

Cleantech Invention

Two-zone-valve concept

The two-zone-valve concept of [IND](#) allows existing ventilation systems to be easily modified to increase overall efficiency. Ventilation systems offer two modes of operation, either ON or OFF. However, you don't need to ventilate the living room while you are sleeping. Nor is it necessary to ventilate the bedroom during the whole day. Smarter use of the ventilation system, due to the two-zone-valve concept, not only reduces energy usage and noise levels, but also offers the opportunity to locally increase ventilation when taking a shower or cooking a particular steamy dinner.

Energy reductions and saving money

The two-zone-valve can be easily inserted in existing ventilation systems, either during regular maintenance or when a sound muffler is added. The valve itself is installed on the division between the floors, which partitions the ventilation in two or more segments. The solution saves money and decreases noise, while offering additional fresh air where it is required. It offers a plug-and-play solution, which can be easily maintained and doesn't interfere with the existing ventilation system. It works automatically and requires no input from the resident. Whereas most of the current ventilation systems require constant input from the residents (3 fuses button).

Climate impact

To prevent noise disturbance while sleeping, people tend to shut down their ventilation system during the night. Air quality is then maintained by keeping windows open, which increases the energy use in houses equipped with balanced ventilation system with heat recovery (WTW unit).

Target market

Ventilation installers can increase their range of activities beyond new construction to include renovation and maintenance. Installers are already in these markets, but adding the two-zone-valve system increases the level of service they can offer to customers.

Maintenance companies can market the two-zone-valve to private households that require ventilation maintenance services. It is quite common to install a wireless control switch in the bathroom as part of a maintenance check. The purchasing price for installing these switches ranges between €35 – €300, depending on the type installed. To offer some perspective, currently there are around 25.000 yearly maintenance check-ups on ventilation systems in the Netherlands. These check-ups are carried out by less than 50 companies currently active in the market.

Who is Two-valve-concept looking for

Entrepreneurial minded people, with a focus on Business to Business sales and/or a technical background.

What does Two-valve-concept has to offer?

The patent application is pending: EP 2541159, 27 June 2011. Apart from the two-zone-valve concept, there are additional solutions for managing the timing, controlling the CO₂ performance, moisture control and dealing with cooking fumes (i.e small polluting particles).

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