

verve



## HRV Brochure

Heat Recovery Ventilation



# The Importance of Ventilation

In today's High Tech world, ventilation is more important than ever before, gone are the days when we relied on natural ventilation with air leakage into homes and commercial premises being acceptable.

Buildings are now being designed and built to very high standards driven by legislation and regulations. There are higher demands to reduce energy bills and to provide a healthy efficient climate for us to live and work in.

There are many health benefits of ventilation, such as reduced contamination, air-borne illnesses and dust. Indoor air quality has become a real issue with Part F of the Building Regulations dictating that buildings must now be more airtight. Ventilation helps solve major issues such as air pollutants, noise, damp, loss of productivity, health issues such as asthma and reduces carbon emissions whilst being energy efficient.

The challenge for owners, designers and installers is creating an effective, healthy and energy efficient building that meets Building Regulations. The Verve range of Heat Recovery Units can assist all in achieving this goal.



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## What is Verve?

Verve is the registered brand for Gallant's range of energy saving ventilation products; this brochure is dedicated to the Verve range of Heat Recovery Ventilation units.

Verve HRV units can be applied to residential and commercial sectors especially for offices, education, leisure, health and hotels etc. Not only will these products help you and your clients save energy, they can help reduce carbon footprint and are a solution to the latest ventilation regulations.

Verve units are everything you want from a HRV, for features and specifications see page 7 and 8. Also available is a full range of accessories and add-ons for more advanced needs or applications.





# About Verve

## Why pick a Verve?

The Verve range meets all the criteria you want from a HRV product including quality, reliability and price. The units are manufactured with both ISO9001 and ISO14001 accreditation, and are CE marked.

Verve HRV's can suit any size project or application either commercial or residential.

Verve units have a multitude of standard features including BMS facility, summer bypass, independent fan speeds and demand control ventilation options via our standard controller. The 2015 range of verve units all come with energy efficient 10 Speed DC Motors. Additional features and benefits can be found on page 4.

Verve units are extremely competitively priced but it's not all about price. Our technical team will provide all the support you require; more detailed technical information can be found by visiting the ventilation pages at [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk).



## Who are Gallant Ventilation?

Gallant Ventilation are a sister company of Gallant Airconditioning Ltd, a design and supply HVAC company based in Mansfield, Nottinghamshire. and Rochester, Kent. Our proximity to the major motorway networks allows us to offer next day delivery to all parts of the UK via the motorway network.

The directors of Gallant have between them over 100 years combined experience in the HVAC markets. Our manufacturing partner Holtop is a global leader in the production of heat recovery products. Gallant are the solus distributor for Holtop in the UK and Ireland. for more information on Gallant Airconditioning please visit: [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk)



# verve



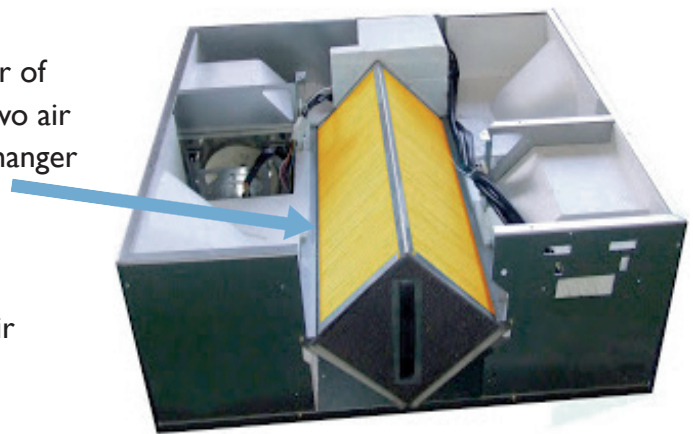
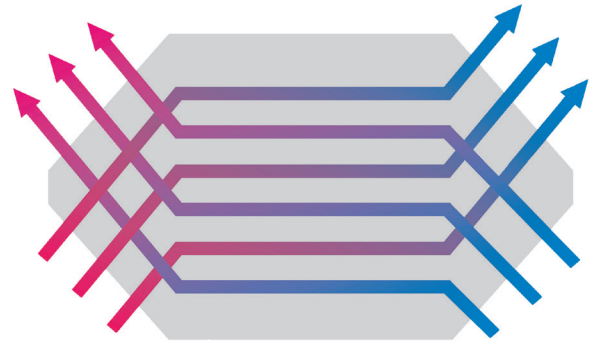
# verve Overview

## How does Verve Work?

The Verve HRV continuously recovers heat energy from the buildings extract air and transfers it to the fresh supply air stream, via a high efficiency heat exchanger.

Verve units incorporate high efficiency cross-flow paper heat exchangers, low power consumption DC fan motors, an automatic summer bypass function, G3 filters, intelligent controller and BMS connectivity.

Verve heat exchangers allow for the transfer of both latent and sensible heat energy. The two air streams are kept separated as the heat exchanger construction only allows for moisture permeability, this ensures no risk of cross contamination, or transfer of odours its construction also provides both excellent air tightness and longevity.



## Features & Benefits

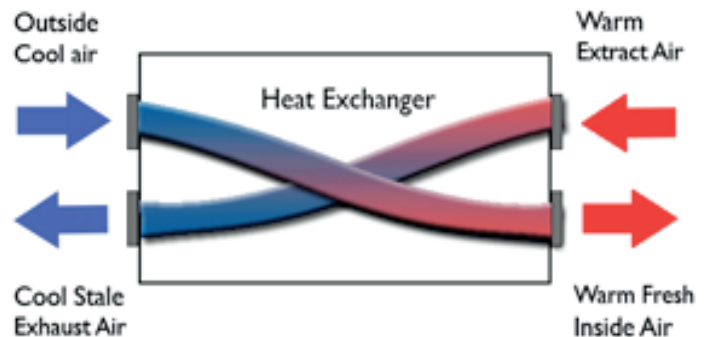
- High efficiency energy recovery
- Continuous flow of fresh air
- Air filtration and purification
- DC 10 speed fan motors
- Improved productivity
- Quiet operation
- Slim and sleek design
- CO<sub>2</sub> control capabilities
- BMS integration
- Independent fan control
- Energy saving mode
- Flexible installation
- Easy maintenance
- Accessories and optional extras

# Auto Bypass Function

## What is summer bypass?

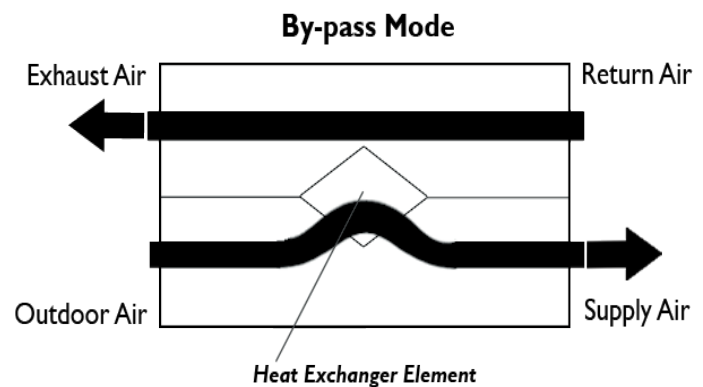
During the warmer summer months heat build up can result in uncomfortable living and working environments. Verve units continuously monitor the outside air temperature. When conditions are suitable, a bypass damper engages, diverting the return air stream around the heat exchanger.

This function allows you to directly bring in cooler outdoor fresh air to help reduce internal room temperatures. Verve summer bypass is automatic and programmable.



## What is free cooling?

Free cooling mode is used when outside temperatures are cold but there is still a requirement for cooling in the space e.g. restaurants, bars and server rooms etc. Cold air at a preset temperature can be introduced with the unit acting as a normal ventilator.



## Where can you use a Verve?

Verve unit's are suitable for both residential and commercial use. Popular application Verve units include:

- Offices
- Hotels
- Education
- Health & Leisure Centers
- Entertainment Facilities
- Bars and Restaurants
- Laboratories
- Computer Rooms



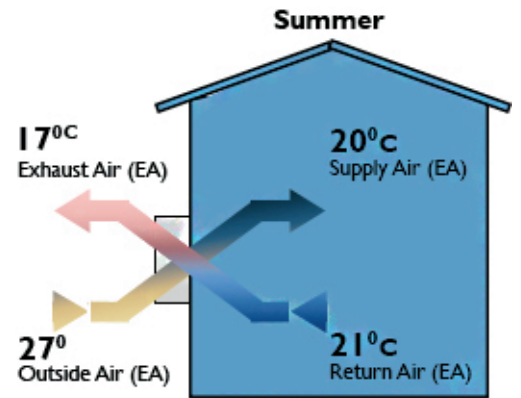
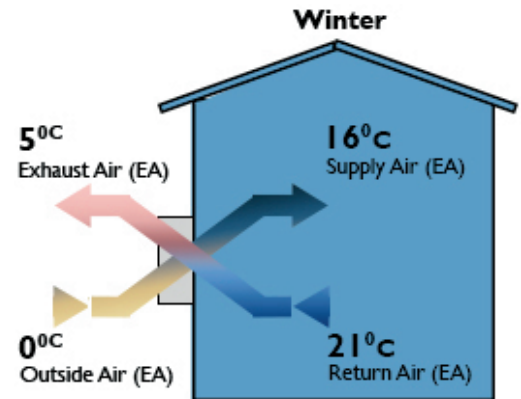
# Energy Efficiency

## How Verve saves money

Buildings often lose or waste energy through ventilation. Opening doors and windows can create uncomfortable drafts, and isn't always practical in noisy polluted urban environments. Conventional supply or extract ventilation is energy consuming as the fresh air that you introduce needs to be tempered to meet today's comfort expectations.

To supply tempered fresh air to satisfy 30 office workers could consume more than 7033 kWh per winter season, at an approximate cost of £980. Verve can cut this winter cost by up to 75% without any compromise to comfort. Plus Verve also reduces the summer cooling load on your building saving you further energy costs.

The Verve unit is an energy efficient heat recovery solution that is very quiet in operation, is easy to maintain, and offers commercial control options as standard.



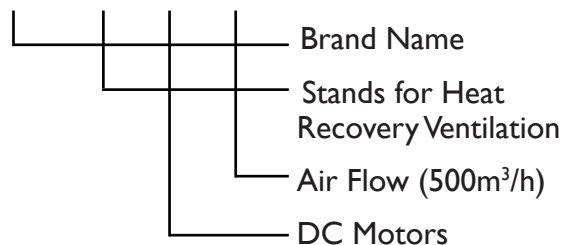
## How to order a Verve

### What's in the name?

Verve means energy and also stands for.. **V**oid **E**nergy **R**ecovery **V**entilation **E**quipment

Each unit has a code that relates to their size which is measured in air flow ( $m^3/h$ ), for example, 500  $m^3/h$ . We like to make things simple, so here is a breakdown of how Verve units are coded.

#### VERVE-HRV-DC-500



#### How to build your Verve

1. Select your unit/s
2. Choose your accessories
3. Call Gallant to order



# Specifications

Verve Model		Verve-HRV-DC-150	Verve-HRV-DC-250	Verve-HRV-DC-350	Verve-HRV-DC-500
Performance					
Airflow (m <sup>3</sup> /h)		150	250	350	500
Airflow (l/s)		43	71	100	143
Enth. Eff (%)	Heating	70	70	69	67
	Cooling	63	63	66	62
Temp. Eff (%)		75	75	75	75
Noise Db(A)		23	24	28	30
Power Supply		220V/1Ph/50Hz			
Input Power (W)		51	81	112	143
Power Cable		2x1.5mm <sup>2</sup>			
Control Cable		2x0.5mm <sup>2</sup>			
Control	Standard	Yes (7-Day Time-clock)			
	(BMS) Modbus	Yes			
Fan Type		DC Fan Motors			
Fan Speeds (Supply)		10 Speed Fan Control			
Fan Speeds (Exhaust)		10 Speed Fan Control			
Summer Bypass		Yes (Automatic with adjustable range)			
Defrost		Yes (Automatic with adjustable range)			
CO <sub>2</sub> Control		Optional controller available (On / Off control with adjustable range)			
Fan Boost Contacts		Yes (3x available connections to Volt-Free Contacts: Closed = Boost to High Speed)			
Fire Shutdown		Yes (1x available connection to Volt-Free Contact: Closed = Shutdown)			
Weight (Kg)		25	29	37	43
Size (WxHxD)		580x264x808	599x264x882	804x270x882	904x270x962
Duct Size		150	150	150	200

The specifications printed on pages 7 and 8 are an aid for selection however for more detailed technical specifications including fan curves please visit the Ventilation Verve section on our web site [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk)

Should you require any assistance with design/application when using VERVE please do not hesitate to contact us via (chat, call me, sms or e-mail).

Notes:

## Specifications continued....

Verve Model	Verve-HRV-DC-650	Verve-HRV-DC-800	Verve-HRV-DC-1000	Verve-HRV-DC-1500	Verve-HRV-DC-2000
Performance					
Airflow(m <sup>3</sup> /h)	650	800	1000	1500	2000
Airflow (l/s)	186	229	286	429	571
Enth. Eff (%)	Heating	68	71	71	71
	Cooling	62	65	65	65
Temp. Eff (%)	75	75	75	75	75
Noise Db(A)	32	35	35	38	38
Power Supply	220V/1Ph/50Hz				
Input Power (W)	205	290	305	580	610
Power Cable	2x1.5mm <sup>2</sup>				
Control Cable	2x0.5mm <sup>2</sup>				
Control	Standard	Yes (7-Day Time-clock)			
	(BMS) Modbus	Yes		No	
Fan Type	DC Fan Motors				
Fan Speeds (Supply)	10 Speed Fan Control				
Fan Speeds (Exhaust)	10 Speed Fan Control				
Summer Bypass	Yes (Automatic with adjustable range)				
Defrost	Yes (Automatic with adjustable range)				
CO <sub>2</sub> Control	Optional controller available (On / Off control with adjustable range)				
Fan Boost Contacts	Yes (3x available connections to Volt-Free Contacts: Closed = Boost to High)				
Fire Shutdown	Yes (1x available connection to Volt-Free Contact: Closed = Shutdown)				
Weight (Kg)	64	71	83	165	189
Size (WxHxD)	884x340x1222	884x388x1322	1134x388x1322	884x785x1322	1134x785x1322
Duct Size	200	250	250	650 x 280	650 x 280

## Accessories

The benefits of Verve: what they can do for you

Accessories	Description
CO <sub>2</sub> Sensor	The infrared CO <sub>2</sub> sensor detects indoor air quality by our ventilation control system. The unit runs at high speed when receiving a signal.
Blower	High static pressure, low noise centrifugal fan with casing. It has a novel design with PVC inner insulation. Including a wide range of application and an extractor fan.
Replacement EP Filter	Verve filters are low resistance with a high capacity of dust load with a Filtration Class G3
For the Standard Controller please see the next page (page 9)	

## Standard Controller

### Features

- BMS Integration - MODBUS Protocol
- Smart Alarm - For frost and defrost
- Data Memory - Restarts when power resumes
- 7 Day Timer - Two settings a day and override
- 10 Fan Speeds - Independent Airflow adjustment
- Bypass Mode - Automatic Bypass Function
- Defrosting - Auto & adjustable temperature
- Fault Detection - Error indication
- Temperature - Display for RA and OA
- Boost Function - External volt free contacts



### Accessories & Add-Ons

- CO<sub>2</sub> Concentration Control
- Electric Heater Battery

For set up and operations instructions please visit the ventilation pages at [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk) or feel free to contact our technical team via the live chat option or phone 01623 646 640.

## Multi-Functional Controller - Available soon

### Features

- Multiple Control - Up to 16 units
- BMS Integration - MODBUS Protocol
- Smart Indicator - For frost and defrost
- Data Memory - Restarts when power resumes
- 10 Fan Speeds - Independent Airflow adjustment
- Fault Detection - Error indication
- Temperature - Display for RA and OA



A Standard Controller is required to address individual units prior to installing Verdes Multi-Controller.

For more information on Multi-Function and other demand ventilation control options please feel free to contact our technical team via the live chat at [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk) or phone 01623 646 640.



## Case studies: A breath of fresh air

### Greener Buildings for the environment and our residents.

Parts of the Building Regulations, including the Code for Sustainable Homes and the EPC for Construction, aim to help reduce carbon emissions and protect the environment.

Achieving legislative standards whilst ensuring quality, reliability, energy efficiency, identifying an experienced service provider whilst making considerable budget savings is not easy....



But working with the Gallant team and their range of ventilation and air conditioning equipment ensured we achieved all our environmental, legislation and financial goals. **Ben Collard**, Energy and Environment Manager of Barchester Homes one of the largest independent care providers with 17,000 staff caring for 11,000 people in over 200 homes

Let Gallant help you maximise your goals. Visit gallants website at [www.gallantgroup.co.uk](http://www.gallantgroup.co.uk) or call on 01623 646 640.

### BE X FITNESS-SHEFFIELD



BE X FITNESS is a new and exciting experience in fitness studios, 'our customers never have to work out alone' says **Mr Dan Summerson** (Owner). Our interactive format for training improves motivation and encourages team workouts. No one has to feel alone in our gyms we help everyone get the very best health and fitness experience.

We have over 100 pieces of high tech equipment which also has the environment in mind as 70% of our equipment is energy efficient and uses no electricity. Our heating and cooling system targets to generate 40% renewable energy, thanks to Gallant Airconditioning and their Verve heat recovery units we continue to achieve our energy goals whilst providing an urban funky environment for our clients.

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Visit our website:  
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