



**Ventilation Systems**  
Overview Brochure



## Continuous Mechanical Supply & Extract with Heat Recovery otherwise known as 'MVHR'

### Where can it be used?

MVHR is an energy efficient solution for the provision of controlled ventilation in residential and commercial properties with a number of features over traditional ventilation products, such as automated control and summer boost. Specifically designed to meet modern building regulations and energy efficiency objectives. This system is designed to capture the heat that is otherwise lost through ventilation to reduce heat demand particularly in more airtight buildings.

### How does it work?

The centrally located continuously running mechanical supply and extract unit extracts air via ducts from moisture producing

areas or "wet rooms" such as kitchens and bathrooms to remove odours and excessive humidity. The out going air passes through a heat exchanger which transfers the majority of the heat from the extracted air to the incoming air, which is supplied by the second fan, then distributed to the habitable rooms via ducts.

The unit is usually discreetly located in a or roof space and the air is ducted to the rooms. The extract rate is normally boosted at times when excessive moisture is being generated such as when cooking.

Our units have been tested in accordance with the appropriate European legislation EN 13141-7.

All units are equipped with the latest low energy EC-DC motors, some are available with constant flow EC-DC motors as standard.



## Are Titon MVHR units Passivhaus tested?

Yes, some are, but not for full Passivhaus certification purposes. Very few properties in the UK are built to full Passivhaus certification levels. However, many are built with facets of Passivhaus performance in mind.

To this end, we have had our MVHR units tested according to TÜV SÜD standards, including important elements of the Passivhaus testing regime, which are recognised throughout Europe for strict test criteria and commitment to quality.

Titon units can achieve the actual  $\leq 1\%$  leakage recorded during testing in Munich and therefore we can offer this 'PH' specification if required. Please contact us for details. It is important to note all Titon MVHR units are rigorously – and individually – tested under strict conditions to ensure they perform to a high standard.



## MVHR Comparison Chart

	HRV1.35 Q Plus		HRV2 Q Plus		HRV2.85 Q Plus		HRV3 Q Plus		HRV10 Q Plus		HRV10M Q Plus		HRV10.25 Q Plus		HRV10.25M Q Plus		H200 Q Plus	
	TP408HMB	TP418B	TP404HMB	TP414B	TP407HMB	TP417B	TP402HMB	TP412B	TP440HMB	TP480B	TP441HMB	TP481B	TP442HMB	TP482B	TP443HMB	TP483B	TP452HMB	TP462B
Width	600mm		715mm		715mm		715mm		790mm		800mm		790mm		800mm		600mm	
Height excl. Ports	430mm		490mm		490mm		490mm		665mm		675mm		665mm		675mm		200mm	
Depth	285mm		415mm		415mm		415mm		485mm		495mm		485mm		495mm		1000mm	
Depth incl. Mounting Bracket	295mm		426mm		426mm		426mm		495mm		505mm		495mm		505mm		-	
Housing	Zintec Sheet Steel		Zintec Sheet Steel		Zintec Sheet Steel		Zintec Sheet Steel		Expanded Polypropylene		Zintec Sheet Steel		Expanded Polypropylene		Zintec Sheet Steel		Zintec Sheet Steel	
Weight	16kg		24kg		24kg		24.5kg		17.5kg		31kg		18kg		31.5kg		32kg	
Filters	*G3 Synthetic		*G3 Synthetic		*G3 Synthetic		*G3 Synthetic		G4 Pleated Panel Filters		G4 Pleated Panel Filters		G4 Pleated Panel Filters		G4 Pleated Panel Filters		G4 Pleated Panel Filters	
Specific Fan Power (down to)	0.65 W/l/s		0.56 W/l/s		0.52 W/l/s		0.66 W/l/s		0.48 W/l/s		0.48 W/l/s		0.39 W/l/s		0.39 W/l/s		0.55 W/l/s	
Heat Recovery % (up to)	88%		90%		91%		90%		92%		92%		90%		90%		83%	
Available with 100% Summer Bypass*	Y		Y		Y		Y		Y		Y		Y		Y		Y	
Constant Flow	N		Y		Y		N		N		N		N		N		N	
Energy Rating	A		A		A		A		A		A		A		A		A	
Recommended Max. Floor Area (m <sup>2</sup> )	125		170		150		230		180		180		220		220		150	
Airflow (m <sup>3</sup> /h) at 100Pa	217		285		330		415		475		475		505		505		300	
0-10V Connections for B variants	N		Y		Y		N		Y		Y		N		Y		N	
Electrical power	230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse		230V ~ 50/60Hz, 5A fuse	
Duct heater connection	N		Y		Y		N		Y		Y		N		Y		N	
Required ducting Ø	125mm		150mm		150mm		150mm		150mm		150mm		150mm		150mm		150mm	
Available - Left and Right handed	Y		Y		Y		Y		N		N		N		N		N	

\* Optional G4 Pleated Panel Filters available

## Controls and switches

### auramode®

Low voltage LCD display with user friendly interface. Available in multiple languages, with 7 day and 8 programmable fan speed settings.



### auralite®

A low voltage LED system status indicator which is wired to, but sited remotely from the HRV unit.



### aurastat®

A low voltage intelligent LCD controller for system information and set up which is wired to, but sited remotely from the HRV Unit.



### 3 speed switch

A low voltage switch to change between setback, continuous or boost running speeds. The switch is wired to, but sited remotely from the HRV unit.



### Humidistat

Set to put the unit in boost when a predefined level of relative humidity is met. Wired to, but sited remotely from the HRV unit.



### Sensors

CO<sub>2</sub>, Temperature, Humidity and Air Quality sensors are all available in conjunction with our aurastat®. Creating Demand control when you need it.



# Continuous Mechanical Extract & Background Ventilators

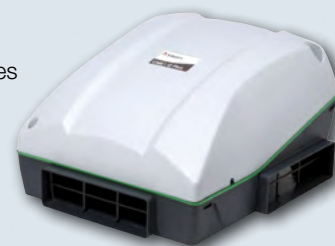
**An MEV/CME system works by continually extracting stale polluted air from rooms where moisture is generated.**

Fresh air is normally provided from outside to habitable rooms by trickle ventilators fitted on windows, creating a flow of clean fresh air throughout the dwelling. The extract air is ducted from "wet rooms" to the outside and the extract rate is normally boosted at times when excessive moisture is being generated, such as when cooking or bathing. Titon offers solutions for both centralised and decentralised continuously running extract systems.

## Centralised Mechanical Extract Ventilation

### CME2 Q Plus

- Total airflow 490 m<sup>3</sup>/h at 100Pa
- Compact – unit is very small and can be fitted in cupboards or loft spaces
- Integral humidity sensor option
- First fix base version available
- Only unit in the market with rectangular spigots connecting ports suitable for rectangular ducting
- Low energy, long life EC-DC motors



## Decentralised Mechanical Extract Ventilation

### Solitude (Constant Flow) and Solace (Non-Constant Flow)

- Low energy, long life EC-DC motors
- 100mm bathroom/kitchen extract fan
- Aesthetic flat front cover design
- Energy efficient EC brushless motor
- Optional integral humidity sensor and/or timer
- Extract rates of 21/29/47/83 m<sup>3</sup>/h
- Sound pressure dB(a) @ 3m 11/13/23/32
- SFP down to 0.09 w/l/s



## Trimbox NO<sub>2</sub> Filter<sup>®</sup>

**Titon's Award winning Trimbox NO<sub>2</sub> Filter<sup>®</sup> reduces Nitrogen Dioxide (NO<sub>2</sub>) which is predominately produced by exhaust gases from diesel engines.**

Due to this pollution arising in cities and urban areas there is a need to implement mitigation measures to improve the indoor air quality (IAQ). The Trimbox NO<sub>2</sub> Filter<sup>®</sup> is an effective means of reducing high NO<sub>2</sub> to an acceptable mean annual concentration level of 40µg/m<sup>3</sup>.

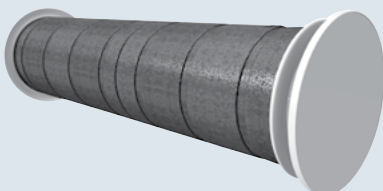
- Effective in reducing pollutants in the home, improving Indoor Air Quality (IAQ) and reducing the risk of Toxic Home Syndrome
- Low pressure drop
- Low cost
- Optional F7 filter can be installed to further improve IAQ
- Compact design
- Compatible with Titon's range of MVHR units
- Fully lined box to reduce duct bound noise and condensation
- The unit can be installed in both intake air and supply ducting
- Fitted with either 3 or 4 active carbon filters
- F7 filter reduces up to 95% of PM2.5 particles
- G4 filter reduces 100% of PM10/35% of PM2.5 particles
- 98% NO<sub>2</sub> reduction at pre filter concentrations of ≈ 200µg m<sup>3</sup>
- Effective silencer
- Third party tested for both NO<sub>2</sub> and Acoustic reductions.



## SR700 - Single Room Heat Recovery Unit

**The new SR700 from Titon is a decentralised ventilation with heat recovery system providing a continuous air change to your home. Extracting stale, moist air and replacing it with warmed, fresh air from outside.**

The system provides an easily installed and maintainable solution for removing internal condensation and eliminating mould growth within the home. Unlike regular extractor fans that waste 100% of heat that passes through them from the home, the SR700 system will recover up to 95% of wasted heat.



**NEW**



HRV Condensate Drain Cover

**NEW**



Sound Attenuating Flexible Ducting

**NEW**



HRV Duct Cover

**NEW**



HRV First Fix Solution