



# MVHR - Ventilation Systems

Overview Brochure

## Ventilation with Heat Recovery (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.

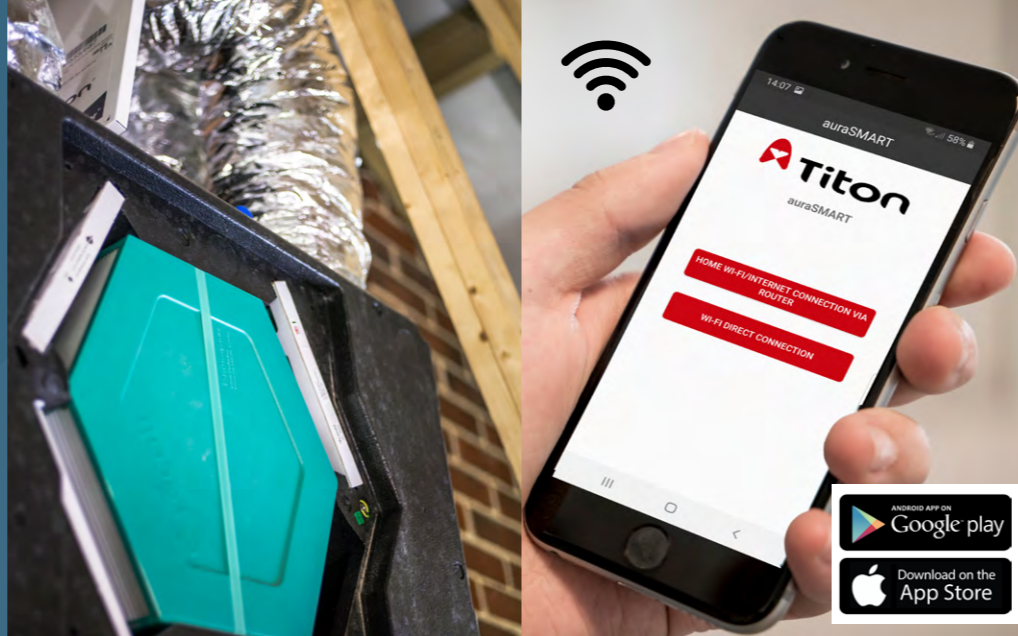
### How does it work?

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 service cupboard 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.



## Introducing the new auraSMART® app

Titon has launched its new auraSMART® app, which enables greater user control of our HRV range of MVHR units. Easy and straightforward to use, the new auraSMART® app is ideal for installers and homeowners alike.

The new auraSMART® app available using Android or iOS mobile devices allows greater flexibility and control. With a user friendly interface, easy monitoring of your whole house ventilation systems is possible. Ideal for commissioning to guide the install process, the new auraSMART® app can cater for it all. Helping you to maintain indoor air quality for a healthy home environment.

- Greater flexibility and control of your MVHR
- Available on android or apple platforms
- Clear and simple interface for ease of use
- Simple and straightforward commissioning
- MVHR status, including service information
- Set-point adjustments, RH, boost overrun times etc.
- WiFi direct connection for installers (no internet required)
- Monitor and control functions
- Full internet connection enables users to check and amend their ventilation whilst away from the home
- Assign different functions to switch inputs on the controller
- Link to multiple HRV units from the same APP
- Compatible with "B" model Titon HRV control systems with WiFi enabled and aura-t™ SMART (WiFi) controller.

## MVHR Comparison Chart

	HRV1.3 Q Plus	HRV1.35 Q Plus	HRV1.6 Q Plus	HRV1.6 HE Q Plus	HRV1.65 Q Plus	HRV2.85 Q Plus	HRV3 Q Plus*	HRV3 PH ECOaura	HRV10 + 10.25 Q Plus	HRV10M Q Plus	HRV20 HE Q Plus	H200 Q Plus
	TP4 18BF	TP4 18BF	TP4 19BF	TP4 19BF	TP4 20BF	TP4 17BF	TP4 12BF	TP4 12B PH	TP4 80B   TP4 82B	TP4 81BF	TP6 53BF	TP4 62B
<b>Width</b>	600mm	600mm	600mm	600mm	600mm	715mm	715mm	715mm	790mm	800mm	752mm	600mm
<b>Height excl. Ports</b>	430mm	430mm	505mm	505mm	505mm	490mm	490mm	490mm	663mm	675mm	708mm	200mm
<b>Depth</b>	285mm	285mm	353mm	353mm	353mm	415mm	415mm	415mm	484mm	470mm	533mm	1000mm
<b>Depth incl. Mounting Bracket</b>	295mm	295mm	363mm	363mm	363mm	426mm	426mm	426mm	495mm	505mm	549mm	-
<b>Housing</b>	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Expanded Polypropylene	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel
<b>Weight</b>	16 kg	16 kg	22 kg	22kg	22kg	24 kg	24.5 kg	24.5 kg	17.5 kg   18 kg	37 kg	46 kg	32 kg
<b>Filters</b>	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Synthetic Filters	ISO Coarse 60% (G4) Pleated Panel Filters	ISO Coarse 60% (G4) Pleated Panel Filters	ISO Coarse 60% (G4) Pleated Panel Filters	ISO Coarse 60% (G4) Pleated Panel Filters
<b>Specific Fan Power (down to)</b>	0.65 W/l/s	0.65 W/l/s	0.49 W/l/s	0.62 W/l/s	0.53 W/l/s	0.54 W/l/s	0.67 W/l/s	0.40 Wh/m <sup>3</sup>	0.52 W/l/s   0.39 W/l/s	0.52 W/l/s	0.48 W/l/s	0.55 W/l/s
<b>Heat Recovery % (up to)</b>	88%	88%	89%	90%	89%	92%	90%	86%	91%   90%	91%	92%	83%
<b>100% Summer Bypass</b>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Constant Flow</b>	N	N	N	N	N	N	Y	Y	N	N	N	N
<b>Energy Rating</b>	A	A	A+	A+	A	A+	A	A	A+   A	A+	A+	A+
<b>Airflow (m<sup>3</sup>/h) at 100Pa</b>	208	217	359	290	290	334	379	379	399   518	399	640	300
<b>Casing breakout dBA @ 3m (running at 100%)</b>	36	36	43	48	51	49	50	50	51   65	51	60	52
<b>0-10V Connections for B variants</b>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Electrical power</b>	230V ~ 50/60Hz, 3A fuse	230V ~ 50/60Hz, 3A fuse	230V ~ 50/60Hz, 3A fuse	230V ~ 50/60Hz, 3A fuse	230V ~ 50/60Hz, 3A fuse	230V ~ 50/60Hz, 3A 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
<b>Duct heater connection</b>	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
<b>Enthalpy Heat Cell</b>	N	Y	Y	N	N	N	Y	N	N   Y	N	Y	N
<b>Cold Climate Option</b>	N	Y	Y	N	N	Y	Y	ENQ	Y	Y	Y	Y
<b>Required ducting Ø</b>	125mm	125mm	125mm	125mm	125mm	150mm	150mm	150mm	150mm	150mm	200mm	150mm
<b>Available - Left and Right handed</b>	Y	Y	Y	Y	Y	Y	Y	Y	N	N	Y	N

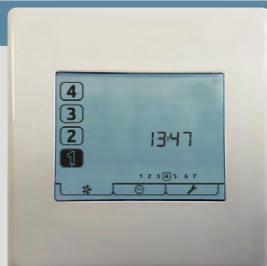
\*For Belgium market, please use HRV3 AR Q Plus (TP4 12AR) for constant flow option. Available with XP52422 - Auramode Constant Flow Controller or TP737 - aura-t™ SMART (WiFi) (BAR m<sup>3</sup>/h) Controller.

## Controls

### aura-t™ SMART (WiFi)

The aura-t™ SMART (WiFi) controller allows straightforward operation of ventilation speeds.

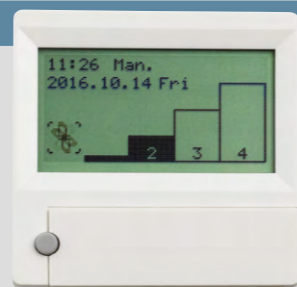
Offering WiFi connection via Titon's auraSMART® app and is available via Android or iOS mobile devices.



### auramode®

Allows straightforward operation of ventilation speeds at a click of a button. Offering a display that is back lit with adjustable light and contrast settings.

Available in multiple languages, with 7 day and 8 programmable fan speed settings.

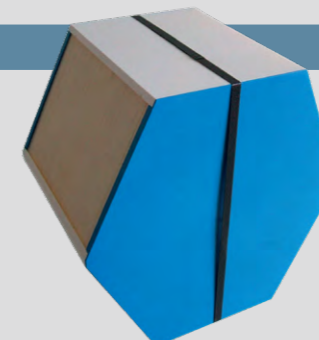


## Options

### Enthalpy Heat Cell

The counter flow enthalpy heat exchanger has a selective polymer membrane film to achieve low air leakage levels while providing moisture recovery from the exhaust air.

Incorporating Antimicrobial (Microban® - integrated hygiene protection)



### aura-t™ SMART (WiFi) On board (optional)

Titon's aura-t™ is now available to be mounted within a HRV unit to allow for easy commissioning and control.

This is an optional extra that has to be requested at time of order/specification.



## Continuous - Mechanical Extract Ventilation

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.

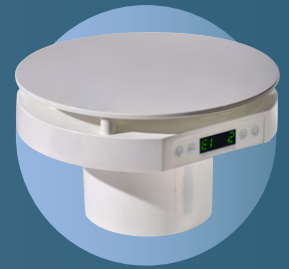
### CME3 Q Plus (Centralised)

- Airflow up to 430 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
- Low energy, long life EC-DC motors
- Optional two part installation
- High energy efficiency levels, via Electronically Commutated (EC) motor
- Easy installation due to innovative sub-assembly and unique packaging design



### Titon Ultimate® dMEV (Decentralised)

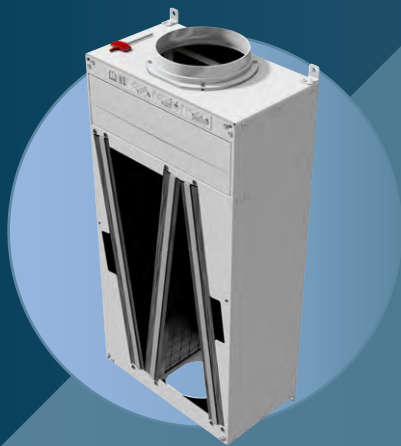
- Airflow up to 108 m<sup>3</sup>/h
- Quiet running, only 10 dB(A) at 3m, low speeds
- Extremely low running costs
- 3 configurable speed options (Trickle, Boost and High Boost)
- Low specific fan power down to 0.11 W/l/s
- Constant flow technology
- 4 button & LED display to allow for simple control



## Filtration - Trimbox NO<sub>2</sub> Filter®

Titon's Award winning Trimbox NO<sub>2</sub> Filter® 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® 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 PM<sub>2.5</sub> particles
- G4 filter reduces 100% of PM<sub>10</sub>/35% of PM<sub>2.5</sub> particles
- 98% NO<sub>2</sub> reduction at pre filter concentrations of ≈ 200µg m<sup>3</sup>



## SR700 - Single Room Heat Recovery

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 87% of wasted heat.



## Titon also offers a wide range of accessories for its expansive MVHR range

HRV Condensate Drain Cover



Sound Attenuating Flexible Ducting



HRV Duct Cover



Duct Pre-heater

