



# Ventilation Systems

## Overview Brochure

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 **Titon**<sup>®</sup>



## Recommended Residential Ventilation Systems

## Natural ventilation with background ventilators & intermittent extract fans

(Formerly system 1)

## Where can it be used?

Suitable for 'less air tight dwellings' in new build or refurbishment; houses, flats or apartments with multi façades.

## How does it work?

**Background ventilators (trickle vents in windows)** provide supply ventilation.

**Intermittent extract fans** remove odours and excessive humidity in wet rooms such as kitchen and bathrooms.



Titon Ultimate® (Intermittent option) and TIFC/A range of Intermittent Fans and Trickle Vents



### Continuous mechanical extract ventilation - Decentralised dMEV (Option)

(Formerly system 3)

### Where can it be used?

Suitable for new build or refurbishment; houses, flats or apartments, usually in dwellings that are classed as 'highly airtight dwellings' in Part F.

## How does it work?

**Background ventilators (trickle vents in windows)** provide supply ventilation.

**Continuously running decentralised fans** remove odours and excessive humidity in wet rooms such as kitchen and bathrooms.

A boost facility (where applicable) provides rapid extraction when necessary to remove high levels of pollutants.



## Titon Ultimate® dMEV and Trickle Vents



### Continuous mechanical extract ventilation - Centralised MEV (Option)

(Formerly system 3)

## Where can it be used?

Suitable for new build; houses, flats or apartments, usually in dwellings that are classed as 'highly airtight dwellings' in Part F.

## How does it work?

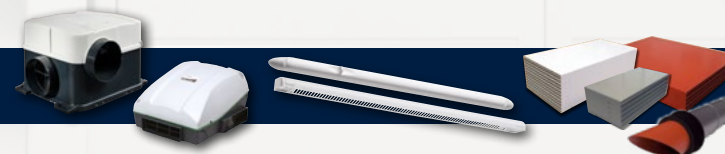
**Background ventilators (trickle vents in windows)** provide supply ventilation.

**A centrally located continuously running mechanical extract fan** extracts air via ducts from wet rooms to remove odours and excessive humidity.

A boost facility (where applicable) provides rapid extraction when necessary to remove high levels of pollutants.



### What ventilation products can be used?



CME Q Plus range of Continuous Mechanical Extract Ventilation Fans and Trickle Vents



## Mechanical ventilation with heat recovery - MVHR

(Formerly system 4)

### Where can it be used?

Suitable for new build; houses, flats or apartments, usually in dwellings that are classed as 'highly airtight dwellings' in Part F.

## How does it work?

A mechanical ventilation heat recovery system (MVHR) works by combining **supply** and **extract** air.

Moisture-laden, **stale air is extracted from wet areas**, such as kitchens and bathrooms. The heat from the extract air is recovered by the heat exchanger in the MVHR unit and is recycled by **warming up the supply air** entering a dwelling.



### What ventilation products can be used?



HRV Q Plus range of Mechanical Ventilation Fans










Mechanical ventilation with heat recovery - MVHR

4 WEEK  
LEAD TIME

HRV Q Plus Range

MVHR Comparison Chart									
	HRV1.25 Q Plus	HRV1.3 Q Plus	HRV1.35 Q Plus	HRV1.6 Q Plus	HRV1.65 Q Plus	HRV4 Q Plus	HRV4.25 Q Plus	HRV20 HE Q Plus	H200 Q Plus
Width	600mm	600mm	600mm	600mm	600mm	600mm	600mm	752mm	600mm
Height excl. Ports	430mm	430mm	430mm	505mm	505mm	602mm	602mm	708mm	200mm
Depth	285mm	285mm	285mm	353mm	353mm	477mm	477mm	533mm	1000mm
Depth incl. Mounting Bracket	295mm	295mm	295mm	363mm	363mm	487mm	487mm	549mm	-
Airflow (l/s) at 100Pa	44	58	60	100	96	118	158	178	83
Heat Recovery % (up to)	88%	88%	88%	83%	83%	91%	91%	92%	83%
Specific Fan Power (down to)	0.59 W/l/s	0.65 W/l/s	0.65 W/l/s	0.49 W/l/s	0.43 W/l/s	0.38 W/l/s	0.43 W/l/s	0.48 W/l/s	0.55 W/l/s
Housing	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel	Zintec Sheet Steel
Weight	16kg	16kg	16kg	22kg	22kg	28.5 kg	28.5 kg	46kg	32kg
Filters	ISO Coarse 55% (G3)	ISO Coarse 55% (G3)	ISO Coarse 55% (G3)	ISO Coarse 55% (G3)	ISO Coarse 55% (G3)	ISO Coarse 85% (G4)	ISO Coarse 85% (G4)	ISO Coarse 65% (G4)	ISO Coarse 60% (G4)
Maximum No. Wet Rooms	Kitchen + 4	Kitchen + 6	Kitchen + 6	Kitchen + 7	Kitchen + 7	Kitchen + 7	Kitchen + 7	Kitchen + 7	Kitchen + 7
Maximum Floor Area (m²) (<5)*	85	115	115	160	160	180	260	290	150
Sound Levels dBA**	23	26	29	24	31	26	32	35	31
Energy Rating	A	A	A	A	A	A+	A	A	A
Available with Summer Bypass	Y	Y	Y	Y	Y	Y	Y	Y	Y
Available with SUMMER boost®	Y	Y	Y	Y	Y	Y	Y	Y	Y
On-board aura-t™ option available	Y	Y	Y	Y	Y	Fitted as standard (B2 Model)	Fitted as standard (B2 Model)	Fitted as standard	N


Product features include Intelligent Humidity Control, Boost, Summer Bypass, SUMMERboost® and Duct Heater Control options.  
\* Based on the unit running at 65% capacity assuming typical system resistances and using ducting equal to the spigot diameter. Unit selection will also be dependant on system design.  
\*\* Breakout sound pressure level at 3m hemispheric at 53% of max flow.



Controls and Switches


**aura-t™ SMART (WiFi)**

The aura-t™ SMART (WiFi) touch-screen controller that allows straightforward operation of ventilation speeds. Offering WiFi connection via Titon's auraSMART® app.




**aura-t™ B and HMB**

Is a simple yet powerful touch-screen LCD display for programming, commissioning and occupancy with on board capabilities.




**auraSMART® - app**

Has user friendly interface for easy monitoring of your system. Ideal for commissioning to guide the install process. The auraSMART® app can cater for it all.




**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.



**aura-t™ on-board**

Titon's aura-t™ is now available to be mounted within a HRV unit. This is an optional extra

HRV 4 B2 model and 20 HE Q Plus model fitted as standard.



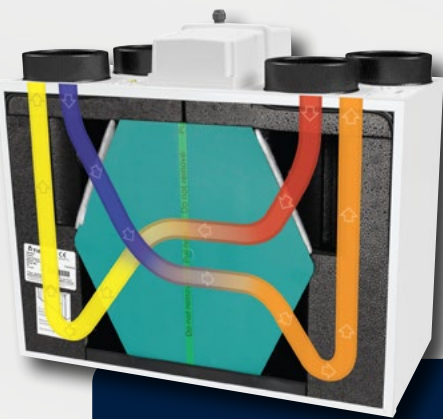
# Mechanical ventilation with heat recovery - MVHR

The HRV Q Plus Eco Range from Titon offers a high capacity continuously running MVHR unit, which is amongst the quietest on the market. Independently tested by the BRE to BS EN 13141 – the only standard specific to the residential sector. There's no need to enclose our MVHR units, the acoustic properties are exceptional.

Combining extremely low power consumption and a highly efficient heat exchanger, these ultra-compact

units also enhance SAP performance via Appendix Q, while remaining versatile enough in size to be installed in either large apartments or small to medium-sized dwellings.

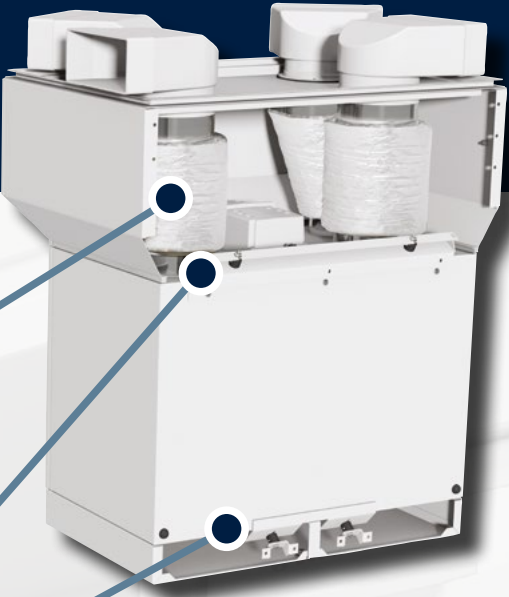
Available in vertical or horizontal format depending on the application requirement, Titon offers a comprehensive range of heat recovery units which aid indoor ventilation to create a healthy and clean air environment.



## Sound Attenuator – Semi Flexible Ducting

Titon's Semi Flexible Sound Attenuators consists of a strong multiple layered corrugated perforated aluminium inner duct with an aluminium/polyester laminated outer jacket. The space between the inner and outer duct is filled with 25mm sound absorbing material which is protected by a vapour barrier.

The duct is fitted with galvanised metal sleeves at both ends to fit to duct work – female spigots for direct connection to MVHR or duct connectors.



**First Fix Solutions** are designed to make installation of ducting from the ceiling void to the unit easier and to give a high quality finish. It will help reduce installation time and complete the overall appearance of any installation.

**Duct Covers** are designed to conceal the ducting/silencers from the ports at the top of the unit to the ceiling of the property. The ducting cover also helps reduce ducting breakout noise levels into the room. This both improves the overall appearance of the installation and the noise levels.

**Filter Access** - It's advisable to change your filters every 6-12 months, so easy access is important when replacing old filters. With three panel options available, they offer a quick efficient filter replacement solution.



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**Anti-Vibration/AV Mounting\*** kits that have been specifically designed to isolate the unit from the wall to further reduce any low levels of vibration induced noise from being transmitted to the mounting structure.

\*Units will be despatched with standard mounting brackets if no AV option is selected.

**aura-t™ Controllers** are Titon's new touchscreen controller and are available to be mounted on-board HRV Q Plus units. Allowing simple and straight forward control and commissioning, the aura-t™ allows total control over your unit.

**Condensate Drain Covers** are designed to conceal the service pipe attached to the underside of Titon HRV units to improve overall appearance.



## Benefits & Features

- Specific fan power from 0.38 W/l/s
- Heat recovery up to 92%
- Airflow up to 178 l/s (640 m³/h) at 100 Pa
- High grade filters to protect from external pollutants
- Award winning Trimbox NO<sub>2</sub> Filter® available, to help reduce NO<sub>2</sub> within a MVHR system offering up to 98% reduction with acoustic properties
- Automatic frost protection
- New cooling module option available - HRV Cool Plus™
- Accepts either 204mm x 60mm rectangular ducting, 150mm or 160mm diameter ducting, no adaptors required
- Setback speed and continuous speed
- Summer bypass
- Extensive range of controls; aura-t™, auramode®, aurastat® and auralite® status indicator
- Sensors available; Humidity, CO<sub>2</sub>, Temperature & Air Quality
- Zintec sheet steel or expanded polypropylene casings
- SAP Q tested to EN 13141-7
- Additional duct heater option available
- Ideal for residential and commercial properties
- Extremely low running, resulting in low noise levels due to high quality casing and insulation
- Silencer attenuators available to assist in noise control
- On board aura-t™ capabilities
- 3 filter door options
- Intelligent controller, quick and easy to commission



Mechanical ventilation with heat recovery (MVHR)  
(Formerly system 4)



# Continuous mechanical extract ventilation - Decentralised dMEV

IN STOCK

The Titon Ultimate® dMEV decentralised mechanical extract fan meets all of the new performance requirements. It provides extremely low noise levels, as low as 10 dB(A) and has exceptional airflow performance; it is the ultimate fan.

With adjustable continuous and boost speed settings available, the Titon Ultimate® dMEV utilises an efficient DC motor and incorporates a uniquely designed impeller/guide vane combination to produce high flow rates and pressure.

The Titon Ultimate® dMEV uses a boost overrun and boost delay timer that is adjustable between 0 – 60 minutes and

comes with an intermittent option, giving more flexibility.

The social housing version (humidity control with/or without data logging) is the perfect solution for landlords who want to make sure that mould and condensation are not a constant problem. Combined with a built in lock out button for installers/landlords to stop settings being modified that could affect the ventilation rates.

The Titon Ultimate® dMEV is easy to maintain, simple to monitor using its unique data logging facility/app and can be commissioned in minutes.

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Low profile with aesthetic circular design



Unique high performance impeller and guide vane design



CFC Ceiling Fan Cuff available. Independently tested to BS EN 1364-2: 2018 Fire Resistance Tests for non-load bearing elements – Part 2: Ceilings and additional guidance from BS EN 1366-3: 2009. (Test Report 510322B/R). Up to 60 minutes integrity and insulation

## Benefits & Features

- PCDB listed for inclusion within SAP
- Low specific fan power down to 0.11 W/l/s
- Airflow up to 30 l/s (108 m³/h)
- Extremely low running costs
- 3 configurable speed options (Trickle, Boost and High Boost)
- Eligible for Energy Compliance Obligation (ECO) fourth iteration funding
- Constant flow technology designed to run continuously (24/7)

- 4 button & LED display to allow for simple control
- l/s and m³/h flow display options
- Intermittent function available
- Integral pressure sensor to maintain constant flow to overcome external back pressures of up to 20Pa
- Unit running time and average RH Data Logging
- Fast straightforward commissioning and set up
- Low profile aesthetic circular design

- Ideal for removing condensation which can lead to mould and ill health
- Lock out button for installers
- Humidity control suspend timer
- IPX4 rated (Ceiling mounted TP646 Kit required)
- Double insulated (requires no earth)
- Designed and manufactured in accordance with EN60335-2-80 Low Voltage Directive and the EMC Directive (Electromagnetic Compatibility)



Continuous mechanical extract ventilation - dMEV  
(Formerly system 3)



# Continuous mechanical extract ventilation - Centralised MEV

IN STOCK

An MEV or CME (Continuous Mechanical Extract Ventilation) system uses background ventilators, usually trickle ventilators fitted in windows and a centrally located continuously running mechanical extract fan with ducts running from the moisture producing areas or “wet rooms” such as kitchens and bathrooms.

The background ventilators provide the whole building ventilation and the central mechanical extract fan runs continuously to remove odours and excessive humidity. A boost facility provides rapid extraction when necessary to remove higher levels of pollutants.

The CME Q Plus range of fans are ideal for continuous extract of stale, damp and polluted air to the outside environment. With a combination of aesthetic smooth lines, unique tilted impeller, single level or circular ports it provides the ideal solution for hidden ceiling installation in flats and apartments.

Easy and straightforward to commission, the CME Q Plus will help protect against condensation and mould within a home.

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## CME2/2.1 Q Plus

- Airflow up to 137 l/s (493 m<sup>3</sup>/h) at 100 Pa
- Optional two part installation
- Performs to high levels through rectangular ports; does away with need for round to rectangular adaptors, saving cost, reducing joints and installation time
- Optional adjustable humidity sensor (between 55% RH & 85% RH) triggers boost speed proportionally
- Duct ports on one level, lessening need for unnecessary bends in ducting, saving cost, reducing joints and installation time
- Ideal for central mechanical ventilation in refurbishment of single floor dwellings where there is only space for rectangular ducting
- Fully adjustable boost overrun timer 0-30 minutes
- Can accept either 204mm x 60mm (standard) or 110mm x 54mm ducting (using provided converter)
- Original enclosure design with 204mm x 60mm spigots on one level, ideal for low profile ceiling mounting

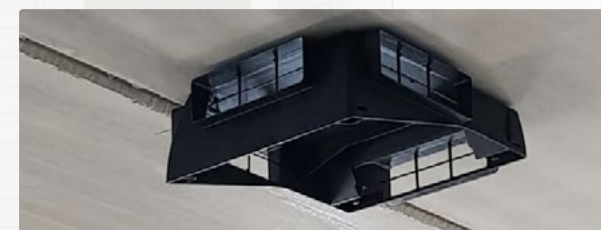


## CME3/3.1 Q Plus

- Airflow up to 121 l/s (445 m<sup>3</sup>/h) at 100 Pa
- Optional adjustable humidity sensor (between 55% RH & 85% RH) increases unit speed proportionally
- Fully adjustable boost overrun timer 0-30 minutes
- Can accept either Ø125 and/or Ø100 ducting



First fix install option



Spigot converter



## Benefits & Features

- High energy efficiency levels, via Electronically Commutated (EC) motor
- Very low power consumption/specific fan power
- Compact – unit is small and low in profile, can be fitted in airing cupboards, cupboards or loft spaces
- Easy installation due to innovative sub-assembly and unique packaging design
- Low unit noise
- Can be mounted on any plane
- Wide duty range
- Demand control ventilation ready
- Quick and easy commissioning
- Available in volt free and switch live inputs
- For use in conjunction with Titon trickle vents
- Unit can be cleaned and serviced without disturbing ducting



Continuous mechanical extract ventilation - MEV  
(Formerly system 3)

# Accessories and Ducting

## Rigid, Semi Rigid & Self-Seal Thermal Ducting

Titon offers a comprehensive range of ducting and terminals to complement our products and we advise you ensure the appropriate components are selected in accordance with Regulatory, Best Practice and SAP Q requirements.

- Titon offers; Rigid Ducting, Thermal Ducting and Semi-flexible Ducting. Each offering its own unique features to help with optimum performance
- Comprehensive advice is available from Titon on request
- The range includes Titon exclusive product for more efficient performance
- Using ducting or duct accessories from other sources may compromise system performance

## Trimbox NO<sub>2</sub> Filter®

Titon's award winning Trimbox NO<sub>2</sub> Filter® was one of the first to offer a filter that reduces Nitrogen Dioxide (NO<sub>2</sub>) which is predominantly produced by exhaust gases from diesel engines.

Due to 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>.

- 98% NO<sub>2</sub> reduction at pre filter concentrations of  $\approx 200\mu\text{g m}^{-3}$
- Low pressure drop and compact design
- Optional ePM1 55% (F7) pre filter can be installed to further improve IAQ
- Fully lined box to reduce duct bound noise and condensation
- Fitted with either 3 or 4 active carbon filters
- ePM1 55% (F7) filter reduces up to 95% of PM<sub>2.5</sub> particles
- ISO Coarse 65% (G4) filter reduces 100% of PM<sub>10</sub>/35% of PM<sub>2.5</sub> particles

## Titon FireSafe® Range - Air Bricks and Round Terminal

The original award winning Titon FireSafe® Range is a unique high flow terminal and the first designed for powered ventilation systems offering low resistance to airflow, but high resistance to fire as set out in Approved Document B (fire safety) volume 1: Dwellings, 2019 edition. Constructed from sheet steel (A1) and polyester powder coated to classification A2-s1, d0.

- Material 1.2 mm electrogalvanized sheet steel, fire class A1 'no contribution to fire'
- Designed for 204x60, 220x90 and Ø100mm ducting
- Bezelled version for use with exterior cladding instead of brickwork
- Polyester powder coating meeting EN13501-1 classification A2-s1, d0
- Performance tested to BS EN13141-2:2010
- Corrosion resistance - salt spray tested to BS EN ISO 9227:2012
- Compatible with thermal and rigid ducting



4 WEEK  
LEAD TIME

