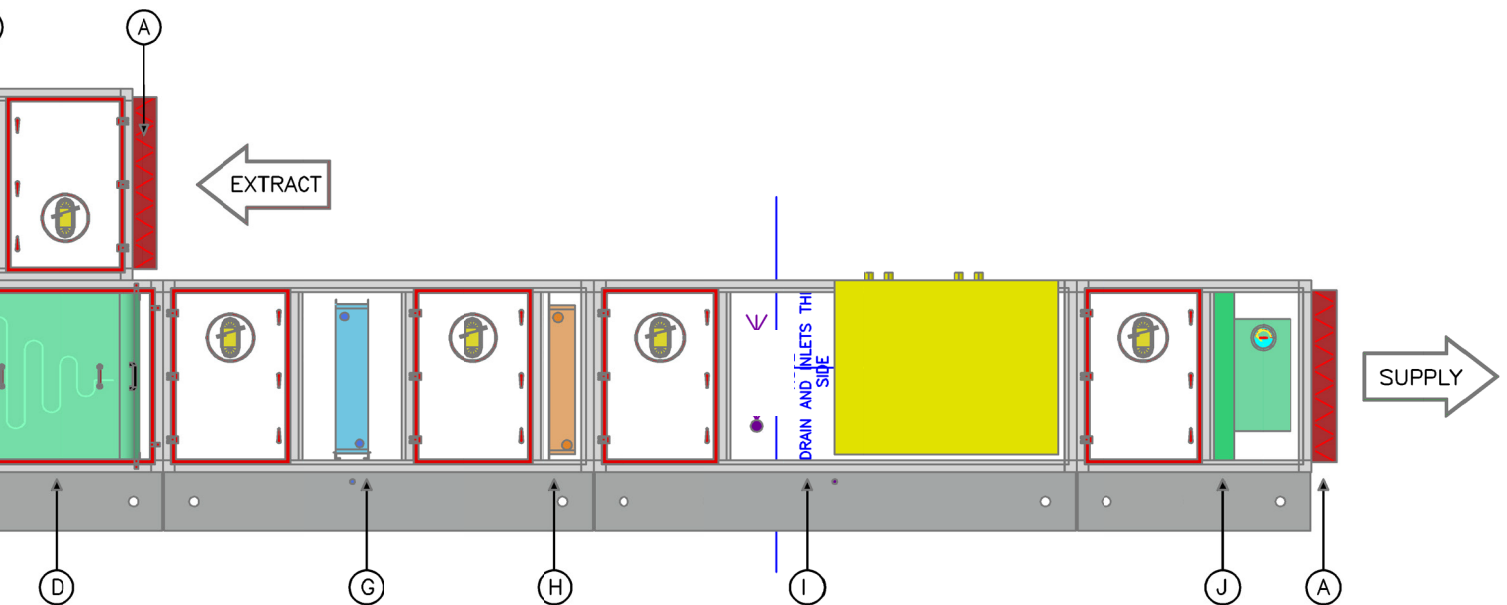
D: Metal cased rockwool lined attenuation available on request. Situated as close to the fans (noise source) as possible whilst also considering the most spatial effective solution.

E: High efficiency heat recovery to satisfy the latest ERP EU1253 regulations. PHEs include for an all-metal construction with no plastic parts to plates or dampers. Drain pans will be fixed with suitable access for maintenance.

F: Dual high efficiency EC fans complete with plug & socket power connections. All fan arrays will be sized to cater to 80% duty output upon a single fan failure unless otherwise stated in our proposal. Fan doors are extended to ensure rear fans can be accessed and withdrawn without the need to maintain/withdraw the front fan. In all smaller AHUs where only single fans are proposed, a direct spare complete with a plug & socket will be provided. All fans will be mounted on the bottom deck as per the ideal arrangement to facilitate maintenance.

DESIGN BENEFITS

- ✓ Low levels of leakage & cross contamination between airflows.
- ✓ Highest energy recovery efficiencies.
- ✓ Easiest solution for maintenance.
- ✓ Spatially effective.



G: CHW or DX cooling coils complete with extended drain pan on the air off-side to ensure all moisture from coil fins, headers & eliminator are captured. Primarily, all cooling coils will be copper header/copper tube/aluminium vinyl fins/SS304 casing as standard with a minimum fin spacing of 2.5mm. Coils above 1200mm in height will include for intermediate drain trays. All coil mounts & drain pans will be minimum SS316. Access provided both sides of the coil. Drain pans will be fixed with suitable access for maintenance. Slide out moisture eliminator in its own cassette will be provided for applications >2m/s face velocity or where specified (not shown above). All moisture eliminator elements will be minimum SS304 construction. No plastic will be utilised in line with the clause to reduce the use of plastics.

H: Main heater batteries will be sized in accordance with the heat recovery/specification. They will be copper header/copper tube/copper fin & SS304 case construction. Access provided both sides of the coil.

I: Steam injection type humidifiers (where specified). All humidifier distribution parts within the air stream will be manufactured from stainless steel. Electrode type humidifiers will include for stainless steel electrodes (Hygromatik), resistive type to include for heaters made from Incoloy® 825. All humidifiers will include for extended stainless drain within the required absorption distance. Where space only for future install is required, the drain pan, and access will be provided.

J: ePM1>50% final filter mounted in SS304 front withdrawal frames to satisfy BS EN 1886 with access upstream. The filter will be a compact rigid bag type. Magnehelic gauges available where specified, otherwise, pressure & condition monitoring assumed via the BMS.

D-AHU PROFESSIONAL

RAC SOLUTION



A: Minimum class 3 (BS EN 1751) Aluminium opposed blade low leakage dampers with no plastic parts, suitable for motorisation & included to all openings. Spring return actuators with end switches by others. SS304 & SS316 construction also available.

B: Bare tube fog coil designed to increase incoming air by 2K to protect filters. Primarily, the construction will include for copper headers, copper tubes & SS304 casing/coil mounts as standard. Access provided both sides of the coil.

C & L: ePM10>50% pre-filtration mounted in SS304 front withdrawal frames with access upstream to satisfy BS EN 1886. Magnehelic gauges available when specified, otherwise, pressure & condition monitoring assumed via the BMS.

D & O: EU1253 compliant heat recovery coils with hinged access provided to both sides of the coils. The supply side (primarily heating) construction will follow the same guidelines as the main heater batteries with copper tubes & copper fins. Similarly, the extract side coil (primarily cooling) will follow the same

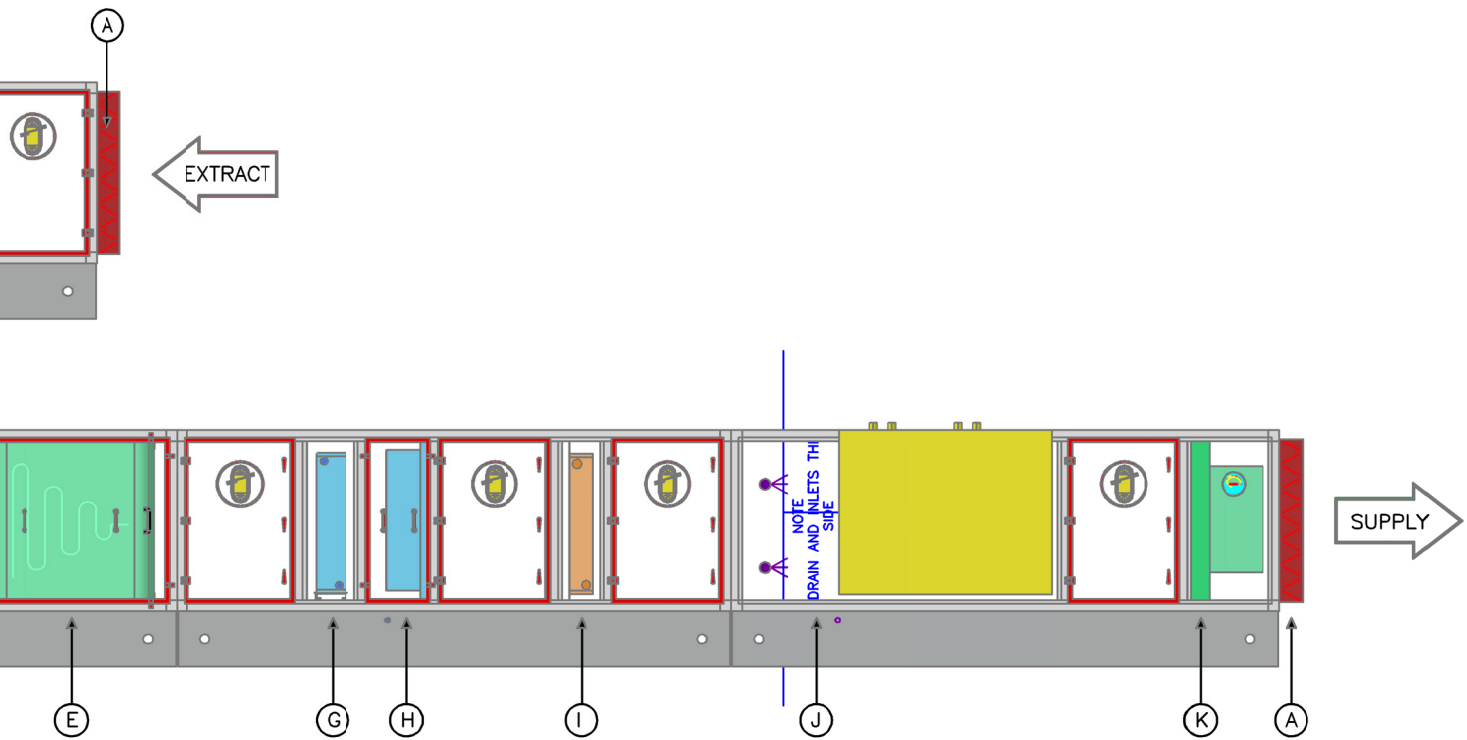
construction guidelines as the main cooling coils, with 1 in 20 slope extended drain pan, 2.5mm minimum fin spacing, eliminators to velocities >2m/s & a copper tube/aluminium vinyl fin construction. The casing and coil mounts to both supply & extract coils will be SS304.

E: Metal cased rockwool lined attenuation available on request. Situated as close to the fans (noise source) as possible whilst also considering the most spatial effective solution.

F & M: Dual high efficiency EC fans complete with plug & socket power connections. All fan arrays will be sized to cater to 80% duty output upon a single fan failure unless otherwise stated in our proposal. Fan doors are extended to ensure rear fans can be accessed and withdrawn without the need to maintain/withdraw the front fan. In all smaller AHUs where only single fans are proposed, a direct spare complete with a plug & socket will be provided.

DESIGN BENEFITS

- ✓ Isolated decks ensuring no cross contamination between supply & extract.
- ✓ Extract can be mounted remote from supply.
- ✓ Easily maintained.



G: CHW or DX cooling coils complete with extended drain pan on the air off-side to ensure all moisture from coil fins, headers & eliminator are captured. Primarily, all cooling coils will be copper header/copper tube/aluminium vinyl fins/SS304 casing as standard with a minimum fin spacing of 2.5mm. Coils above 1200mm in height will include for intermediate drain trays. All coil mounts & drain pans will be minimum SS316. Access provided both sides of the coil. Drain pans will be fixed with suitable access for maintenance.

H & P: Slide out moisture eliminator (shown above) in its own cassette for applications >2m/s face velocity or where specified. All moisture eliminator elements will be minimum SS304 construction. No plastic will be utilised in line with the clause to reduce the use of plastics.

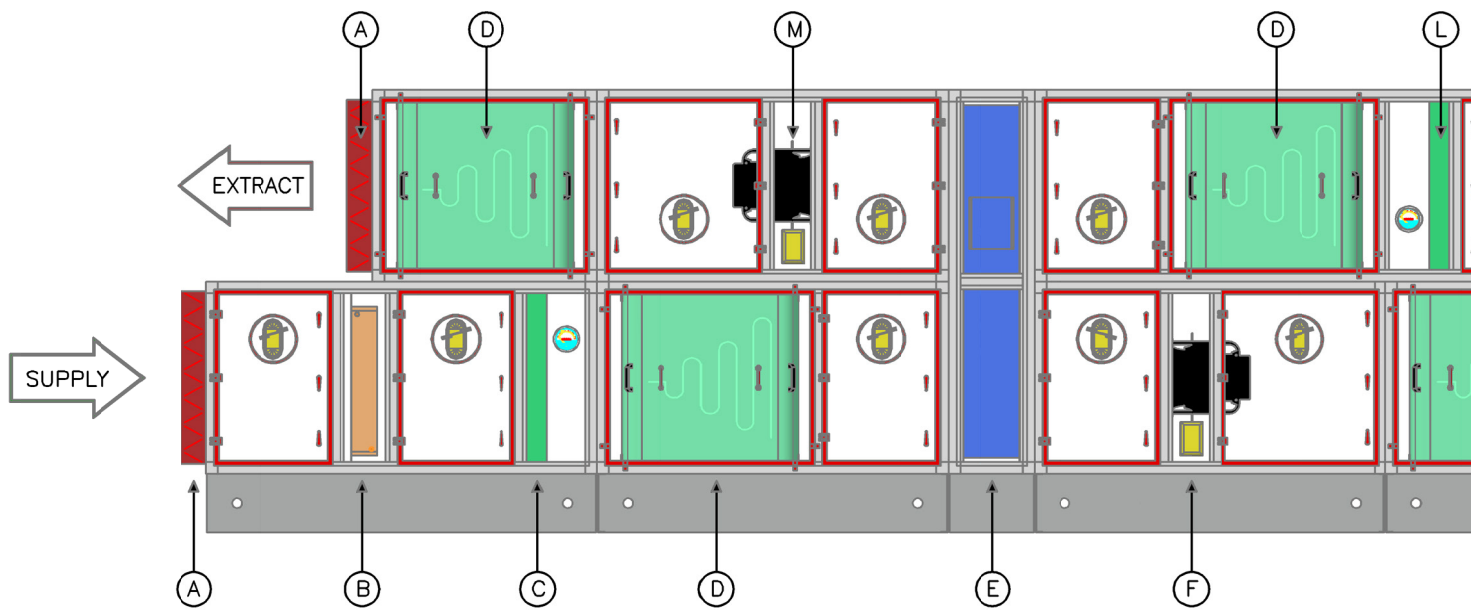
I: Main heater batteries will be sized in accordance with the heat recovery/specification. They will be copper header/copper tube/copper fin & SS304 case construction. Access provided both sides of the coil.

J: Steam injection type humidifiers (where specified). All humidifier distribution parts within the air stream will be manufactured from stainless steel. Electrode type humidifiers will include for stainless steel electrodes (Hygromatik), resistive type to include for heaters made from Incoloy® 825. All humidifiers will include for extended stainless drain within the required absorption distance. Where space only for future install is required, the drain pan, and access will be provided.

K: ePM1>50% final filter mounted in SS304 front withdrawal frames to satisfy BS EN 1886 with access upstream. The filter will be a compact rigid bag type. Magnehelic gauges available where specified, otherwise, pressure & condition monitoring assumed via the BMS.

D-AHU PROFESSIONAL

TW SOLUTION



A: Minimum class 3 (BS EN 1751) Aluminium opposed blade low leakage dampers with no plastic parts, suitable for motorisation & included to all openings. Spring return actuators with end switches by others. SS304 & SS316 construction also available.

B: Bare tube fog coil designed to increase incoming air by 2K to protect filters. Primarily, the construction will include for copper headers, copper tubes & SS304 casing/coil mounts as standard. Access provided both sides of the coil.

C & L: ePM10>50% pre-filtration mounted in SS304 front withdrawal frames with access upstream to satisfy BS EN 1886. Magnehelic gauges available when specified, otherwise, pressure & condition monitoring assumed via the BMS.

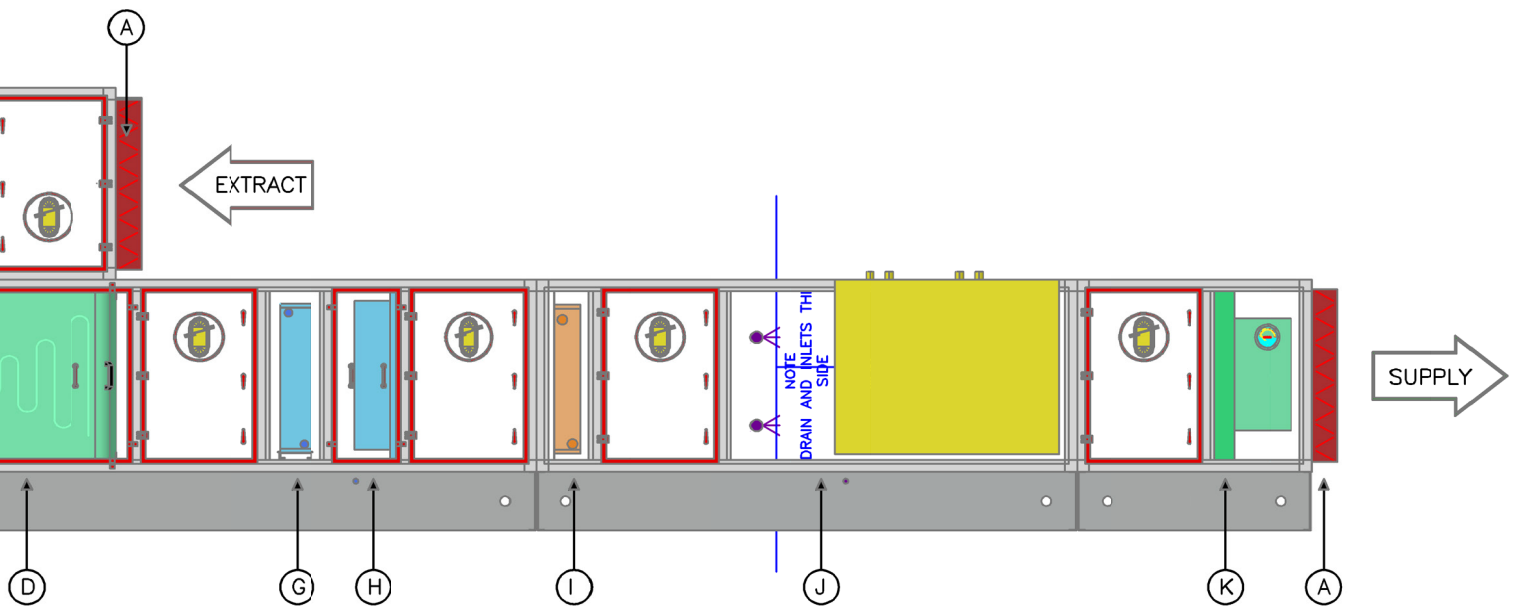
D: Metal cased rockwool lined attenuation available on request. Situated as close to the fans (noise source) as possible whilst also considering the most spatial effective solution.

E: High efficiency heat recovery to satisfy the latest ERP EU1253 regulations. Thermal wheels will include for a 1 in 20 slope drain pan local to the section, and will be comprised of an aluminium construction, complete with purge sector & enhanced tightness seals. Only sensible type rotors will be utilised in line with the guidance. Access will be provided both sides of the thermal wheel on both supply & extract to facilitate maintenance and cleaning.

F & M: Dual high efficiency EC fans complete with plug & socket power connections. All fan arrays will be sized to cater to 80% duty output upon a single fan failure unless otherwise stated in our proposal. Fan doors are extended to ensure rear fans can be accessed and withdrawn without the need to maintain/withdraw the front fan. In all smaller AHUs where only single fans are proposed, a direct spare complete with a plug & socket will be provided.

DESIGN BENEFITS

- ✓ Most spatially effective solution.
- ✓ High efficiency heat recovery availability.
- ✓ Easily maintained.



G: CHW or DX cooling coils complete with extended drain pan on the air off-side to ensure all moisture from coil fins, headers & eliminator are captured. Primarily, all cooling coils will be copper header/copper tube/aluminium vinyl fins/SS304 casing as standard with a minimum fin spacing of 2.5mm. Coils above 1200mm in height will include for intermediate drain trays. All coil mounts & drain pans will be minimum SS316. Access provided both sides of the coil. Drain pans will be fixed with suitable access for maintenance.

H: Slide out moisture eliminator (shown above) in its own cassette for applications >2m/s face velocity or where specified. All moisture eliminator elements will be minimum SS304 construction. No plastic will be utilised in line with the clause to reduce the use of plastics.

I: Main heater batteries will be sized in accordance with the heat recovery/specification. They will be copper header/copper tube/copper fin & SS304 case construction. Access will be provided both sides of the coil.

J: Steam injection type humidifiers (where specified). All humidifier distribution parts within the air stream will be manufactured from stainless steel. Electrode type humidifiers will include for stainless steel electrodes (Hygromatik), resistive type to include for heaters made from Incoloy® 825. All humidifiers will include for extended stainless drain within the required absorption distance. Where space only for future install is required, the drain pan, and access will be provided.

K: ePM1>50% final filter mounted in SS304 front withdrawal frames to satisfy BS EN 1886 with access upstream. The filter will be a compact rigid bag type. Magnehelic gauges available where specified, otherwise, pressure & condition monitoring assumed via the BMS.

HTM-PRO

COMPACT HEALTHCARE VENTILATION

HTM 03-01 COMPLIANT VENTILATION FROM JUST 740 MM WIDE

HTM-Pro is Daikin Applied UK's compact, cabinet-style AHU designed specifically for healthcare applications.

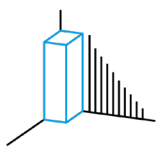
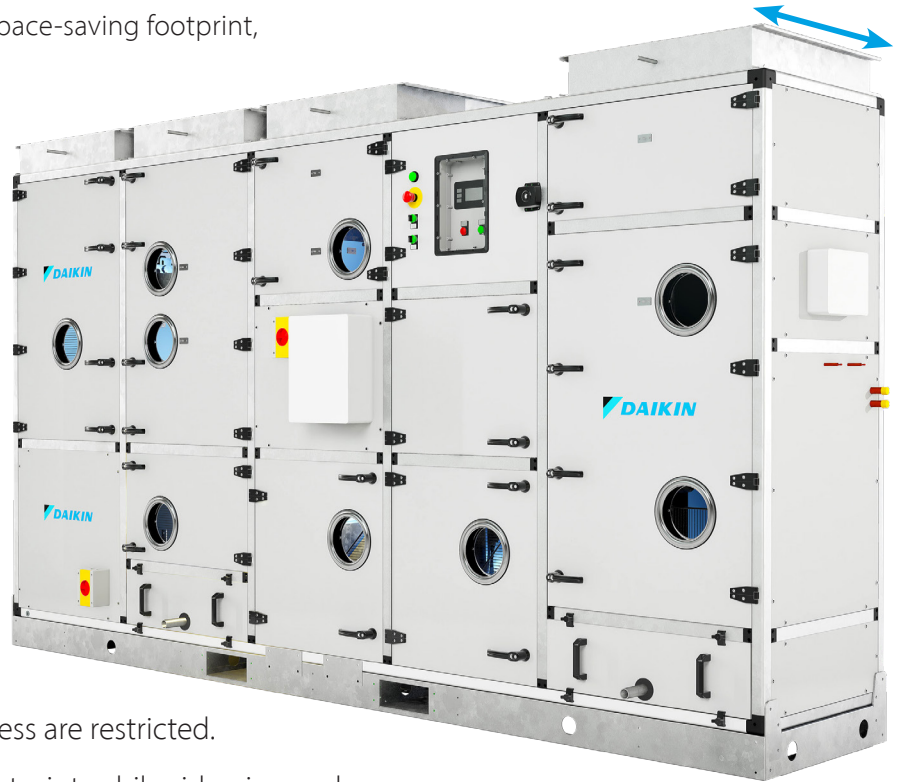
Combining HTM 03-01 compliance with a space-saving footprint,

HTM-Pro is particularly suited to refurbishment, modular healthcare and space-constrained plant rooms, while providing the filtration, airflow, hygiene and maintainability required for healthcare environments.

COMPACT BY DESIGN

Delivered as a fully assembled cabinet unit, HTM-Pro is designed to simplify installation where space and access are restricted.

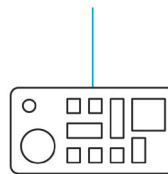
Top duct connections reduce the unit footprint, while side pipework connections allow installation flush to walls.



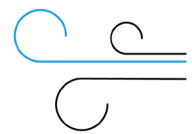
**FROM 740 MM
WIDTH**



7 SIZES



**PLUG AND PLAY
CONTROLS**



**0.25–2.95 M³/S
AIRFLOW RANGE**

IDEAL FOR

REFURBISHMENTS
WHERE SPACE AND AC-
CESS ARE RESTRICTED

MODULAR HEALTHCARE
FLEXIBLE STANDARDISED
SOLUTION

**SPACE CONSTRAINED
PLANT ROOMS**
COMPACT DESIGN

FILTER

- ePM10 70% (M5) primary filter
- F7 (ePM1 55%) filter last in line
- ePM10 70% (M5) return filter

CONTROL

- Plug and play controls for an easy and quick start-up and unit operation

COIL

- Water fog coil
- -5 °C to 0 °C

COIL

- Water cooling coil
- Water re-heat coil
- 15 °ΔT
- DX/Electric options

CASING AND INSULATION

- T2 TB2 Thermal break construction
- 42mm double skin panel, mineral wool insulation
- Pre-painted internal and external panels
- Internal Parts: Stainless Steel

FAN

- EC Fans, motor class IE5
- Plug and socket for quick changeover

DRAIN TRAY

- Slide removable
- Tool-free removal

HEAT EXCHANGER

- High-efficiency counter flow plate
- Up to 80% of the thermal energy is recovered

DAMPER

- Class 3, rolled aluminium, lever mechanism, plastic free
- Suitable for motorisation



TECHNICAL DATA

HTM PROFESSIONAL	Model	Size 1	Size 2	Size 3	Size 4	Size 5	Size 6	Size 7
AIRFLOW	m³/s	0.25	0.60	0.95	1.45	1.95	2.45	2.95
HE THERMAL EFFICIENCY	%	>73						
EXTERNAL STATIC PRESSURE	Pa	250	250	300				
POWER INPUT¹	kW	0.9	1.18	1.66	2.48	3.35	4.41	5.22
SFPV²	kW/m³/s	1.69	1.70	1.75	1.71	1.72	1.80	1.77
ELECTRICAL SUPPLY MAIN	Phase (Ph)	3+N+PE						
	Frequency (hz)	50						
	Voltage (V)	400						
	Full Load Current³ (A)	20.2	20.2	20.4	20.2		34.8	
ELECTRICAL SUPPLY AUXILIARY⁴	Phase (ph)	1+N						
	Frequency (hz)	50						
	Voltage (V)	230						
	Full Load Current³ (A)	18.70						
UNIT DIMENSIONS	Width (mm)	740	740	1,100	1,500	1,900	2,040	2,300
	Height⁵ (mm)			2,060			2,150	
	Length⁶ (mm)	3,840					4,100	

Total absorbed power input at nominal airflow and clean filter conditions | 2. SFP and nominal airflow, 300pa and clean filters | 3. Full potential current of fan and controls panel | 4. Auxiliary supply for lighting and service socket | 5. Height includes base and excludes dampers | 6. Length excludes coil pipework.

D-AHU PROFESSIONAL

MATERIALS AND CONSTRUCTION

Materials are selected with consideration for hygiene, corrosion resistance, durability and the requirements of HTM 03-01 for specialised healthcare ventilation.

COMPONENT MATERIALS

Item	Material
External Panel Skins	Pre-coated Steel
Internal Panel Skins	Pre-coated Steel
Dampers	Aluminium
Coil Slides/Mounts	SS304
Fan Bulkheads	SS304
Block off plates	SS304
Drain Trays	SS304
Filter Frames	SS304
Coil Headers	Copper
Coil Tubes	Copper
Heating Coil Fins (Incl RAC Supply)	Copper
Cooling Coil Fins (Incl RAC Extract)	Aluminium Vinyl Coated
Coil Casings	SS304
Plate Heat Exchanger	Aluminium
Thermal Wheel	Aluminium
Fan Frame	Powder Coated Steel
Fan Support Plate/Inlet Nozzle	Galvanized Steel (supplier standard) – Painted available subject to additional cost & lead time

For Product, Service & Maintenance,
Rental, and Spares enquiries:



0345 565 2700



www.daikinapplied.uk
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ISO 14001 Environmental Management System (EMS), and
ISO 45001 Occupational Health and Safety (OH&S) management systems.
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