C·L·E·A·I·R

MECHANICAL VENTILATION

Belgium EN I 2018

RENSON®
Creating healthy spaces

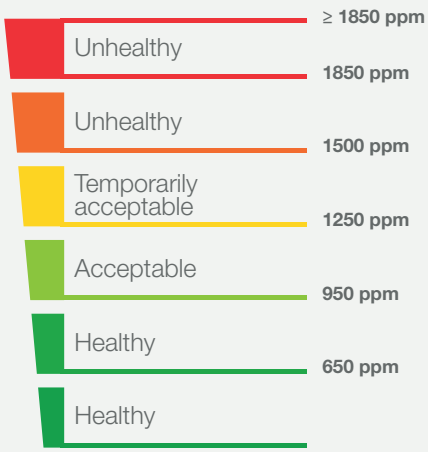
WHY VENTILATE?

Contrary to what many people think, the inside air quality is on average 10 times worse than the outdoor air quality. Cooking, showering, heating, cleaning and even breathing and sweating ensure polluted air. Too much moisture inside also leads to odours, condensation and mould, especially in well insulated or insufficiently ventilated houses. And then there is the house itself, that, with volatile organic compounds (such as formaldehyde) in the building materials used, also has a bad effect on indoor air quality.

GOOD FOR THE OCCUPANT AND THE HOME

Many people are convinced that occasionally opening the windows is enough to provide the necessary ventilation. However, the effect achieved is temporary and local. Moreover, ventilation through open windows is not controlled, resulting in costly energy loss. Open windows are also accompanied by noise nuisance and are an invitation to burglars and annoying insects.

Continuous and controlled ventilation is your only guarantee of a healthy indoor climate. The polluted inside air is discharged and continuously replaced by fresh outside air. The house will, as a result, be 'rinsed' with fresh air.



In the long run, a poor indoor climate can damage the residents' health. Respiratory problems, dry throat, eye irritation, headache, allergies, concentration loss, energy shortage or drowsiness are just some of the possible consequences. That is why it is extremely important to maintain thorough ventilation on a regular basis.

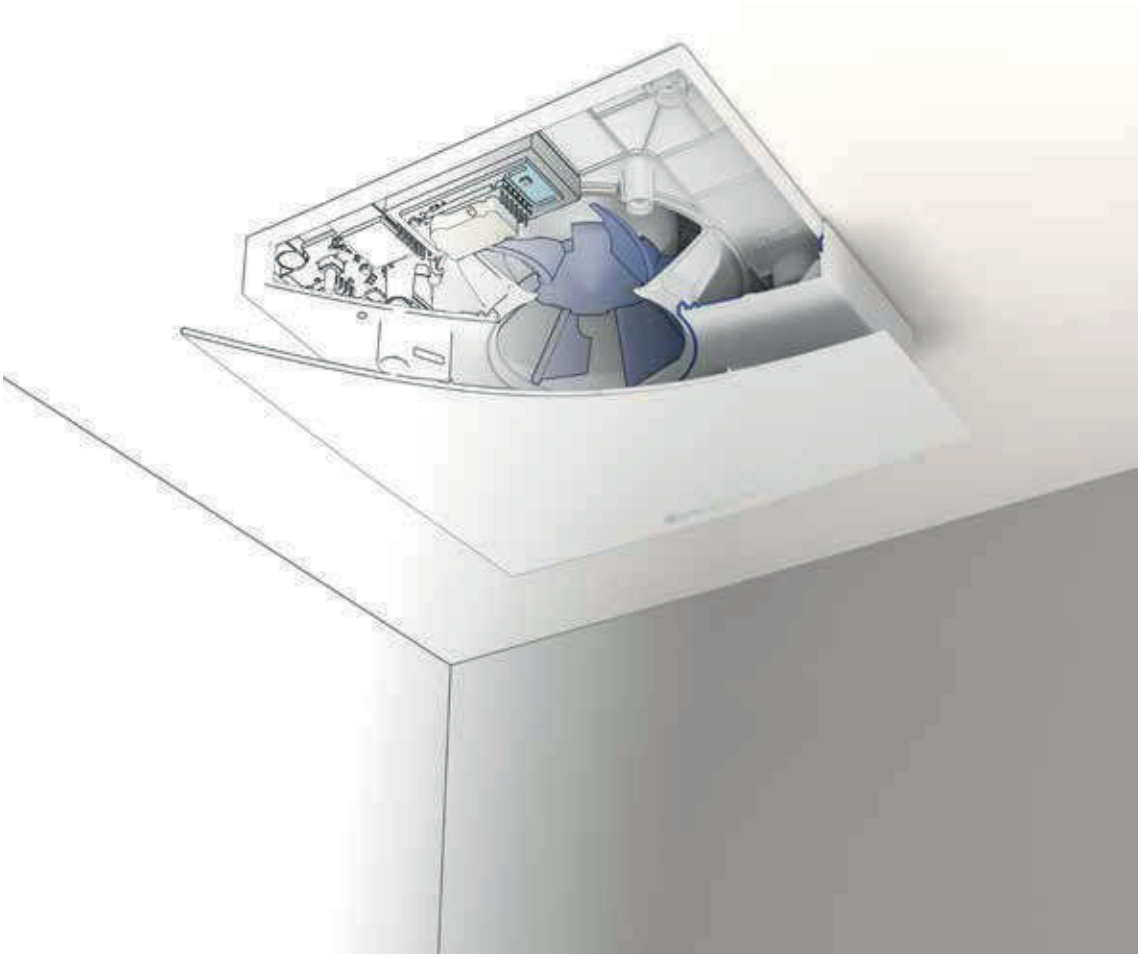
CO_2 MONITOR

The CO_2 concentration is an important indicator for good indoor air quality and can be measured with the Renson® CO_2-monitor. The air quality becomes expressed in CO_2 particles per million air particles. (ppm = parts per million).

The maximum assumed value is 1200 ppm CO_2. Above this value, people may suffer headache, drowsiness, fatigue or irritation of the mucous membranes at a CO_2 concentrations above 1000 ppm the concentration ability decreases.

WAVES®

The smartest ventilation solution for your existing home



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RENSON®
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THE IMPORTANCE OF 'WAVES'

In a world where pursuing a healthy lifestyle is gaining more and more ground, people tend to overlook that a healthy indoor climate is just as essential. This is where Waves comes into play. Waves has been conceived to best fit the needs of people whose home is not equipped with a fully-fledged ventilation system. Its small size and versatility will allow you to reap the benefits of demand controlled ventilation.

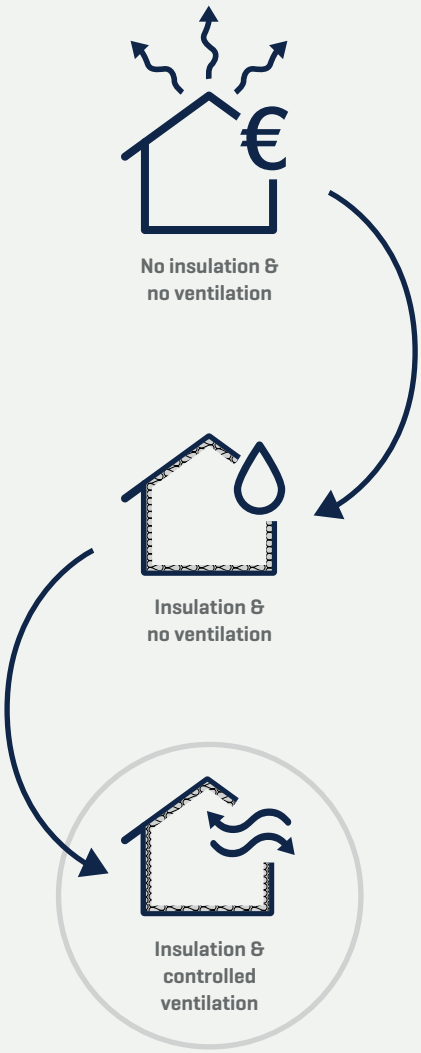
WHAT CAN VENTILATION MEAN FOR YOU?

Contrary to popular belief, the indoor air quality is on average 8 times worse than the outdoor quality. Cooking, showering, cleaning, sweating, even breathing all result in polluted air. As building become increasingly airtight, these pollutants are trapped inside the building. Rather than letting in new, fresh air, the air moves around, contributing to a poor indoor climate.

DEMAND CONTROLLED VENTILATION

It is not possible for us human beings to detect changes in air quality. For example, we cannot sense when certain air pollutants reach excessively high concentrations. Consequently, we cannot expect an occupant to be able to assess the level of ventilation required for a healthy indoor climate.

Therefore, it is important that the ventilation level should be adjusted automatically according to the actual ventilation requirements. This is achieved through intelligent sensors that can adapt to different situations at any given time. If the air in the room is of good quality, then the extraction flow rate in that room is lowered. This automatic adjustment will allow for a significant cut in energy consumption.



TYPES OF WAVES

As opposed to traditional bathroom or toilet fans (which you have to turn on and off with a switch), Waves goes one step further. With its sensors, Waves will monitor the air quality for CO_2, humidity and unpleasant odours and adjust its ventilation level accordingly. Waves is the perfect solution for those who think of renovating their bathroom, installing an additional toilet or fitting a new kitchen and who always want superior indoor air quality. Apart from the version with humidity and VOC sensor, Waves is also available with an additional CO_2 sensor. This sensor detects CO_2 in the indoor air. When CO_2 levels in adjacent rooms are too high, Waves will boost its ventilation level so that the indoor air quality starting from the bathroom, toilet or kitchen returns to normal.

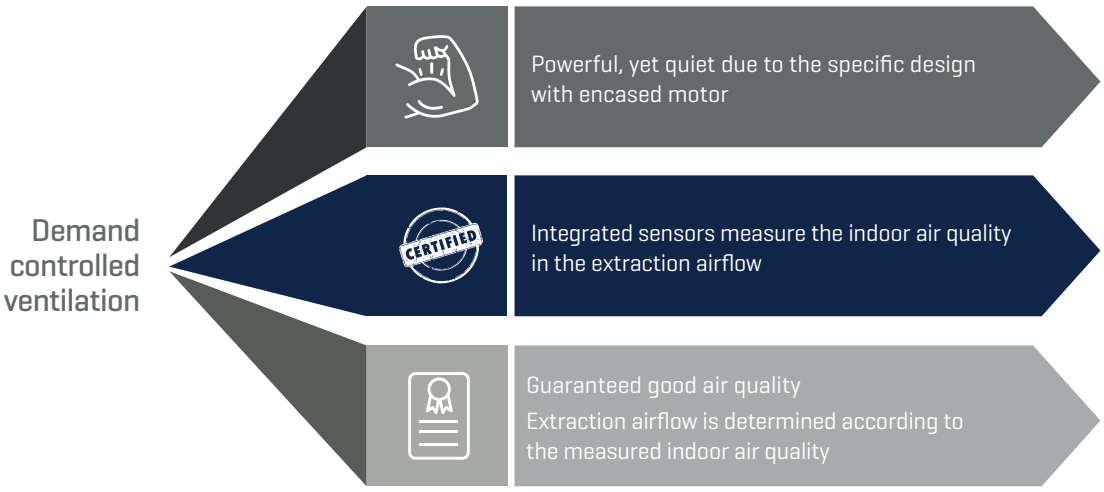
Waves

- 0 to 100 % +/- 3 %
- 10 to 75 °C +/- 0.2 °C
- Odours & chemicals

Waves CO_2

- 0 to 100 % +/- 3%
- 10 to 75 °C +/- 0.2 °C
- Odours & chemicals
- CO_2

- 220-240 V
- 802.11 b/g/n @2.4GHz



WATCH THE VIDEO HOW TO INSTALL WAVES?

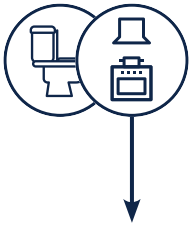
WWW.YOUTUBE.COM/ WATCH?V=YSI04SA_7HK

PRACTICAL GUIDE

WHAT SHOULD YOU BEAR IN MIND WHEN INSTALLING WAVES?

Waves has been designed to be installed in the bathroom, toilet or kitchen. While Waves detects odours and humidity, Waves CO_2 also checks CO_2 levels.

In these rooms

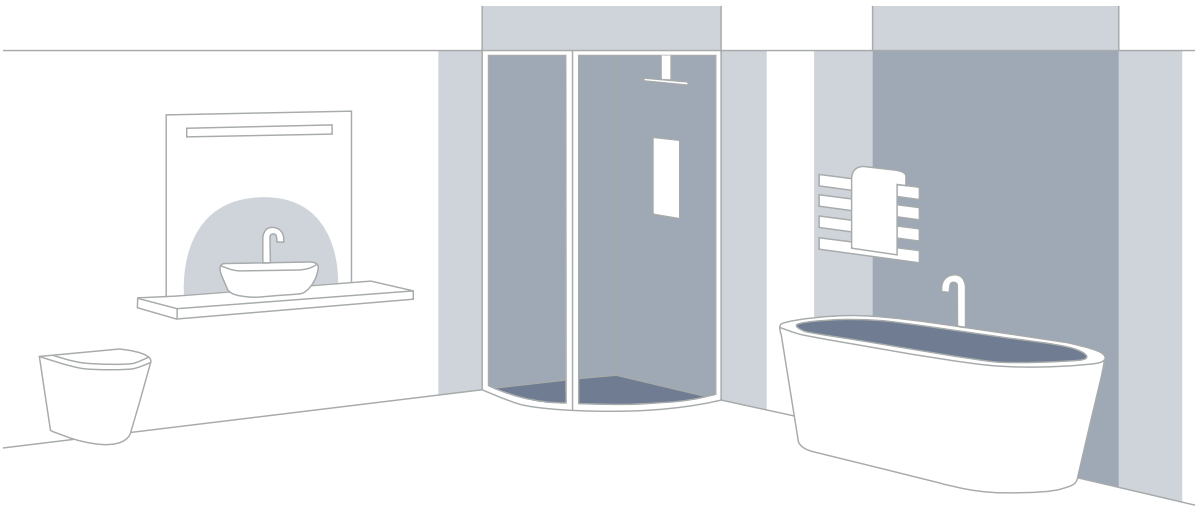


In your bathroom

IP44

We'd like to point out that Waves must be installed at least 5 cm away from the wall. This is to make sure that the front cover can always be removed.

When installing an electrical appliance in your bathroom, be aware you cannot place it wherever you please. A bathroom is divided into four zones (0 up to 3), ranked according to the risk level of water getting close or touching the electrical supply. Waves is suitable to be installed in zones 2 and 3.



RECOMMENDED AIRFLOW

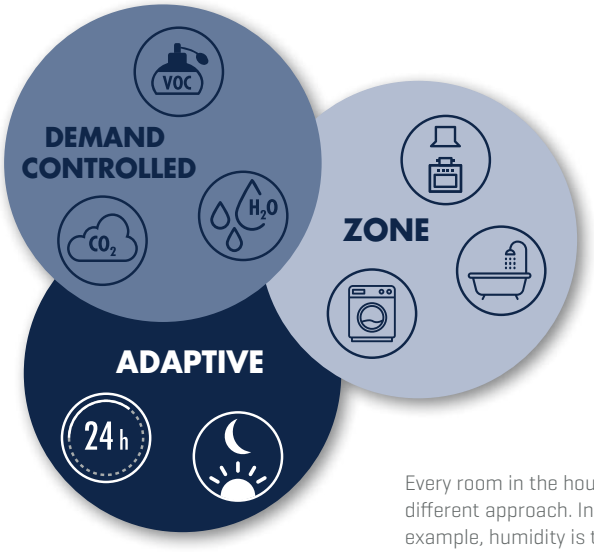
Room	Minimal airflow
Bathroom	50 m^3/h
Laundry room	
Kitchen	75 m^3/h
Toilet	25 m^3/h

Zones

- **0** Min. IP-X7, protection against immersion, up to 1 m depth
- **1** Min. IP-X5, protection against water jets
- **2** Min. IP-X4, protection against splashing of water
- **3** Min. IP-X1, protection against dripping water

SMART VENTILATION

Because people are unable to see air, we need sensors that analyse the air quality for us. A ventilation system should at least monitor and automatically adjust humidity and VOC/CO_2 levels.



Ventilation is not only smart, but also takes into account the lifestyle of the occupant and the occupancy rate of the property. By adjusting the ventilation level in accordance with these parameters, you can avoid a lot of unnecessary energy consumption (on average 30 % to 50 % compared to a non-demand controlled ventilation system).

Every room in the house requires a different approach. In the bathroom, for example, humidity is the biggest problem, while odours and CO_2 levels are the main culprits in a toilet or a bedroom. That's why it's best to regulate the ventilation level of each room separately.

In addition, Waves can refresh the air from adjacent rooms (such as bedrooms) based on the air quality of the extracted air (e.g. Waves in the bathroom).

A CLEAR VIEW ON AIR QUALITY

SMARTCONNECT

The integrated SmartConnect system bridges the gap between Waves and the digital world. It allows the user to interact with the device through the app. This app will not only help you set up Waves, but it will also monitor changes in air quality which you can always keep track of. In addition, SmartConnect will keep you informed on new features and will perform software updates automatically.

** Our app complies with the European regulation on data protection (GDPR).*

SILENT MODE

Another convenient setting is silent mode: use this to lower the flow rate during certain hours, for example at night.

DOWNLOAD THE APP

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