



sustainable solutions  
**under one roof**

HEATING / HOT WATER / VENTILATION

## Ventilation and Heat Recovery



Q-Vent Range - Heat Recovery & Central Extract  
LE Range - Heat Recovery  
Home 'n'Dry Positive Input  
Passive Ventilation  
Dryflow Extract Fans



As market leaders and innovators, Johnson & Starley have increasingly specialised in domestic heating.

We helped to pioneer Warm Air Heating as the first popular domestic central heating system and became the market leaders, which we still are to this day.

Our strategy for success has been based on a strong product development program, listening to our customers and installers and utilising this feedback to complement our own technological and manufacturing capabilities.

This has ensured that product designs incorporate user-friendly controls, are easy to maintain and will help customers achieve their own energy efficiency and sustainability goals.

As a company we are committed to ever-improving energy efficiency, reducing emissions and we have adopted an environmentally friendly approach to heating and ventilation systems.

Our growth has been through careful planning and the ability to identify areas in the market requiring products and services not necessarily readily available from other suppliers.

This will continue to be our strategy for the future along with continuous development of our long-term customer partnerships and organic growth in niche markets.



## Ventilation

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Explore the house to discover what could be making you ill...



**Mould in the bathroom**

Mould releases spores and fungal metabolites which are exacerbating agents of respiratory problems, allergic rhinitis and asthma.



**drying washing inside**

Volatile organic compounds (VOCs) can irritate the lungs. Acetaldehyde and benzene, two VOCs washing gloves off, are carcinogens. Most of the VOCs can't be traced to any particular ingredient in the detergent.



**wood burning fireplaces**

Particle pollution in smoke can damage lung tissue and lead to serious respiratory problems when inhaled in high concentrations.



**carpets**

Carpets harbor dirt, dust mites, pet hair, fungus and other potentially harmful particles that can aggravate the lungs, trigger asthma attacks or send some people into allergic fits.



**cooling with gas**

Cooking on a gas hob gives off nitrogen dioxide, acrolein, formaldehyde and carbon monoxide. These have been linked to respiratory symptoms and cancer.



**paints**

Paints release volatile organic compounds that may have a range of subtle health effects if inhaled in use a long period of time.

## Why you need to ventilate.

The demand for more energy efficient homes along with modern construction and refurbishment standard have resulted in dwellings with improved insulation and energy efficiency.

With our homes more tightly sealed up than before with reduced ventilation, not only can this produce an uncomfortable living environment but can also give rise to potential health risks.

A recent YouGov survey has acknowledged that mould caused by poor ventilation is one of the key factors of poor indoor air quality and a health risk. During Winter as windows and doors are being closed, condensation and mould becomes more prominent. Mould releases allergens, irritants and toxic substances which can be dangerous to those suffering from respiratory or dermatological conditions, and can put others at risk. Other pollutants released by items around the home, such as fireplaces, scented candles, air fresheners, textiles, furniture, cleaning products, paint and detergents also add to the situation. For all of the reasons highlighted, this means the importance of installing an efficient ventilation system is paramount.

Johnson & Starley Ltd understand that the correct selection of ventilation systems must be based on a number of key factors, including detailed information on the property, such as building structure, room types and sizes, the existing or proposed heating system and the lifestyle of the occupants.

## Ventilation

Ventilation Range		Siting	EC fan motors	PCDB listed	Guarantee
Q-Vent HR160 / 260	Mechanical Ventilation Heat Recovery	Wall/loft	●	●	2 yrs*
Q-Vent HR400	Mechanical Ventilation Heat Recovery	Wall/loft	●	●	2 yrs*
LE155 / 250	Mechanical Ventilation Heat Recovery	Wall/loft	●	●	2 yrs*
Q-Vent HRC 8x3	Mechanical Ventilation Heat Recovery	Ceiling	●	✗	2 yrs*
CE180 / 300 Premier	Central Extract Ventilation	Ceiling / loft	●	●	2 yrs*
CE50	Central Extract Ventilation	Ceiling / loft	●	●	2 yrs*
Home 'n' Dry Roof XL	Positive Input Ventilation	Loft	✗	✗	5 yrs*
Home 'n' Dry Wall W	Positive Input Ventilation	Wall	✗	✗	5 yrs*
Dryflow Fans	Decentralised Extract Ventilation	Kitchen/bathroom/utility	✗	●	2 yrs*
Dryflow Fans A Range	Axial Extract Fans	Kitchen/bathroom/utility	✗	✗	2 yrs*
Dryflow Fans C Range	Centrifugal Extract Fans	Kitchen/bathroom	✗	✗	2 yrs*
Dryflow Fans S Range	Slimline Axial Extract Fans	Kitchen/bathroom/utility	✗	✗	2 yrs*

- ✓ Mechanical Ventilation with Heat Recovery
- ✓ Central Extract
- ✓ Positive Input Ventilation
- ✓ Decentralised Extract
- ✓ Axial Extract Fans
- ✓ Centrifugal Extract Fans
- ✓ Slimline Axial Extract Fans

● = Standard ○ = Optional ✗ = Not Applicable

\*Terms and conditions apply

## Mechanical Ventilation Heat Recovery

- ✔ Reduces mould and condensation
- ✔ Complies with Energy Savings Trust Best Practice
- ✔ Energy efficient EC Fan Motors
- ✔ High efficiency counter flow heat exchanger
- ✔ Integral commissioning panel
- ✔ Switching options available
- ✔ Wall or loft mounting
- ✔ BS EN ISO 9001:2008

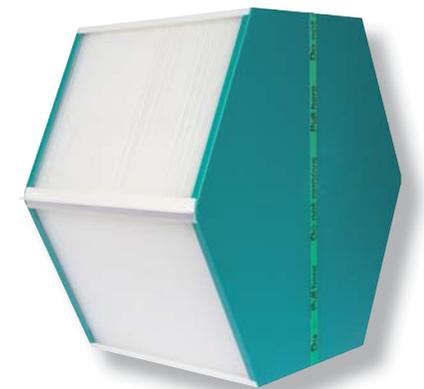
Having adequate ventilation in your home is important for good health. It removes moisture and stale air along with odours and pollutants and replaces them with fresh air.

Ventilation is usually achieved by opening windows or doors, wet rooms such as kitchens or bathrooms. Although this method works, it can also account for as much as one third of your heating energy demand, going out the window!

A Mechanical Ventilation with Heat Recovery system, could actually reduce your heating demand compared to natural ventilation.

The system works by extracting the damp warm air from 'wet' rooms such as the kitchen and bathroom, then before being expelled to the outside, the warmth in the air is transferred to the fresh incoming air by the means of a heat exchanger. The fresh warmed air is then introduced into the building.

The pre-warmed air is returned to the habitable rooms on a continual basis. The stale air as it is passed through the heat exchanger is kept separate from the fresh air so there is no chance of bacteria, fungus or other pollutants being cross contaminated.





## Q-Vent HR160 / HR260

The Q-Vent heat recovery systems incorporate a high efficiency counter flow heat exchanger with efficiencies up to 95%. Foils are formed in triangular formation so that every fresh air channel is surrounded by three exhaust air channels. This maximises the surface area over which energy can be transferred.

Incorporating a commissioning panel for use by the installer, fan speeds are infinitely variable therefore can be accurately set for normal and boost settings. Normal running and boost extract rates will be set at the commissioning panel during installation.

For boost activation and summer mode switching, a number of optional Johnson & Starley controls are available. The unit can also be wired to facilitate other boost switching i.e humidistat, lighting circuit etc.



		Maximum extract rate l/s*	Mounting	PCDB Listed	Dimensions HxWxD	Spigot size	Cooker canopy	Weight	Summer switch
<b>Q-Vent HR160 / HR260 MVHR</b>									
Q-Vent HR160	Mechanical Ventilation with Heat Recovery	66	Wall/loft	●	618 x 598 x 268	100mm /125mm	✗	23.5kg	○
Q-Vent HR260	Mechanical Ventilation with Heat Recovery	71	Wall/loft	●	618 x 598 x 268	100mm /125mm	✗	23.5kg	○

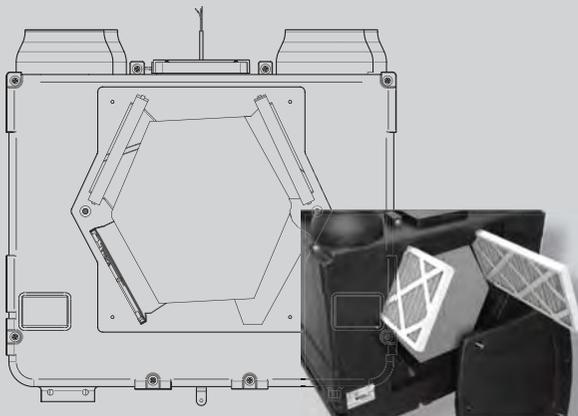
● = Standard ○ = Optional ✗ = Not Applicable

\*Flow rates shown are at 50 pascals

HEATING  HOT WATER  VENTILATION



# Q-Vent HR400



The Q-Vent HR400 is designed for medium to large dwellings. A continuously running whole house ventilation system with heat recovery the Q-Vent HR400 has a high efficiency heat exchanger, pleated filters as standard and low power consumption.

The unit is constructed of a lightweight EPP material giving high levels of insulation. A cased version is also available as an option.

By removing the need to open doors or windows to ventilate a property the HR400 will not only help eradicate mould and condensation but also help reduce energy bills as heat is not being allowed to escape from the dwelling.

The HR400 comes with an integral commissioning panel for accurate fan speed settings.



		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Outer case	Spigot size	Cooker canopy	Weight	Summer switch
<b>Q-Vent HR400 MVHR</b>										
Q-Vent HR400	Mechanical Ventilation with Heat Recovery	140	Vertical Wall/loft	●	662 x 790 x 493	O	125mm /150mm	X	17.5kg	O

\*Flow rates shown are at 50 pascals

● = Standard O = Optional X = Not Applicable



The LE 155/250 MVHR has an aluminium heat exchanger which means that the unit can be installed above a cooker and also with the optional slim line cooker canopy to capture moisture laden air and cooking smells at source. The hood comes complete with filter, lighting, boost and summer mode switching.

When installed without the cooker canopy the boost and summer mode can be controlled from a remotely sited Johnson & Starley speed controller (optional). Accurate management of supply and extract rates is essential to achieve effective and efficient ventilation of a dwelling.

The LE range of heat recovery units incorporate a commissioning panel for use by the installer. Extract rates can be accurately set for normal and boost settings.



LE155 shown with optional cooker canopy

		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Spigot size	Cooker canopy	Weight	Summer switch
<b>LE155 / LE260 MVHR</b>									
LE155	Mechanical Ventilation with Heat Recovery	64	Wall/loft	●	567 x 598 x 283	100mm /125mm	O	23.5kg	O
LE260	Mechanical Ventilation with Heat Recovery	72	Wall/loft	●	567 x 598 x 283	100mm /125mm	O	23.5KG	O

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\*Flow rates shown are at 50 pascals



# Q-Vent HRC 8 X 3 / 8 x 24



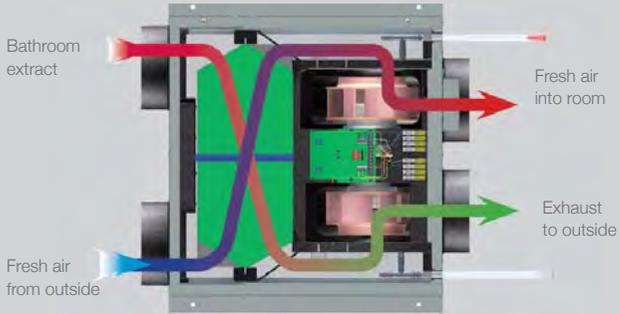
This compact heat recovery unit is suitable for smaller properties and is also ideal for use in hotel guest rooms.

It incorporates a high efficiency counterflow heat exchanger which will recover up to 95% of the stale moisture laden air. In built into the unit as standard is a PCB which allows the option of introducing a time delay before the unit goes into boost mode. Alternatively, the unit can be commissioned to incorporate a run-on mode after the boost has been turned off.

The case is constructed of aluminium/zinc coated steel. Internal faces of the casing are acoustically lined with flame retardant acoustic foam.

Up to 95% Efficient

FULLY COMPLIANT WITH PART F BUILDING REGULATIONS



		Maximum extract rate l/s	Mounting	Dimensions HxWxD	Spigot size	Weight	Summer switch
<b>Q-Vent HRC 8 x 3 - 8 x 24</b>							
Q-Vent HRC 8 x 3	Mechanical Ventilation with Heat Recovery, top opening	42	Loft	396** x 400 x 220	100mm /125mm	8.75kg	O
Q-Vent HRC 8 x 24	Mechanical Ventilation with Heat Recovery, bottom opening	42	Loft	396** x 400 x 220	100mm /125mm	8.75kg	O

\*Flow rates shown are at 50 pascals

\*\* excluding spigots add 80mm total to height

● = Standard O = Optional X = Not Applicable



## Central Extract

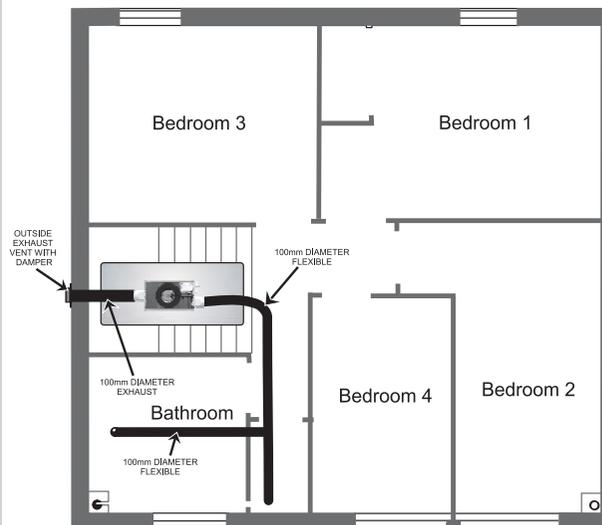
- ✓ Reduces mould and condensation
- ✓ Complies with Energy Savings Trust Best Practice
- ✓ Energy efficient EC Fan Motors
- ✓ Infinitely variable fan speeds
- ✓ Fan speed controller supplied
- ✓ Part F compliant
- ✓ Loft or ceiling mounted
- ✓ BS EN IS 9001:2008

The removal of pollutants such as moisture, carbon dioxide and fumes from scented candles, cooking or external fumes that have entered the home are all important factors in maintaining indoor air quality, and helping to create a better living environment.

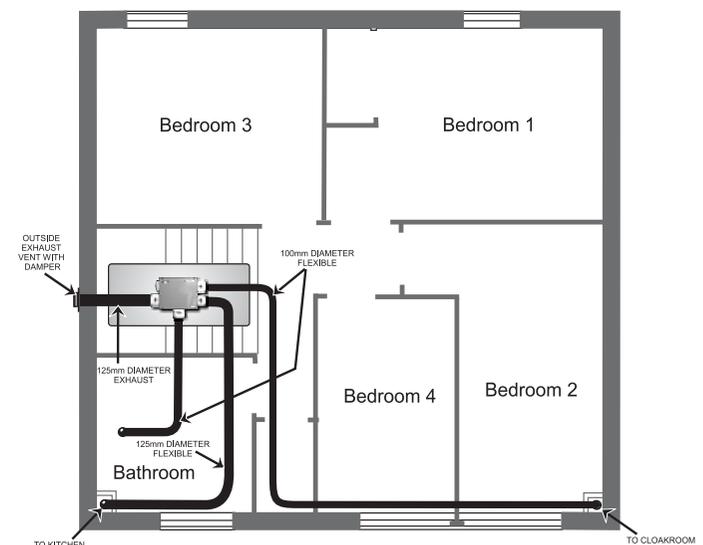
The Johnson & Starley Central Extract range is designed for the simultaneous ventilation of separate areas in the home such as kitchens, bathrooms, shower rooms, utility rooms and WC's.

With state of the art EC fan technology energy costs are minimised and environmental benefits are maximised, allowing a managed approach to ventilation and eliminating indoor air quality problems.

Typical CE180 Premier layout



Typical CE300 Premier layout





## CE180 Premier

Suitable for kitchens, bathrooms, shower rooms, utility rooms and WCs via a system of ductwork and grilles. Extracted air is filtered to protect the fan and discharged to outside via a single duct and grille.

The CE180 is fitted with 5 fan speed setting and normal, boost and additional remote boost as and when required. 100mm & 125mm spigot assemblies. All models are fitted as standard with a thermal over load protection for the fan motors.

This feature will automatically switch off the fan in the unlikely event of a fault occurring. All units come with aluminium/zinc coated steel case and acoustically lined with flame retardant acoustic foam.



		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Spigot size	EC Fans	Weight	Fan speed controller supplied
<b>CE180 Premier</b>									
CE180 Premier	Central Extract Ventilation	50	Loft / ceiling	●	386 x 236 x 133	100mm /125mm	●	5kg	●

● = Standard ○ = Optional ✗ = Not Applicable

\*Flow rates shown are at 50 pascals

HEATING  HOT WATER  VENTILATION



## CE300 Premier



Suitable for kitchens, bathrooms, shower rooms, utility rooms and WC's via a system of duct work and grilles. Extracted air is discharged to outside via a single duct and grille. The CE300 is fitted with a 5 fan speed setting and normal, boost and additional remote boost as and when required.

Connections to the unit are via 100mm and 125mm spigots. All units come with aluminium/zinc coated steel case and acoustically lined with flame retardant acoustic foam.



		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Spigot size	EC Fan Motors	Weight	Fan speed controller supplied
<b>CE300 Premier</b>									
CE300 Premier	Central Extract Ventilation	84	Ceiling / Loft	●	364 x 305 x 236	100mm /125mm	●	5kg	●

\*Flow rates shown are at 50 pascals

● = Standard O = Optional X = Not Applicable



## Q-Vent CE50 Central Extract

The Q-Vent CE50 central extract system provides mechanical ventilation from single dwellings. The unit is designed to provide low level extraction from kitchens, bathrooms, shower rooms, utility rooms and WCs to a central extract fan via a system of ductwork and grilles.

The extracted air is discharged to outside via a single duct and grille. The CE50 can be base mounted, vertically mounted or suspended. The unit is constructed of a lightweight, water resistant material and its acoustic properties ensure it is quiet in operation.



Q-Vent CE50		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Sigot size	EC Fan Motors	Weight	Fan speed controller supplied
Q-Vent CE50	Central Extract Ventilation	60	Ceiling / loft	●	221 x 264 x 268	100mm /125mm	●	2kg	O

● = Standard O = Optional X = Not Applicable

\*Flow rates shown are at 100 pascals

HEATING  HOT WATER  VENTILATION



## Positive Pressure Ventilation

- ✔ Reduces mould and condensation
- ✔ Low running costs
- ✔ Can help Asthma sufferers
- ✔ Improves indoor air quality
- ✔ Infinitely variable
- ✔ Quick and easy installation
- ✔ 5 Year guarantee

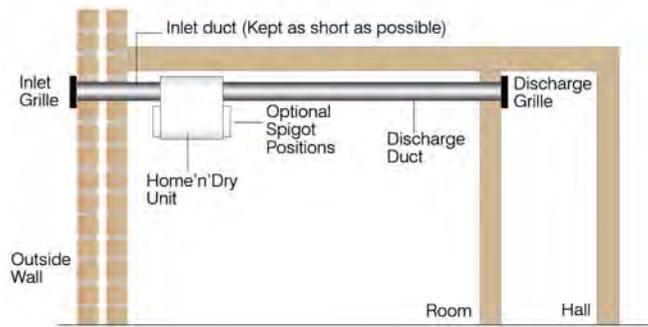
Our Home 'n' Dry system helps to eliminate surface condensation, can prevent mould growth and reduce house dust mites, creating a healthy living environment throughout the home. It can help stop streaming windows, reduce/eliminate mould, help with heat distribution and benefit asthma sufferers.

The Home 'n' Dry XL works by drawing fresh air in from the loft space and circulating it around the property via a central diffuser situated either on a landing or hallway. This creates a positive pressure and the stale moist air escapes through the fabric of the building.

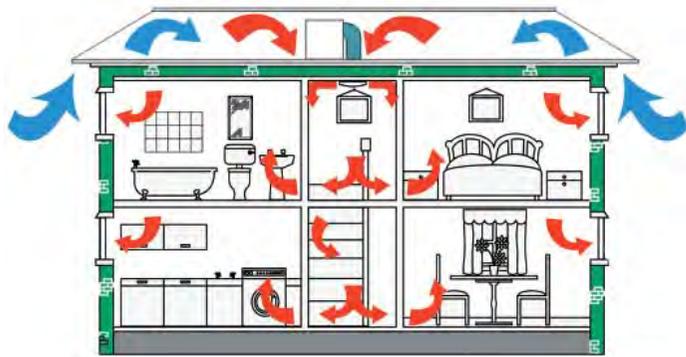
Easily fitted usually within 2 hrs and with little disruption to the household. They are ideal for retrofit projects and come with a 5 year guarantee as standard.

The Home 'n' Dry Wall is for homes where it is not practical to site the unit in a loft. Fitted on the wall in a hallway or in a suitable cupboard, the unit works in the same way as the XL but draws the fresh air in via an inlet grille with the stale air escaping through the fabric of the building.





Home 'n' Dry W Wall installation



Home 'n' Dry XL Loft installation

# Home 'n' Dry XL and Wall



Home 'n' Dry		Mounting	PCDB Listed	Dimensions HxWxD	Heater element	Type of fan	Weight	Fan speed controller supplied
Home 'n' Dry XL	Positive Pressure Ventilation	Loft.	X	330 x 330 x 224	O	DC	10kg	●
Home 'n' Dry Wall	Positive Pressure Ventilation	Wall/cupboard	X	354 x 354 x 184	O	DC	5.4kg	●

● = Standard O = Optional X = Not Applicable

HEATING HOT WATER VENTILATION



## Decentralised Extract Fans

- ✓ Low energy consumption
- ✓ Suitable for all domestic wet rooms
- ✓ Silent continuous running
- ✓ Mains and LV versions
- ✓ Wall and ceiling mounting
- ✓ PCDB listed





## Dryflow Decentralised Extract Fans

Decentralised extract ventilation requires continuous running extract fans in wet rooms such as bathroom, kitchen, utility room and WC. Not only do the E1004 and the A1003 meet this requirement but they also satisfy building regulations for this type of ventilation strategy.

Both fans are silent running, 2 speed plus a boost setting and are designed to run continuously at one of a choice of 2 lower speeds (depending upon installation requirements)

The user can then boost the fan speed to its maximum performance when required, via pull cord or external switch live.



Dryflow decentralised extract fans		Maximum extract rate l/s	Mounting	PCDB Listed	Dimensions HxWxD	Low voltage	Type of fan	Weight	Fan speed setting
E1004	Decentralised extract fan	26	Wall/ceiling	●	149 x 168 x 102	O	DC	0.75kg	3
A1003	Decentralised extract fan	25	Wall/ceiling	✗	155 x 155 x 92	O	DC	0.7kg	3

● = Standard O = Optional ✗ = Not Applicable

\*Flow rates shown are at 10 pascals

HEATING HOT WATER VENTILATION



## Extract Fans

- ✓ Low energy options
- ✓ Axial, centrifugal and slimline
- ✓ 3 model ranges
- ✓ Mains and LV versions
- ✓ Wall and ceiling mounting



## Dryflow Extract Fans

2 Year Guarantee

FULLY COMPLIANT WITH  
**PART F**  
BUILDING REGULATIONS



Dryflow extract fans are for use in kitchens, bathrooms, utility rooms and WCs. There are a range of options for just about any application. They are designed to improve the quality of the air in the home. By reducing humidity levels they can help combat condensation, damp and mould problems.

Three ranges are available, Axial fans with gravity grille shutters, Centrifugal fans with spring loaded back draught shutters as standard and the slimline range of fans.



Dryflow Extract Fans		Maximum extract rate l/s	Mounting	H=humidista P=Pullcord T=Timer	Dimensions HxWxD	Low voltage	Type of fan	Weight	Fan speed setting
A25HPTLV	Extract fan	22	Wall/ceiling	H-P-T	155 x 155 x 92	●	DC	0.75kg	3
A25TLV	Extract fan	22	Wall/ceiling	T	155 x 155 x 92	●	DC	0.7kg	3
A80P	Extract fan	81	Wall/ceiling	P	209 X 209 X 137	✗	DC	1.4KG	1
A80HPT	Extract fan	81	Wall/ceiling	H-P-T	209 X 209 X 137	✗	DC	1.4KG	2
C252SRPLV	Extract fan	25	Wall/ceiling	P	160 X 160 X 119	●	DC	2.35KG	2
C25H2PSR	Extract fan	25	Wall/ceiling	H-P	160 X 160 X 119	✗	DC	1KG	2
C25HPT	Extract fan	25	Wall/ceiling	H-P-T	160 X 160 X 119	✗	DC	1.05KG	1
C25HPT/20	Extract fan	25	Wall/ceiling	H-P-T	160 X 160 X 119	✗	DC	1.05KG	1
C25HPTLV	Extract fan	25	Wall/ceiling	H-P-T	160 X 160 X 119	●	DC	2.3KG	2
C60H2PSR	Extract fan	61	Wall/ceiling	H-P	211 X 237 X 146	✗	DC	2.05KG	2
C60HPT	Extract fan	61	Wall/ceiling	H-P-T	211 X 237 X 146	✗	DC	5KG	1
S25HT	Extract fan	25	Wall/ceiling	H-T	160 X 160 X 81	✗	DC	1KG	1

\*Flow rates shown are at 10 pascals 'A' range, 50 pascals 'C' range

## New Build Country House Gains Major Benefits with Q-Vent HR System



When having a new country house built near Ripon, the owner was looking to maximise heating efficiency whilst extracting condensation from the kitchen and bathroom areas over the four floors of the sizable building.

The Johnson & Starley Q-Vent heat recovery system not only enabled efficient extraction with very little heat loss, but also imparted major energy savings by providing the total heating requirements for the top floor of the building with the heat that would otherwise have been wasted.

Two Q-Vents HR160s were installed into the property. Vents were built into the ceiling of the kitchen, cloakrooms, and the three bathrooms as well as in the wine cellar and wash-up area.

Ducting concealed in the building carries the warm moist air up to the Q-Vents where the residue is exhausted to the outside roof area and fresh air that is drawn from outside is heated by each unit's heat exchanger allowing the saved heat to be re-used.

The elegant building is topped off with a large glass dome over the central staircase. The Johnson & Starley system takes great advantage of this by collecting any heat that gathers in the dome from the lower floors, or produced by solar energy, to be collected and passed through the Q-vent to the dry rooms.

These rates can be increased by activating the boost control, either manually or, in the case of the bathrooms, automatically by infra-red sensors when anyone enters the room.

Fresh air is then utilised, along with the recovered heat from the kitchen and bathrooms, to heat the seven rooms on the top floor of the building without the need for any additional forms of heating. This results in substantial energy savings in a building of this size.

The two Q-Vent HR160 units on this installation run automatically, giving set extraction rates for each grille between 6 litres per second in the cloakrooms and 13 litres per second over the cooking range.

Builder David Rumbold explained how important the Johnson & Starley system has been. "The property owner wanted the building to be as energy efficient as possible, which is shown by all the walls being insulated with 350mm thick hempcrete. We obviously needed to get rid of any condensation but we didn't want to lose heat through extraction"

"We couldn't find anyone to advise us or any company that made such a system until I read about the Q-Vent system in a trade journal and pointed it out to the owners. Johnson & Starley came along and advised us on the best option, then commissioned the system when it was installed. They were really good; any further help was just a phone call away. The Q-Vent has been the perfect solution and the owner is delighted with the benefits.

A summer setting is also incorporated to circulate cool filtered air directly from outside the building in the summer months.

Johnson & Starley offer accredited BPEC (British Plumbing Employers Council) Domestic Ventilation Systems courses at the company's head office Training Centre, Northampton. Each two-day course is designed to include all the requirements for installation, inspection, testing and commissioning of fixed domestic systems as set out in the Domestic Ventilation Compliance Guide 2010.

As one of the UK's leading providers of domestic home comfort solutions and training programmes, Johnson & Starley has the highest credentials and outstanding experience in delivering this type of course.

Johnson and Starley have been involved in ventilation since 1984 and have been consistently developing high quality products to serve the market.

The course is designed for plumbers, electricians, heating and ventilation engineers, providing them with the knowledge and skills to correctly install and commission domestic ventilation systems. The course is recognised by both the NICEIC and HVCA Competence Persons Scheme with day one focussing on theory and day two on good practice. The culmination is a multiple-choice examination.

Those interested in attending should obtain an application form from Johnson & Starley who will check the candidates' suitability/qualifications/experience to attend the course. The completed application is forwarded to BPEC who issue a personalised training manual to candidates via Johnson and Starley. Once the course is passed, BPEC issues a certificate, which is sent directly to the course attendee.





**Johnson & Starley Ltd**  
Rhosili Road, Brackmills,  
Northampton NN4 7LZ

**Reception**

01604 762881

[sales@johnsonandstarley.co.uk](mailto:sales@johnsonandstarley.co.uk)  
[marketing@johnsonandstarley.co.uk](mailto:marketing@johnsonandstarley.co.uk)



**Johnson & Starley Dravo Division Industrial H&V**

**Sales**

01604 707022

[dravo@johnsonandstarley.co.uk](mailto:dravo@johnsonandstarley.co.uk)

[www.dravo.co.uk](http://www.dravo.co.uk)



**In the interest of continuous development Johnson & Starley reserve the right to change specification without prior notice.**