energiSava 280

Up to 89% efficient, saving energy costs and CO_2 emissions

SAP APPENDIX Q ELIGIBLE

Whole House Heat Recovery System

About

EnviroVent have developed the ultimate solution to heat recovery ventilation to offer the cleanest system with the lowest maintenance and the lowest energy use. Achieving exceptional thermal efficiency, the unit is designed for houses or apartments with kitchen and up to seven additional extract rooms.

features & benefits

- High Performance of 0.58 W/l/s Specific Fan Power
- Fitted with Ultra Low Watt DC motor technology
- Intelligent humidity sensing (as standard)
- Frost protection (as standard)
- Remote controlled boost (as standard)
- Additional innovative control options
- 100% temperature controlled integral summer by-pass
- Outlets in a 4 on top configuration or 2 x 2
- Provides all year round whole house ventilation
- Designed to match the life-cycle of a property
- > 89% thermal efficiency
- Provides 'on demand' ventilation
- Cell does not require cleaning
- Energy Savings Trust Best Practice Performance Compliant

About the energiSava 280

EnviroVent have developed the ultimate solution to heat recovery ventilation to offer the cleanest system with the lowest maintenance and the lowest energy use.

Achieving exceptional thermal efficiency, the unit is SAP Appendix Q eligible and is designed primarily for new build properties with kitchen and up to six additional extracts.

How is it different?

Normally, to ensure a Traditional Heat Recovery Unit remains efficient it is supplied with built-in filters to protect the unit from becoming blocked up.

However, unless these filters are cleaned regularly the Heat Recovery Unit will soon become inefficient, undermining the energy efficient benefits that MVHR offers and making the journey to landfill even quicker.

To ensure a Traditional Heat Recovery Unit works efficiently over the long term, most manufacturers insist that their units must be maintained regularly by a professional tradesman. This results in high on-going long term maintenance costs and increased carbon emissions. To make matters worse the filters in the traditional MVHR Units do not protect any aspect of the ductwork. Dirty ducts circulate dirty air. They can also provide a breeding ground for a variety of microbial growth such as mould and bacteria, and will shorten the life of a Heat Recovery Unit. Dirty, contaminated ductwork is a major source of indoor air pollution. Over time contaminants build up inside unprotected ductwork, creating an ideal breeding ground for mould, bacteria, fungi and other microbes.

Nine out of ten failures in ventilation systems are caused by the build-up of dirt and dust.

The Cleanest System

The energiSava 280 is manufactured in Harrogate, UK and is designed to outlast the property that it is ventilating. Due to the innovative design the unit itself will run continuously for 5 years with no requirements for any maintenance of the unit's internal components.

The ductwork connected to the energiSava 280 is protected by filtering the air at the extract points in the property. These filters protect the ductwork on the extract side from grease, dust, debris and the build up of microbial growth such as mould and bacteria. On the intake side the in-line filter protects the system from dust and debris.

Unique Design

Due to the unique design of the counter-flow heat exchanger there is no build up of contaminants within the cell. As the airflow is laminar and not turbulent, the particles remain suspended within the airflow and are carried outside of the system.

How does it work?

Stale, moist air is extracted out of the wet rooms of a home. These include the kitchen, bathrooms, utility and en-suite rooms. This moist air is then ducted to a central unit located normally in the loft space in a house or in a utility room or cupboard in an apartment. This extracted air passes over a counter flow heat exchanger before being ducted to outside.

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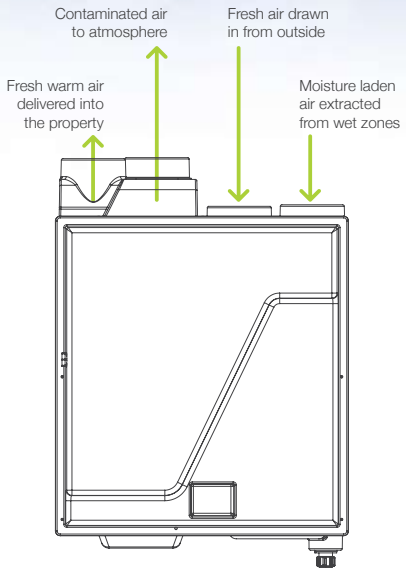
Flexibility of Installation

This flexibility of installation enables the unit to be mounted within the space envelope of a standard kitchen cupboard, in a loft space or at high level in a utility room, which makes it ideal for use with flat ducting.



Lowest Maintenance

The ductwork filters are easily removed from the extract points and are washable by the occupant which means the whole system remains clean and hygienic. More importantly, the occupants receive a long term, quiet and efficient delivery of fresh, filtered air creating a healthy indoor living environment.

Intelligent controls as standard

Incorporated within the energiSava 280 is the intelligent humidity sensing controls as standard, which constantly monitor the humidity level, meaning no user intervention is required. As humidity rises and falls, the motor speed rises and falls in direct correlation. This controls condensation quietly and efficiently, reducing the periods of time when the system operates on maximum speed, saving energy.

Integral Summer By-pass

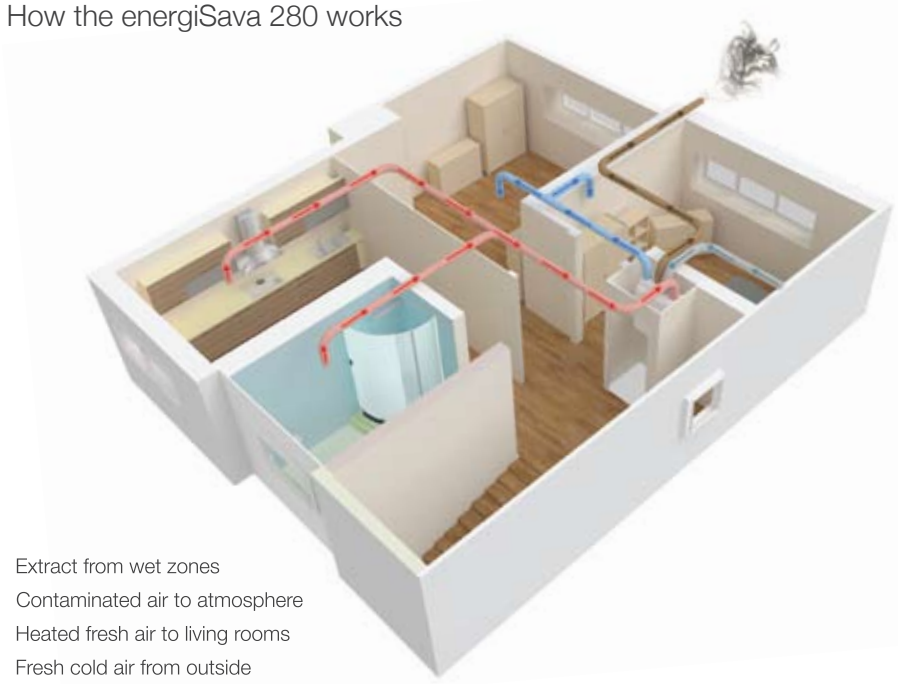
Benefitting from a temperature controlled integral summer by-pass as standard, the heat exchanger will shut off to ensure that cooler outdoor air replaces the indoor air that has been heated during the day. This air is routed through the by-pass facility and not through the heat exchanger. The summer by-pass ensures that the full benefit of perception cooling is achieved. This eliminates the requirement for open windows, providing a safer and less noisy environment.

Ideal for Houses and Apartments

The energiSava 280 is suitable for both houses and apartments. For residents living in apartments, common problems can include excessive outside noise, solar gain, high humidity levels and lack of space. By providing quiet and efficient ventilation, all of these problems can be solved with the energiSava 280 to provide an energy-efficient and convenient solution.

The energiSava 280 is supplied with a remote controlled boost switch offering ultimate control to the user.

How the energiSava 280 works



- Extract from wet zones
- Contaminated air to atmosphere
- Heated fresh air to living rooms
- Fresh cold air from outside

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SAP Appendix Q Calculations

Exhaust Terminal Configuration	Fan Speed Setting	Total Supply Flow Rate (l/s)	Total Exhaust Flow Rate (l/s)	Specific Fan Power (W/l/s)	Heat Recovery Efficiency (%)	Energy Saving Trust Best Practice Performance Compliant
Kitchen + 1 additional wet room	100% Variable	15.0	15.0	0.58	89	Yes
Kitchen + 2 additional wet rooms	100% Variable	21.0	21.0	0.59	88	Yes
Kitchen + 3 additional wet rooms	100% Variable	27.0	27.0	0.61	86	Yes
Kitchen + 4 additional wet rooms	100% Variable	33.0	33.0	0.73	85	Yes

Control Options

Intelligent as standard

Standard Control Options

- **Intelligent humidity tracking**

The integral humidity tracking helps maintain a clean environment by automatically boosting in direct correlation to humidity levels.

- **Frost protection**

This facility monitors the temperature of the heat exchange cell. When the temperature drops below 5°C the system will automatically warm the cell to prevent the formation of frost.

- **Summer by-pass**

The heat exchanger will shut off when incoming temperature is at 25°C or above so that the full benefit of perception cooling is achieved during warmer weather. This eliminates the requirement for opening windows, providing a safer and less noisy home environment.

- **Remote control boost**

The unit comes with a remote control boost for optimum user control.

Additional Control Options

The following additional control options are available. Simply add the letter to the end of the standard code below.

- **PIR Sensing**

CODE LETTER P

Automatic sensing based on presence detection.

- **Intelligent Single Room Zoning**

CODE LETTER V

Incorporating hygroscopic valves, intelligent single room zoning is achieved. Responding to changes in humidity the valves open proportionately, allowing more air to be extracted where it is required, for instance in a kitchen during cooking. This ensures that extract performance constantly matches humidity and occupancy levels to achieve optimum effectiveness with the lowest energy use.

- **Fire Alarm Shut Down**

CODE LETTER F

Particularly appropriate for student and nursing home applications, the system will shut down when a fire alarm is triggered. This prevents the airflow from the ventilation system entering the rooms.

- **Hibernation Mode**

CODE LETTER H

The system will continuously monitor the PIR activity within the home or building. When it notices a lack of activity over a certain time frame it will go into hibernation mode for energy-saving. This is particularly beneficial when residents are on holiday.

Selecting multiple auto sensing triggers or by mixing switched live inputs with auto sensing triggers can result in the unit over ventilating. Please consult EnviroVent for advice on the best control options for your requirements.

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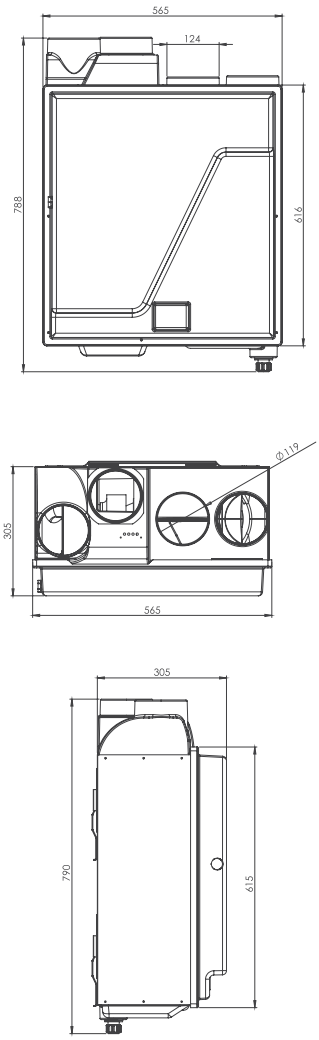
Options & Ancillaries

Round Rigid Ducting	1RD 125 X 350MM 1RD 125 X 2M
Flexible Hose Ducting	1RD FLEX 125 X 3M 1RD FLEX 125 X 6M
Flat Channel Ducting	1FD 110 X 54 1M 1FD 110 X 54 1.5M 1FD 110 X 54 2M 1FD 204 X 60 1M 1FD 204 X 60 1.5M 1FD 204 X 60 2M
Insulated Flexible Hose Ducting	1RD INS FLEX 125
Slimline Airbrick 204 x 60 (Horizontal/Vertical)	1AC HOR LOUV 1AC VER LOUV
Fixed Louvre Grille	1RD GRILL 100 1RD GRILL 125
Circular Reducers	1AD CON 125-100
Wireless Switch	SWH-W
In-line Intake Filter	IL-F125

Dimensions (mm)



Technical Specifications

Product

Whole house heat recovery ventilation system incorporating a filterless central unit, lowest maintenance requirement and wireless technology.

Application Suitability

Designed primarily for new build houses and apartments with applications of kitchen and up to four additional extracts.

Performance

	Exhaust Terminal Configuration Kitchen + Additional Wet Rooms			
	+1	+2	+3	+4
Total Supply Flow Rate (l/s)	15.0	21.0	27.0	33.0
Total Exhaust Flow Rate (l/s)	15.0	21.0	27.0	33.0
Heat Recovery Efficiency (%)	89	88	86	85
Specific Fan Power (W/l/s)	0.58	0.59	0.61	0.73

Installation

The unit shall be specified with four connections on top. The unit can be mounted within the space envelope of a standard kitchen cupboard or at high level in a utility room.

Motor

Incorporates the Ultra Low Watt DC motor technology with sealed for life ball bearings designed to operate continuously at a pre-set 'background' rate.

Fans

The unit is powered by two backward curved fans.

Heat Exchange Cell

The heat exchange cell is a high efficiency counter flow cell capable of up to 89% efficiency.

Summer By-Pass

The unit must have a 100% summer by-pass.

Servicing / Maintenance

The unit incorporates a heat exchange cell for life and does not require any maintenance within five years. The in-line filter for the supply airflow should be checked at the five year service interval. It is recommended that the filters located within the extract ceiling valves at source are checked annually and cleaned if required.

Warranty

Covered by a 5 year warranty, subject to completion of the specified maintenance.

Controls

The unit shall be fitted with wireless control boost switch, humidity vapour sensing automatic operation to provide a trickle and boost facility, commissionable to suit the application and satisfy Part F1. The unit shall also have frost protection as standard. The following control options are also available: PIR sensing, single room zoning, fire alarm shut down and hibernation mode.

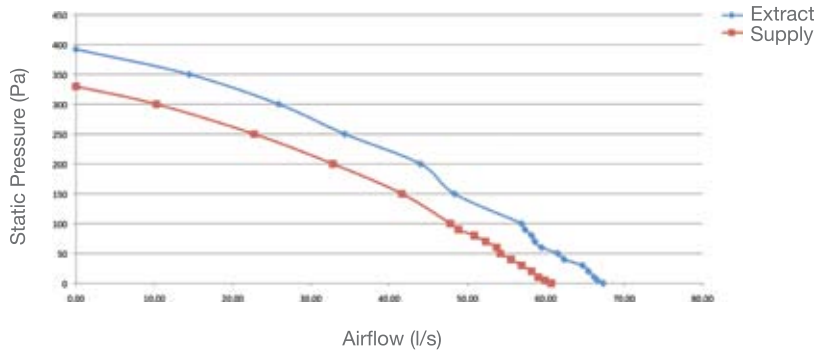
Manufacturer

Unit shall be the energiSava 280 as manufactured by EnviroVent Ltd.

Accreditation

SAP Appendix Q eligible

Performance Curve



Order Code

ESAVA280-4	Remote controlled boost switch with humidity tracker