



SmartVent

the expert's choice

HOME VENTILATION SYSTEMS

WITH AIR CONDITIONING

MEANT TO BE Together

The combination of ventilation and air conditioning offers the best outcomes for your home. While air conditioners are designed to heat or cool the air, they typically only recirculate the air inside your home. On the other hand ventilation brings in fresh air but relies on external conditions to affect temperature. **By integrating a SmartVent ventilation system with your air conditioner you achieve the best outcome for your health and comfort.**

With a ventilation system you get⁽¹⁾:



Better Air Quality



Improved Sleep



Higher Performance



Combat Sickness



Remove Contaminants & Smells



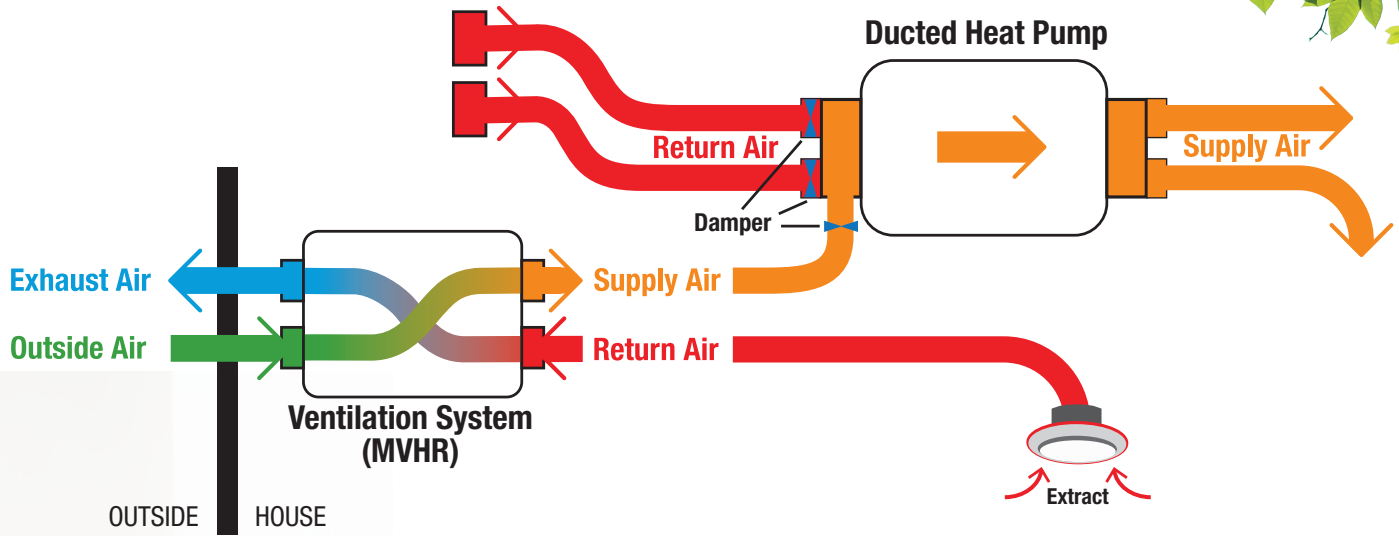
Increased Energy Efficiency⁽²⁾



While we like to let our technical expertise speak for itself; with a system for every home you can trust you'll be recommended the best solution for you.

(1) Ventilation systems introduce fresh air to your home which dilutes the concentration of CO₂, VOCs and humidity, the reduction of these provides health benefits to everyone who lives there.

(2) When compared to the energy required to heat more humid and stale air.



Understanding Home Ventilation and Air Conditioning

Often air conditioning is installed to improve both the health and the comfort of your home, and while warmer air certainly contributes to the health of a home, that's not the full story: If you're looking to dry out your home or reduce contaminants and CO₂'s, then you need a ventilation system as well.

What most people don't realise is that an air conditioner doesn't typically provide fresh air, not even through the little pipes going outside. Instead, the stale air simply cycles around inside your home getting heated or cooled in the process. Even a ducted air conditioner effectively only moves air around the house, taking it through a central location but without introducing any new air. This is where a ventilation system comes in.

Ventilation systems are specifically designed to bring fresh air into your home. Because ventilation systems don't usually have a heating or cooling system built in, the air is at the same temperature as whatever your source location is. For systems that source air from the roof space, this may be a few degrees warmer than outside due to solar gain; but for full fresh air systems (direct from outside) this can be either very warm or very cold depending on the time of year. The good thing is that outside air is typically drier than indoor air, particularly cold air. This is what provides the drying effect of a ventilation system.

While we all like a warm dry home there's one other thing a ventilation system does for you, that's improve the quality of your air. Living in our home with the windows and doors closed, we are continuously increasing the amount of CO₂ and other contaminants in the air. High concentrations of CO₂ affect your brain functions, sleep quality and general health. A filter system alone does not fix this, which is why we need to introduce fresh air.

While a Positive Pressure system is good for a lot of homes; for direct integration with a ducted air conditioner we highly recommend going with a heat recovery unit. There are two key reasons for this: first, a **heat recovery unit** helps to preserve your indoor temperature so if you're already heating or cooling the space then it saves the energy you've put in by transferring it to the incoming air. Secondly, a heat recovery unit can help with outdoor humidity as well. In summer outdoor humidity levels can be higher than indoors, if you're cooling inside, the heat recovery unit helps to pull some of the humidity out of the air before it reaches your air conditioner. Because it's harder to change the temperature of humid air, drier air is a win-win for the performance of your air conditioner.

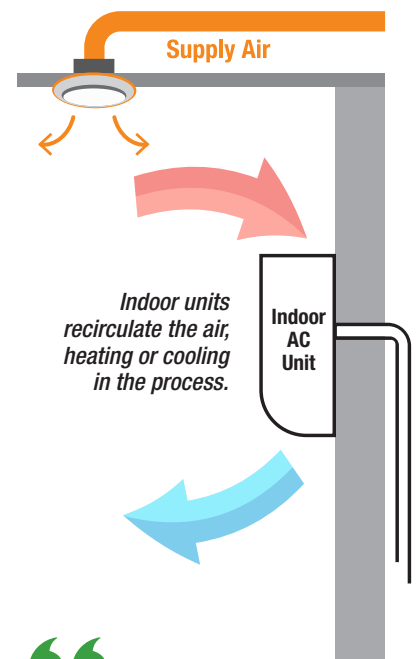
Need help choosing the right ventilation system?

SmartVent's design service is here to help:

enquiry@smartvent.co.nz



Air conditioners need to be appropriately sized for the ventilation you're providing and systems should run together to prevent short-circuiting.



Ventilation systems don't just work with ducted air conditioners. While a ducted air conditioner allows your fresh air to be immediately heated or cooled before it enters your house, fresh air can still be introduced to a space with a highwall style air conditioner. The movement of the air inside will allow the fresh air to mix with your heated or cooled air so you can still get the health and comfort benefits you desire.

