



# SmartVent

better air = better health

## HOME VENTILATION SYSTEMS



## Product Selection

The homeowners' guide to a healthier home

# Why Ventilate?

*Over a year a family can produce as much as 3500 litres of moisture in the air inside their home.*



Ventilating our homes creates and maintains the air quality we need to ensure that a healthy indoor living environment exists every day.

Many of us are not aware that the well-intentioned energy efficiencies we introduce to our homes often negatively affect the air quality which can then compromise our health. In winter, the issue of poor air quality is compounded further in the simple act of taking every possible measure to retain the precious heat we generate in an effort to keep the cold at bay.

Insulation solutions make homes easier to heat, however, this can affect the good ventilation essential for better air quality, no matter what the age of your home.

In our New Zealand climate, poor ventilation can create the perfect environment for the ever-present moisture in the air to not just exist, but to then expose itself as the unwanted condensation, mould, mildew and proliferation of dust mites that can all damage your home ...and your health.

Homes simply need to breathe to prevent this from happening and this can be achieved by either leaving windows and doors open and simply hoping for the best, in a passive approach to ventilation, or by employing an active approach using a controlled process which continuously regulates and distributes clean filtered air to selected rooms around your home.



# Why SmartVent?

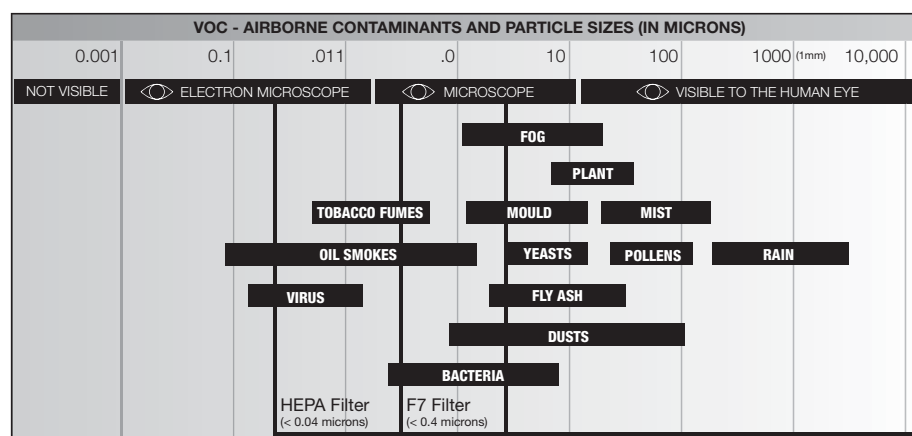


An efficient home ventilation system may well be just a low-cost product that keeps moisture build-up at bay. An effective system, however, is an investment that delivers on the quality of life promise we now expect, as the minimum, for in-home comfort. SmartVent offers a wide range of home ventilation solutions with systems designed to best suit the specific needs of any home today.

*With up to 69% of your lifetime spent in your home, a comfortable and healthy living environment is the least you should expect.*

## Filters

The filter is an important component of a ventilation system if it is to contribute towards a better indoor environment. On average, we breathe in 20-30kg of air every day, so it is essential that the atmospheric particles that can adversely affect our health, are effectively, and efficiently, filtered out.



All SmartVent systems feature high grade F7 filters\* that capture up to 90% of 0.4 microns particles such as fine pollens, dusts and allergen from the air making the air cleaner to breathe. High quality HEPA filters are also available for asthma and allergy sufferers.

\* With the exception of SmartVent Temptra



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## Positive Pressure Systems

A positive pressure system is one that draws in fresher drier air from either the roof cavity or outside. The air is filtered then distributed in, and around, the home, via ceiling diffusers, to ventilate your home.

This process positively pressurises your home creating air movement and forcing out moist, stale air and other nasties that causes condensation, mould, mildew and the build-up of VOC's in your home.

SmartVent has a positive pressure system to suit your home and lifestyle,



**Outside Air**  
Filtered drier air drawn from the roof cavity or from outside

**Exhaust Air**  
Moist, stale air forced out of the home through gaps and openings

*Like a cold drink on a hot day, moisture will form when the temperature of the air drops when it contacts colder glass surfaces. We refer to the warm air reaching dew point as condensation.*

## System Features



### **Superior fans**

Quality German EBM centrifugal fans ensure optimum ventilation airflow in and around the home.



### **Whisper quiet**

The unique acoustic insulated ducting used in all SmartVent systems ensures 'whisper quiet' air transfer and better air temperature retention.



### **First class filtration**

The high quality F7 filter captures 80 - 90% of 0.4 micron particles including dust, pollens, allergens and mould spores.



### **Looking good**

Stylish low profile diffusers, inset in your ceiling for an unobtrusive look, are fully adjustable for balanced airflow into each room.



### **Sensing the difference**

Strategically placed temperature and humidity sensors to ensure operational efficiency for Evolve2 systems.



## Overview

SmartVent Evolve2 is a centralised positive pressure system that constantly evaluates the environmental dynamics in and around your home. Four temperature and humidity sensors measure moisture content throughout the home, in the roof cavity and outside, to determine how best to deliver improved air quality without the risk of over-ventilating.

Designed for New Zealand conditions, SmartVent Evolve2 draws in fresher, drier air from the roof cavity and filters it before distributing the clean air in, and around, your home via a network of ceiling diffusers. Air from the outside can also be sourced if the + Cool/ seasonal upgrade has been installed. Whichever the air source option, the air movement created forces the moist, stale air and unwanted pollutants that cause condensation, mould, mildew and health problems, out of your home giving you better air for a healthier home.

## Seasonal Upgrades

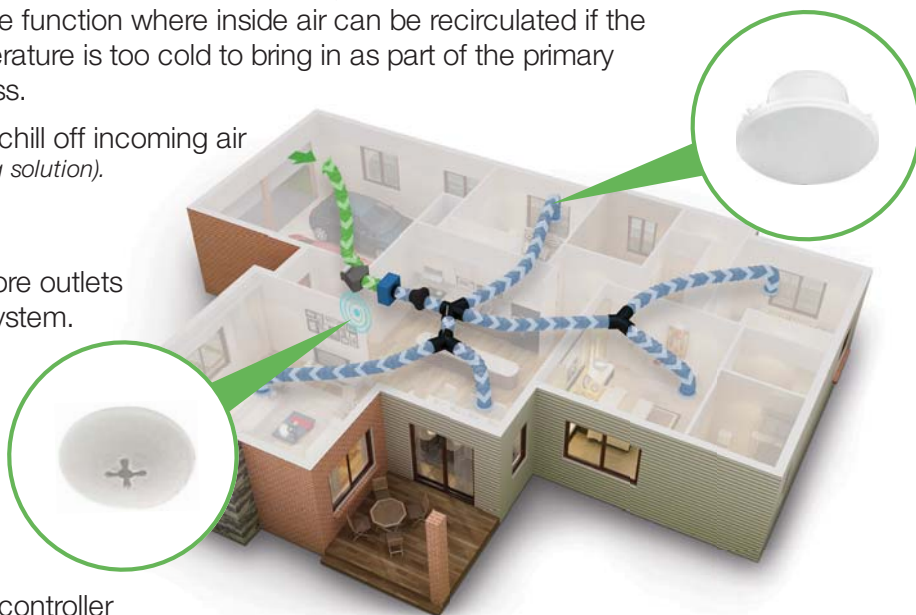
- + *Cool* For continued quality ventilation in warmer months supplying outdoor air when the roof cavity temperature exceeds that of the outside air.
- + *Heat* To draw excess heat from your heated lounge and transfer it to bedrooms. Includes a recycle function where inside air can be recirculated if the outside air temperature is too cold to bring in as part of the primary ventilation process.
- Tempering Heater* To help take the chill off incoming air (not a home heating solution).

## System Extensions

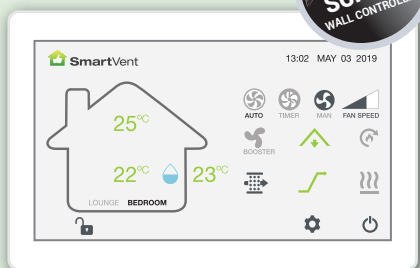
Extension kits can be used to add more outlets to your SmartVent home ventilation system.

## System Componentry

- Quality German EBM fans
- Nude, insulated and acoustic insulated ducting
- High quality F7 grade filters
- Ceiling mounted diffusers
- Wall mounted colour touch screen controller
- Four temperature and humidity sensors



## System Controller



*The touch screen controller incorporates an easy-to-use daily scheduler for specific ventilation requirements.*

*On-screen information confirms current temperatures, moisture levels and system status. Once you have selected your preferred temperature, the system operates automatically.*

*The touch screen controller can also be used for setting seasonal upgrades.*

## Control indoor climate

Reduce moisture, mould and mildew





## Overview

SmartVent Positive2 is a classic centralised positive pressure system that monitors temperature conditions in your home and at the incoming air source, to ensure that you are benefiting from improved air quality always circulating around your home. This proven SmartVent Positive technology has been used reliably in thousands of New Zealand homes over many years. Enter your preferred temperature into the easy to use, fully automated, controller and your system will ventilate your home, providing fresh clean air when you need it most.

## Seasonal Upgrades

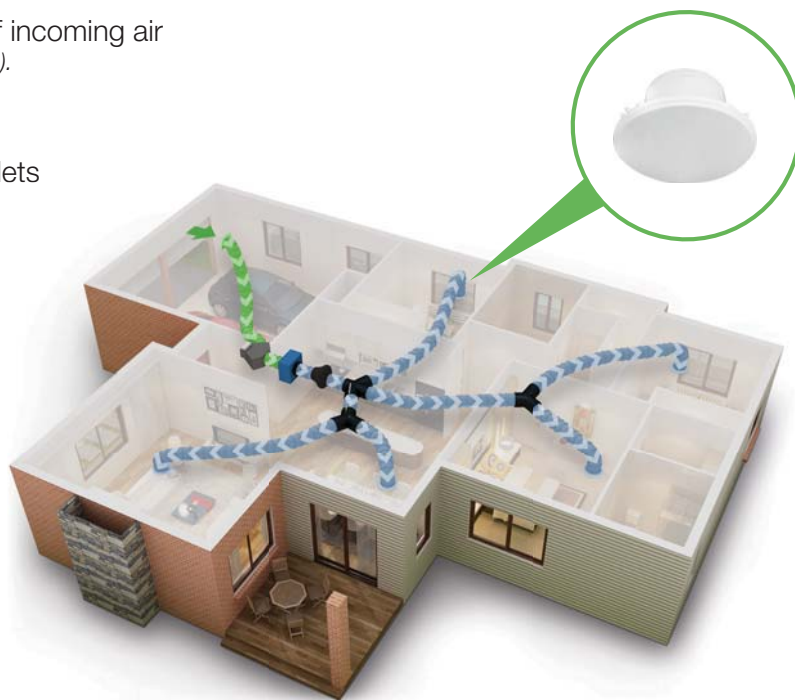
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- + *Heat* To draw excess heat from your heated lounge and transfer it to bedrooms. Includes a recycle function where inside air can be recirculated if the outside air temperature is too cold to bring in as part of the primary ventilation process.
- Tempering Heater* To help take the chill off incoming air  
(not a home heating solution).

## System Extensions

Extension kits can be used to add more outlets to your SmartVent home ventilation system.

## System Componentry

- Quality German EBM fans
- Nude, insulated and acoustic insulated ducting
- High quality F7 grade filters
- Ceiling mounted diffusers
- Wall mounted colour touch screen controller



## System Controller



*All the features you know, and expect, plus:*

- Boost mode
- Keylock
- Timer function
- Rental property lock

*Simple to navigate and set ... yet smart enough to handle a variety of smart upgrades.*

*Set your operating temperatures and the system does the rest.*

## Control condensation

Reduce moisture, mould and mildew



### Overview

SmartVent Lite is an economical ventilation system that monitors temperature conditions to ensure that you are protecting your home or rental property with quality air always circulating. SmartVent Lite has an added feature enabling a property owner to lock the controller to prevent tenants from switching the system off while still allowing them to adjust the fan speed.

### System Extensions

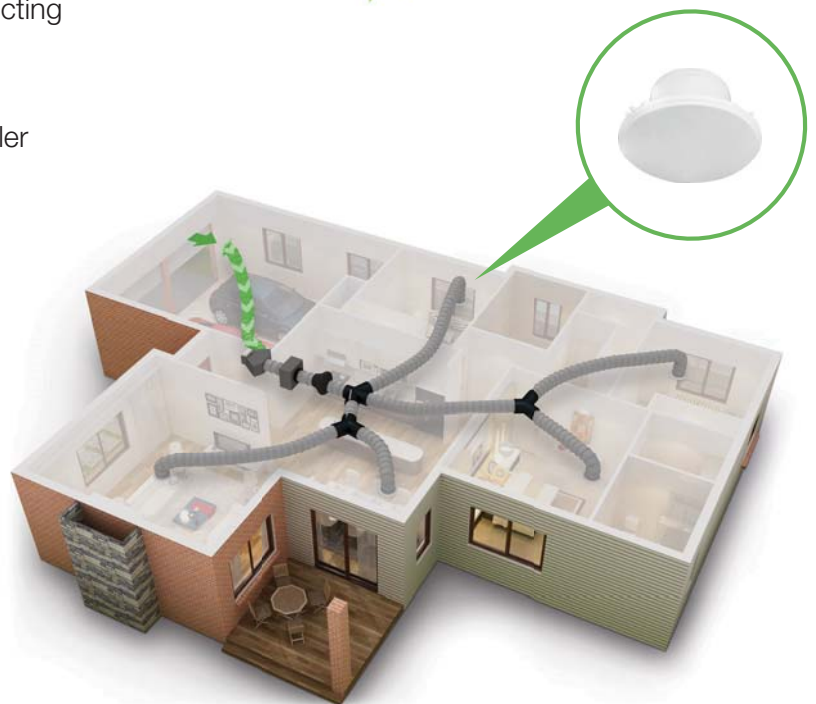
Extension kits can be used to add more outlets to your SmartVent home ventilation system.

### System Componentry

- Quality German EBM fans
- Nude, insulated and acoustic insulated ducting
- High quality F7 grade filters
- Ceiling mounted diffusers
- Wall mounted colour touch screen controller

*Almost a third of all rental homes have been found to feel damp.*

*Damp houses are much harder to heat than dry ones and health consequences are well known*



### System Controller



*The touch screen controller is easy-to-use, and once the preferred operating temperature is set, the fan speed is automatically controlled.*

*The fan speed can be manually adjusted if required.*

*SmartVent Lite has an added feature to allow property owners to lock the system preventing tenants from switching it off, while still allowing them to adjust the fan speed.*

## Protect your investment

Reduce moisture, mould and mildew



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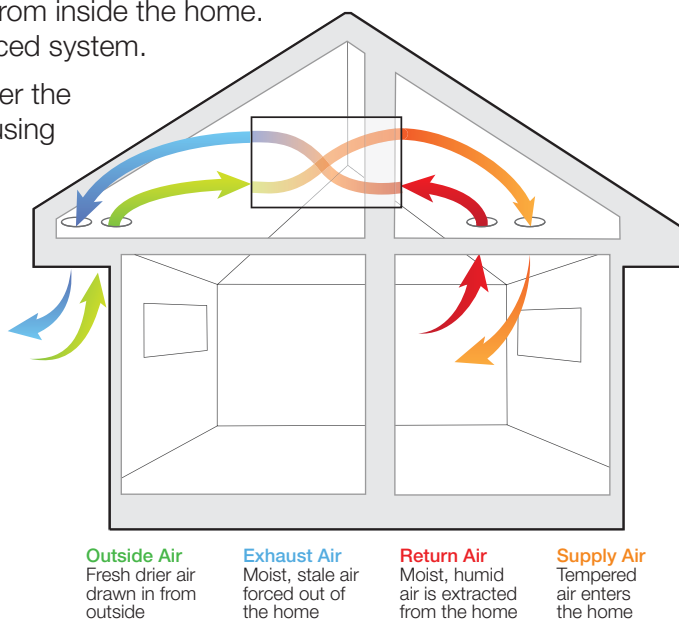
**better air = better health**

## Heat and Energy Recovery Systems

A heat or energy recovery system draws fresh, drier air into the home primarily from outside while simultaneously extracting moisture-laden, stale air from inside the home. This simultaneous process is referred to as a balanced system.

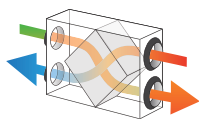
In addition to being balanced the system can recover the wasted heat produced from everyday activities by using the warmth from the extracted air to temper the incoming air. As the two airflows pass by each other, the clean air is tempered without being polluted. The clean air is then distributed in, and around, the home via ceiling diffusers giving you better air for a healthier home.

In winter, it is just so much more important that ventilation systems not only perform their basic function of extracting moist, stale air, but do it in such a way that complements the costly efforts made to warm the home in the first place. A home is not going to remain comfortable and cosy if the "efficient, low cost" ventilation option just brings in a constant flow of cold air from the outside.



*Modern homes are significantly more airtight than older homes, meaning moisture build up is more likely to happen ... and faster*

## System Features



### **Recovery mode**

Heat or energy, recovery cores and fans keep the system true to its promise to perform.



### **Whisper quiet**

The unique acoustic insulated ducting used in all SmartVent systems ensures 'whisper quiet' air transfer and better air temperature retention.



### **First class filtration**

The high quality F7 filter captures 80 - 90% of 0.4 micron particles including dust, pollens, allergens and mould spores.



### **Looking good**

Stylish low profile diffusers, inset in your ceiling for an unobtrusive look, are fully adjustable for balanced airflow into each room.



### **Sensing the difference**

Strategically placed temperature and humidity sensors to ensure operational efficiency for Synergy2 systems.





## Overview

SmartVent Balance is an energy efficient heat recovery ventilation system designed specifically for new build and low-permeability properties. It is a completely balanced heat recovery system that simultaneously draws in fresher, drier air while extracting the moist, stale air that causes condensation, mould and mildew.

Whatever the season, SmartVent Balance can improve conditions in your home with superior sensing technology, including an integral humidity sensor and core bypass for intelligent air quality control. The humidity sensor increases airflow in proportion to relative humidity levels, thus saving energy and ensuring that air quality is consistently high, while the core bypass brings in fresh air without heat recovery for the warmer months.

These systems incorporate MVHR (mechanical ventilation with heat recovery) technology which effectively uses the heat of the stale air being extracted to temper the incoming cold air to ensure that the loss of heat in the home is kept to a minimum. The warm, moist, stale air is extracted from a central point in the home, such as the hallway or wet rooms, through ducting and passed through the heat exchanger before being exhausted to the outside. Incoming fresh air is filtered and then tempered, without being polluted, via the integral counterflow heat exchanger which recovers up to **90%** of the heat energy from the home, that would otherwise be wasted, thus maximising energy efficiency.



## System Extensions

Extension kits can be used to add more outlets and extracts to your SmartVent home ventilation system.

## System Componentry

- Nude, insulated and acoustic insulated ducting
- Primary G3 and high quality F7 grade filters
- Ceiling mounted diffusers
- Wall mounted digital controller and controller on unit
- European designed and manufactured counterflow polymer core
- Backward curved impeller designed for quiet operation and energy efficient operation

### System Controller



*Integrated digital controller for simple and accurate commissioning*

*Self-diagnosis for simplified fault-finding*

*Adjustable delay ON/OFF timer*

*Programmable core bypass for summer conditions*

## Control condensation

Reduce moisture, mould and mildew  
while maximising energy efficiency

## Overview

SmartVent Synergy2 is different from most other home ventilation systems as it is a completely balanced system, capable of extracting stale, moisture-laden air from inside your home and bringing in fresh, drier air simultaneously. As an energy recovery system, the airflow of wasted heat produced from everyday activities passes by, and tempers, the airflow of the clean incoming air.

The environmental dynamics in and around your home are constantly evaluated with four temperature and humidity sensors measuring moisture content throughout the home, in the roof cavity and outside to determine how best to deliver improved air quality without the risk of over-ventilating.



## Seasonal Upgrades

- + *Flexibility* Enables system to draw air from the roof cavity.
- + *Heat* To draw excess heat from your heated lounge and transfer it to bedrooms. Includes a recycle function where inside air can be recirculated if the outside air temperature is too cold to bring in as part of the primary ventilation process.
- Tempering Heater* To help take the chill off incoming air (*not a home heating solution*).
- + *Bypass* Core bypass option for SYN190E2

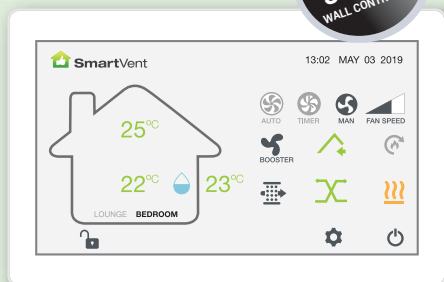
## System Extensions

Extension kits can be used to add more outlets and extracts to your SmartVent home ventilation system.

## System Componentry

- HRV or ERV core and fans
- Primary G3 filters
- Ceiling mounted diffusers
- Four temperature and humidity sensors
- Nude, insulated and acoustic insulated ducting
- High quality F7 grade filters
- Wall mounted colour touch screen controller

## System Controller



*The touch screen controller incorporates an easy-to-use daily scheduler for specific ventilation requirements.*

*On-screen information confirms current temperatures, moisture levels and system status. Once you have selected your preferred temperature, the system operates automatically.*

*The touch screen controller can also be used for setting seasonal upgrades.*

## Control indoor climate

Reduce moisture, mould and mildew



## Overview

SmartVent Tempra is a single room heat recovery unit suitable for residential retrofit and new builds, elderly care facilities, student accommodation, military barracks and apartments.

SmartVent Tempra meets the performance requirements for continuous ventilation under the NZ Building Regulations. With a 100mm diameter heat recovery outlet, these units have low energy consumption and low noise levels.

Based on a 2.4m stud and 0.35 ACH (as per NZS4303.1990), SmartVent Tempra can be set to run continuously at 6 l/s (for rooms up to 25m<sup>2</sup>) or 9 l/s (for rooms up to 37m<sup>2</sup>), boosting up to 13 l/s, recovering energy from the extracted air and returning it to the dwelling.

The unique, compact heat exchanger has a temperature efficiency up to 80%, saving energy and reducing your carbon footprint while providing quality ventilation in situations where a traditional heat recovery ventilation system is not practical.

## Heat Exchanger

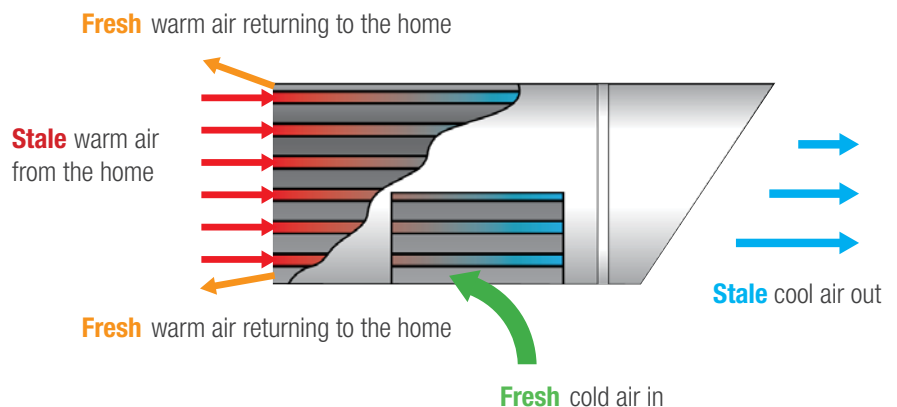


**Moist, humid air** is extracted from the home

**Extracted moist/stale** air exits the home

**Fresh drier air** supplied from outside

**Warmed supply air** enters the home



Low Noise

Low Energy Consumption



*Constant trickle ventilation (24 hours, 7 days) with airflow boost option.*

*Separated airflows so that extracted moisture extracted is not re-introduced.*

*Consistently higher heat recovery than units that use "extract-supply cycling" methods.*

*Low energy consumption.*

*Low noise.*

*Security - reduces risk of theft as windows are not required to be left open.*

*Can be switched to 'extract only' if desired.*





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## POSITIVE PRESSURE SYSTEMS



**SmartVent**  
*evolve*

**SV02E2** - 2 outlets

**SV04E2** - 4 outlets

**SV06E2** - 6 outlets



**SmartVent**  
*positive*

**SV01P2** - 1 outlet

**SV02P2** - 2 outlets

**SV04P2** - 4 outlets

**SV06P2** - 6 outlets



**SmartVent**  
*lite*

**SV01L** - 1 outlet

**SV02L** - 2 outlets

**SV04L** - 4 outlets

**SV06L** - 6 outlets

## POSITIVE PRESSURE SYSTEMS FEATURES

Feature	Evolve2	Positive2	Lite
Full system control by owner	✓	✓	✓
Rental lock	✗	✓	✓
Expandable	✓	✓	✓
Low to no-noise operation	✓	✓	✓
Fresh filtered air from roof cavity	✓	✓	✓
Fresh filtered air from outside <sup>1)</sup>	✓	✓	✗
Heat transfer from lounge to bedrooms <sup>2)</sup>	✓	✓	✗
Tempering heater <sup>3)</sup>	✓	✓	✗
Temperature and moisture sensors	✓	✗	✗
Dew point control	✓	✗	✗

1) + Cool seasonal upgrade

2) + Heat seasonal upgrade

3) Add-on kit



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## HEAT AND ENERGY RECOVERY SYSTEMS



**SmartVent**  
balance

**BAL225** - 3 supply/1 extract

**BAL405** - 5 supply/2 extracts



**SmartVent**  
synergy<sup>2</sup>

**SYN190E2** - 3 supply/1 extract

**SYN1015E2** - 3 supply/1 extract

**SYN2025E2** - 3 supply/1 extract

**SYN3035E2** - 3 supply/1 extract



**SmartVent**  
tempra

**SRHR** - 1 supply/1 extract

## HEAT AND ENERGY RECOVERY SYSTEMS FEATURES

Feature	Balance		Synergy2				Tempra
	225	405	1015E2	2025E2	3035E2	190E2	
Backward curved motor	✓	✓	✗	✗	✗	✗	✓
Expandable	✓	✓	✓	✓	✓	✓	✗
Low to no-noise operation	✓	✓	✓	✓	✓	✓	✓
Fresh filtered air from outside	✓	✓	✓	✓	✓	✓	✓ <sup>5)</sup>
Fresh filtered air from roof cavity <sup>1)</sup>	✗	✗	✓	✓	✓	✓	✗
Heat transfer from lounge to bedrooms <sup>2)</sup>	✗	✗	✓	✓	✓	✓	✗
Core bypass	✓	✓	✗	✗	✗	✓ <sup>3)</sup>	✗
Tempering heater <sup>4)</sup>	✗	✗	✓	✓	✓	✓	✗
Temperature and moisture sensors	✓	✓	✓	✓	✓	✓	✗
Dew point control	✗	✗	✓	✓	✓	✓	✗

1) + Flexibility seasonal upgrade

2) + Heat seasonal upgrade

3) + Bypass seasonal upgrade

4) Add-on kit

5) Air from outside only (no filter)

# THE CLIMATE EXPERTS

## Customer Service

SmartVent has a dedicated customer service team who can offer advice on a wide range of ventilation systems and options for your home. Call our team to book a free in-home assessment.

## In-Home Consultation

A qualified SmartVent consultant can visit you to assess your ventilation needs and specify a SmartVent system designed to create a healthy, comfortable and energy efficient home for you and your family. Consultations are provided free of charge and without obligation.

## Planning Services

If you are building or renovating your home then send our SmartVent technical team your house plans for their consideration and recommendation on the optimum system layout for your home at no charge or obligation.

## Accredited Installers

SmartVent Accredited Installers are fully qualified electricians. As knowledgeable SmartVent specialists they will install your system to the highest standards, assuring a quality installation.



All SmartVent systems are backed by a 5-year warranty (excluding filters).



**SmartVent** + **MANROSE**

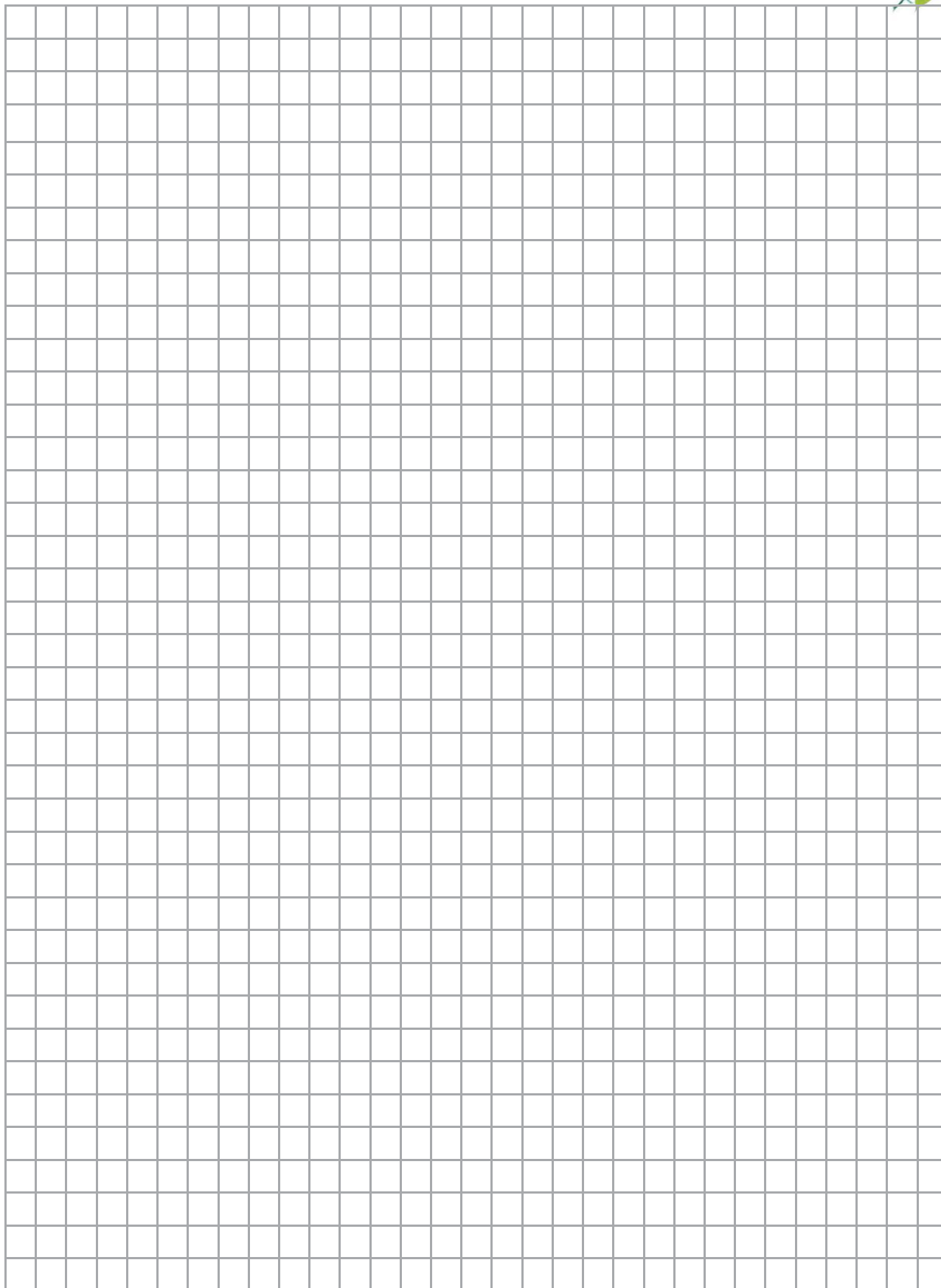
Partner your SmartVent ventilation system with a Manrose bathroom extraction fan and be sure your application meets the latest building codes and industry standards. Manrose - the market leading brand distributed by Simx Ltd.





# Map Your Installation

A useful onsite tool. Use this graph to sketch a plan of the home and intended layout.





**[www.smartvent.co.nz](http://www.smartvent.co.nz)**

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General enquiries ph: 0800 140 150

Specifications are subject to change without notice