WAVES®

The smartest ventilation solution for your existing home

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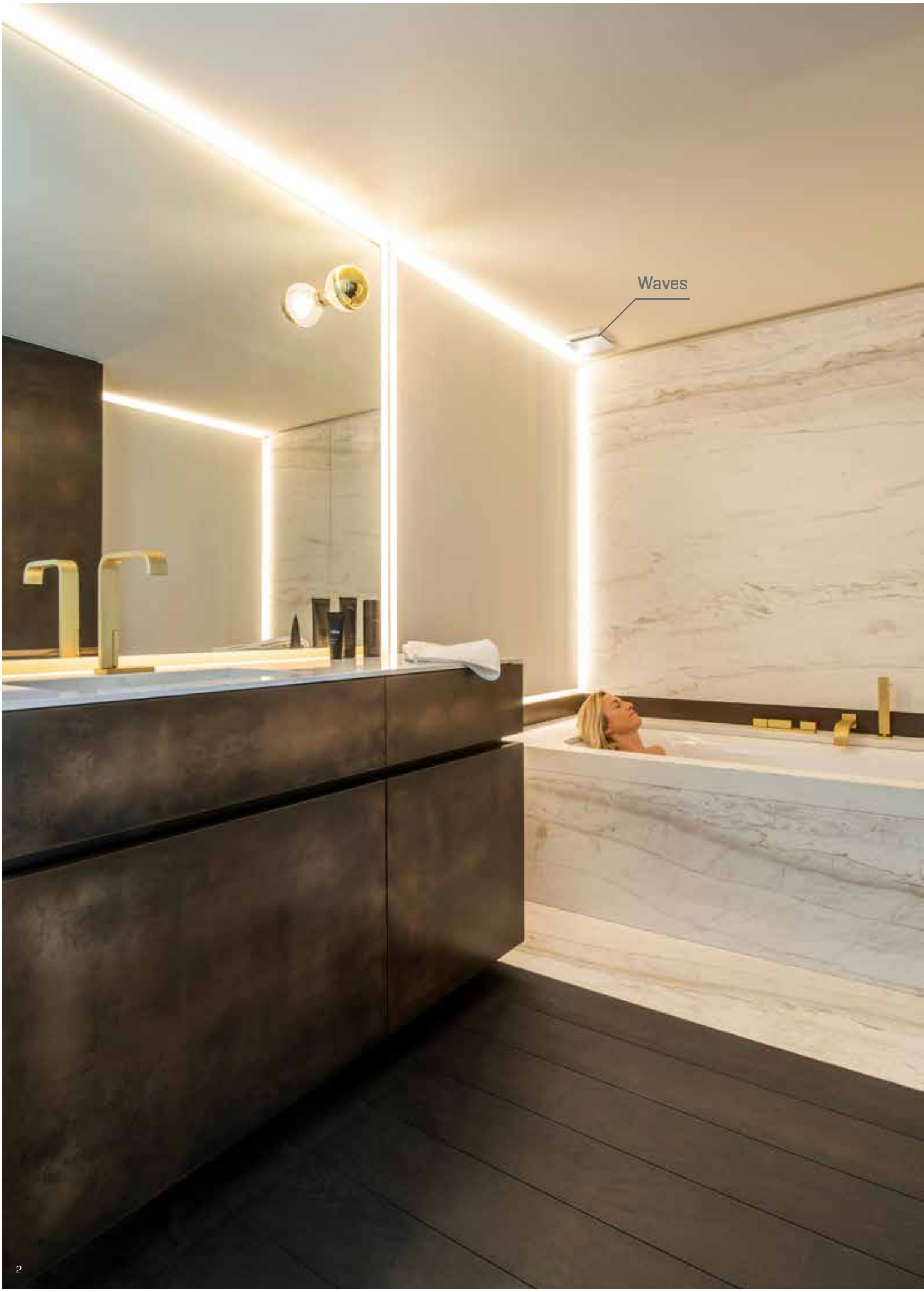
RENSON®
Creating healthy spaces


Waves

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.

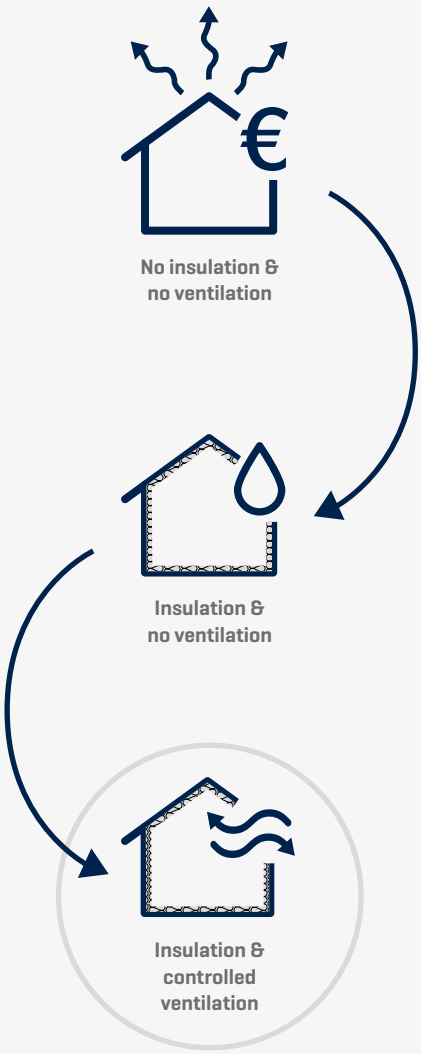
WHAT CAN VENTILATION MEAN FOR YOU?

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

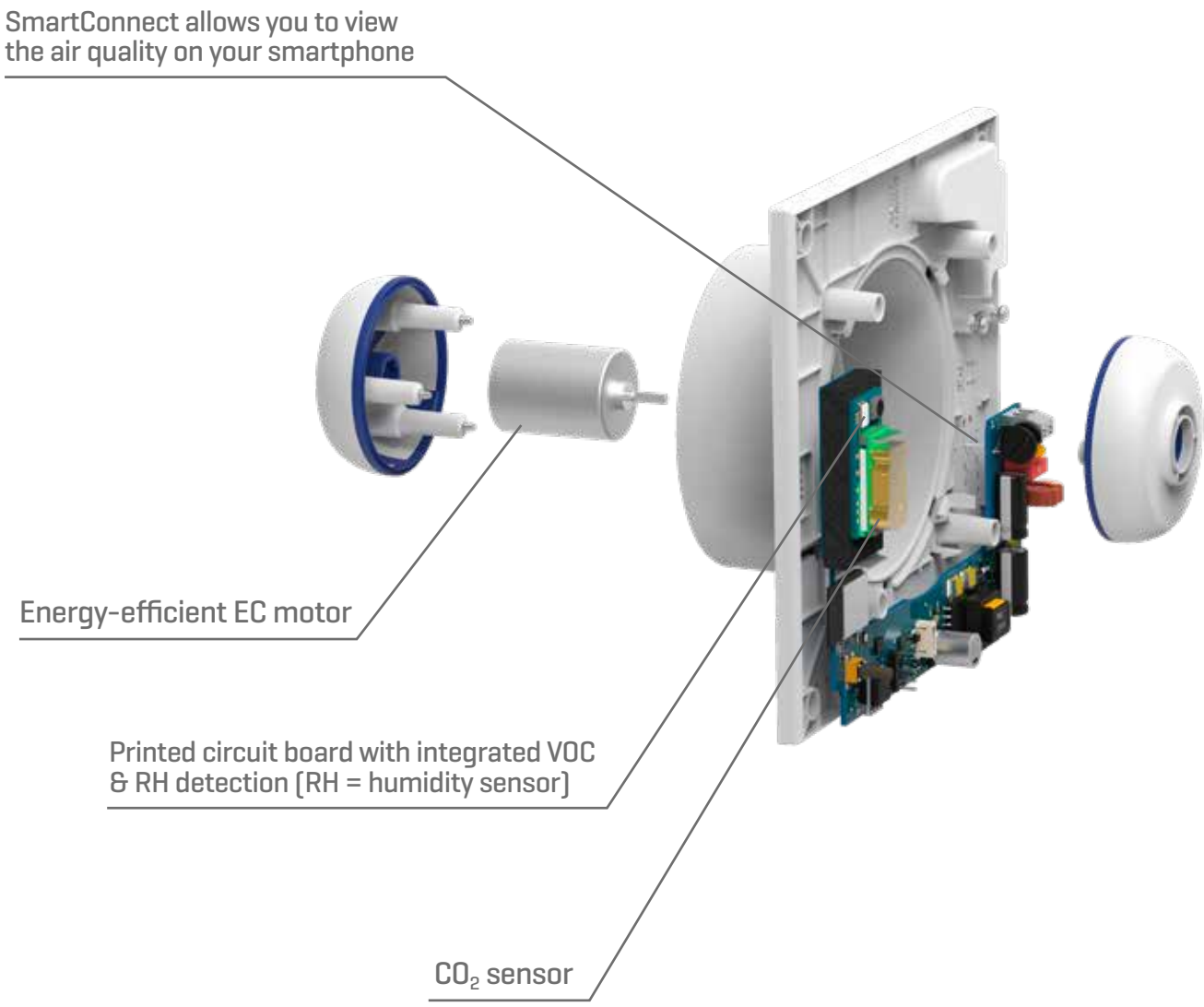
It is not possible for us human beings to detect changes in air quality. For example, we cannot sense when certain air pollutants reach excessively high concentrations. Consequently, we cannot expect an occupant to be able to assess the level of ventilation required for a healthy indoor climate.

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.



WAVES® INSIDE

Despite its compact size, Waves **performs impressively**. Both the EC fan and high-tech pressure calibration lay the foundation for its energy-efficiency. Thanks to its silent modus, everyone can enjoy a peaceful night.

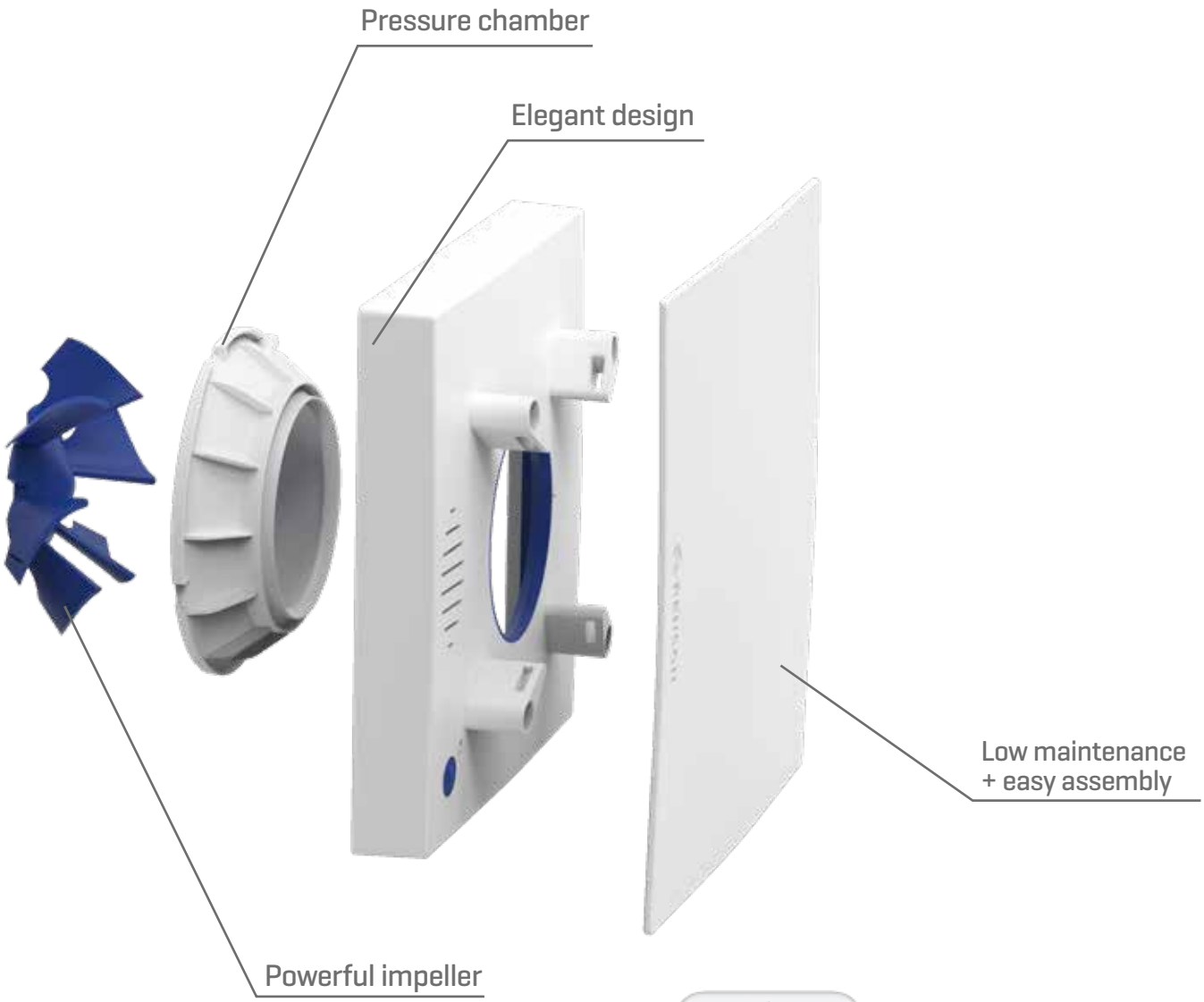


Suitable for installation in wet rooms

- ☑ Toilet
- ☑ Kitchen
- ☑ Bathroom
- ☑ Laundry room

50m³/h at 80 Pa

Because Waves calibrates itself, we can ensure that the set airflow rate is actually delivered - no matter where you install Waves.



DID YOU KNOW?

By combining multiple Waves, you can create a **ventilation system**. In addition, the separate units can be controlled with the same app.

Why monitor CO_2?

Most commonly produced by the air we exhale, CO_2 is harmless in small amounts. However, it can affect your health as levels rise above the safe threshold. Moreover, CO_2 is a very reliable indicator of the quality of air.

Why monitor VOCs?

VOCs (volatile organic compounds) are chemicals that easily evaporate at room temperature and continue to do so for a long time. VOCs include liquids such as paint, nail polish remover, fuel, cleaning products etc., but also solid materials such as new vinyl flooring or carpet. Short-term exposure can cause dizziness, drowsiness, headache, nausea etc.

Why monitor H_2O?

Humid activities such as cooking, showering, ironing, cleaning etc. increase the risk of molding. By monitoring humidity levels, molding can be avoided as much as possible. Hence, H_2O is an important indicator in keeping humidity levels in a building under control.

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.

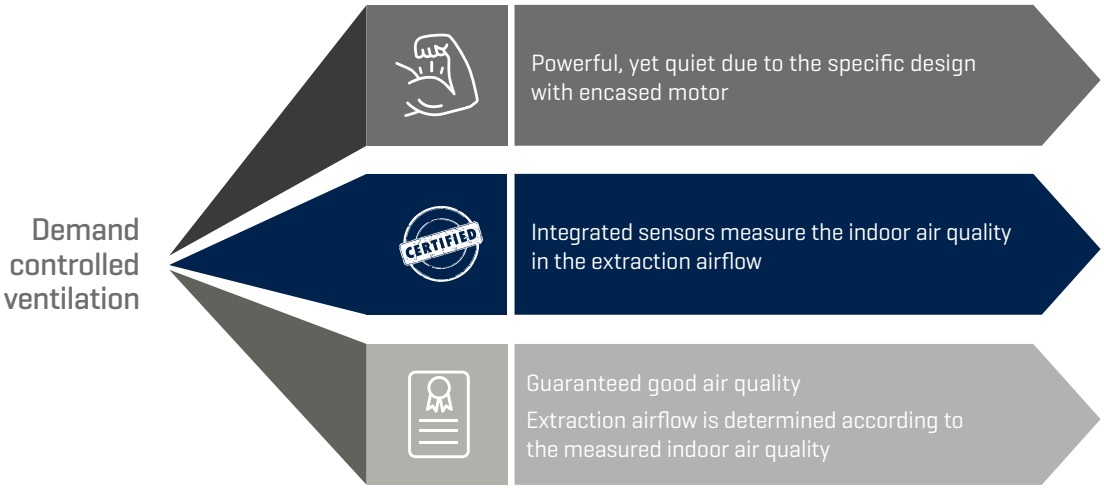
Waves

- 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?

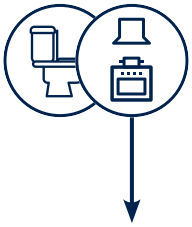
WWW.YOUTUBE.COM/ WATCH?V=YSI04SA_7HK

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

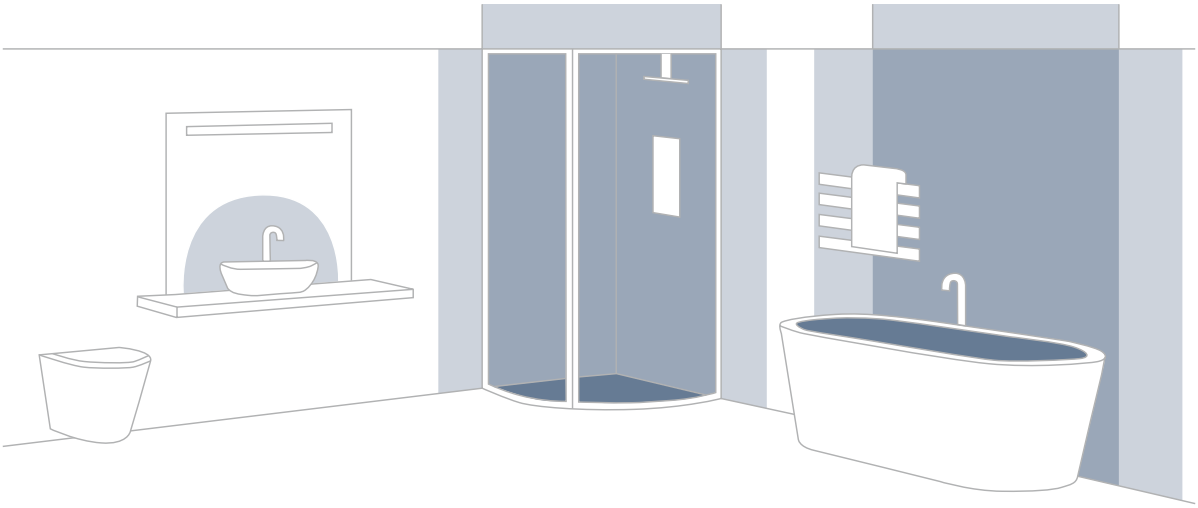


In your bathroom

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

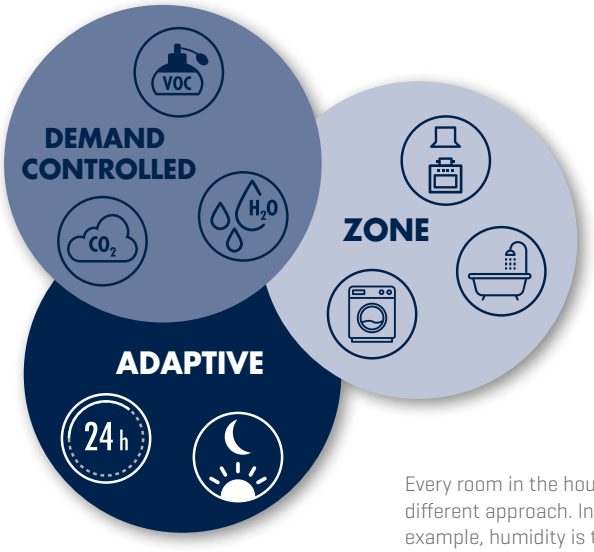
Room	Minimal airflow
Bathroom	50 m^3/h
Laundry room	
Kitchen	75 m^3/h
Toilet	25 m^3/h

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

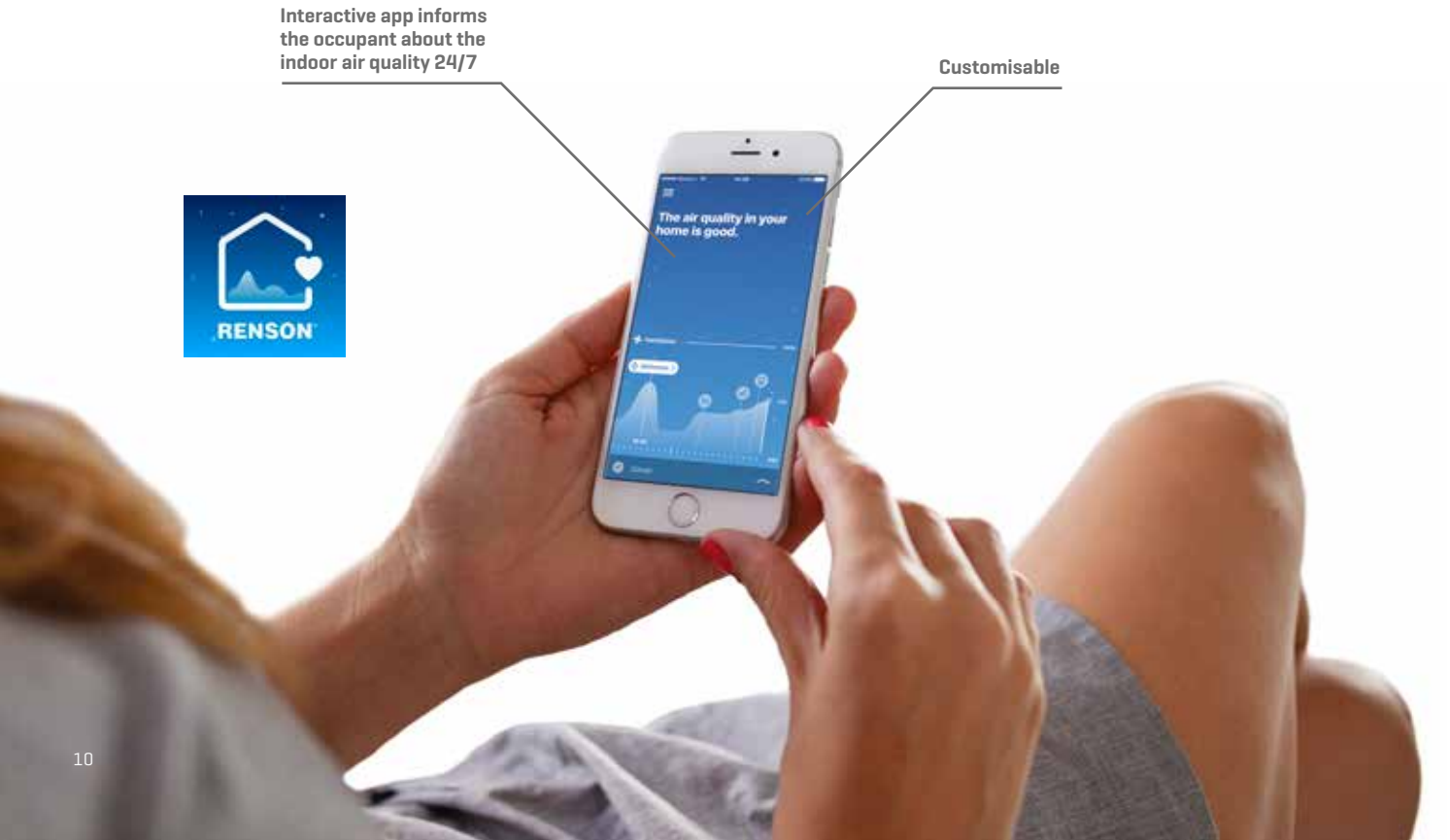
Because people are unable to see air, we need sensors that analyse the air quality for us. A ventilation system should at least monitor and automatically adjust humidity and VOC/CO_2 levels.



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).

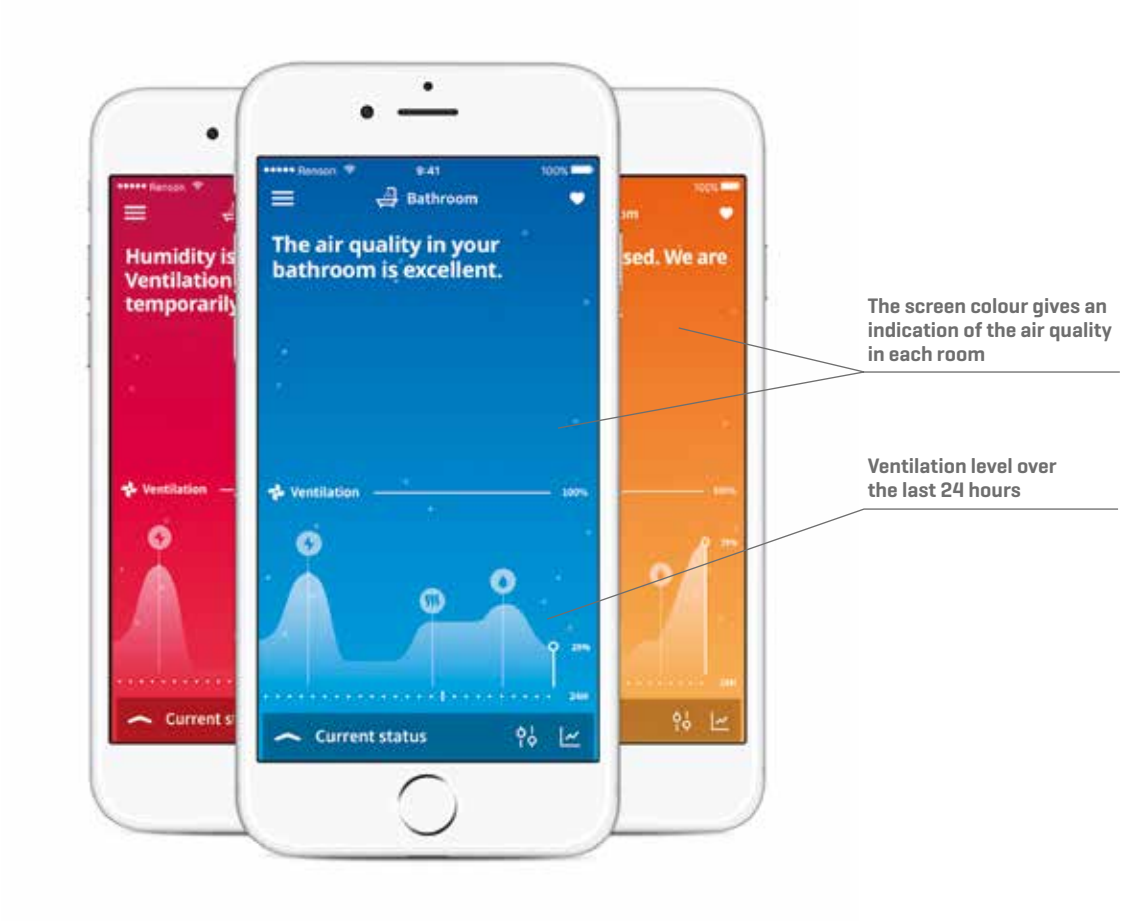


A CLEAR VIEW ON AIR QUALITY

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).*



DOWNLOAD THE APP

GET IT ON Google Play

Download on the App Store

WWW.MY-LIO.EU

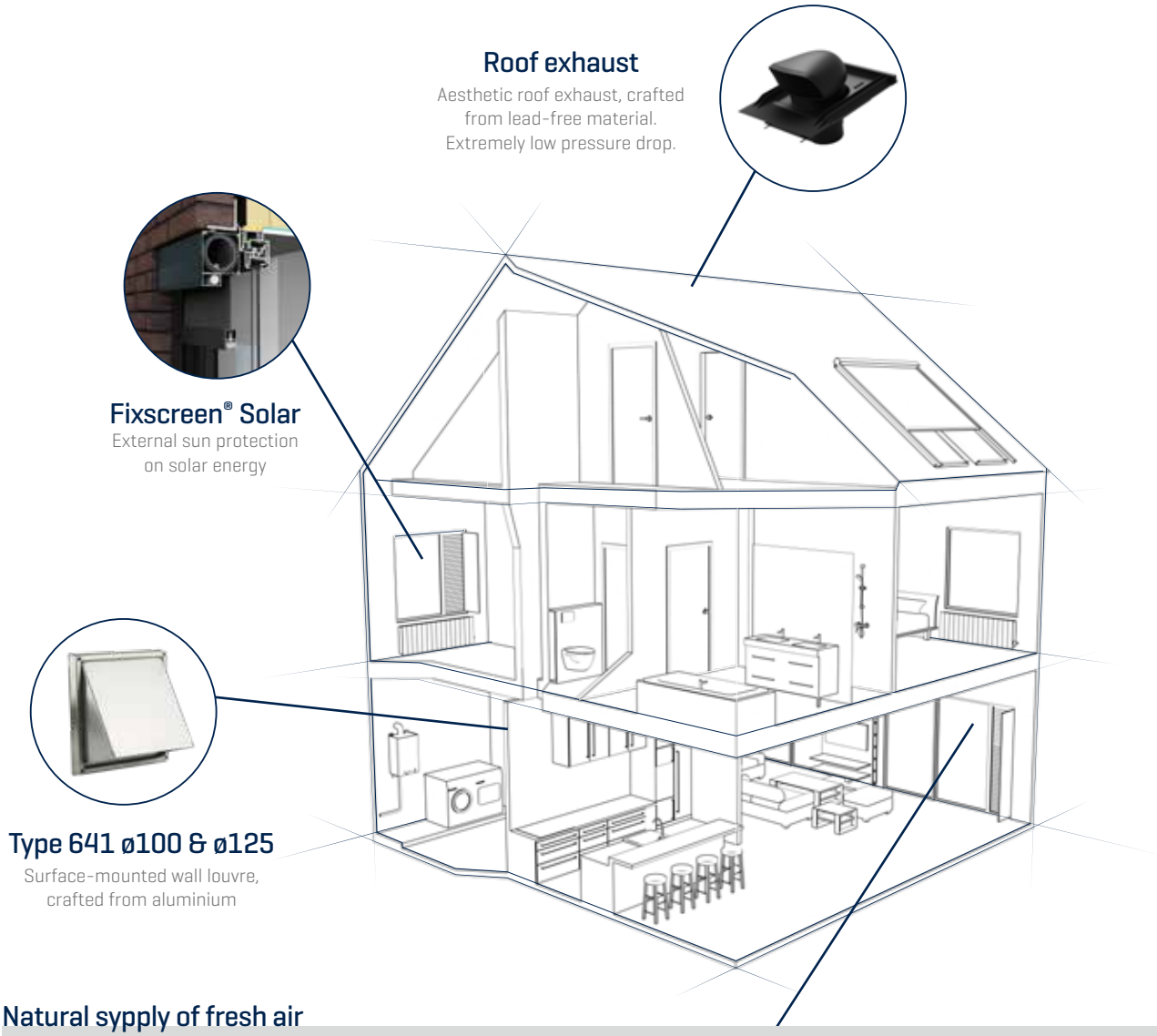
SILENT MODE

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


Waves

COMPLETE YOUR INSTALLATION

At Renson®, we are committed to offering our customers the whole package. We're convinced that the following products will complement to your renovation:



Roof exhaust
Aesthetic roof exhaust, crafted from lead-free material. Extremely low pressure drop.

Fixscreen® Solar
External sun protection on solar energy

Type 641 ø100 & ø125
Surface-mounted wall louvre, crafted from aluminium

Natural sypply of fresh air

Invisivent®
Discrete, overframe ventilator with self-regulating flap.
Window replacement

THM90
Flush window vent with self-regulating flap.
Glass replacement

AR75
Window vent with self-regulating flap.
Glass replacement

Transivent
Ventilator with self-regulating flap for installation in **roller shutters.**

Sonoslot®
Acoustic slotvent kit with self-regulating flap.

More info :

WWW.RENSON.EU/GD-GB/PRODUCTS/VENTILATION/WINDOW-VENTILATION

INSTALLATION COMFORT

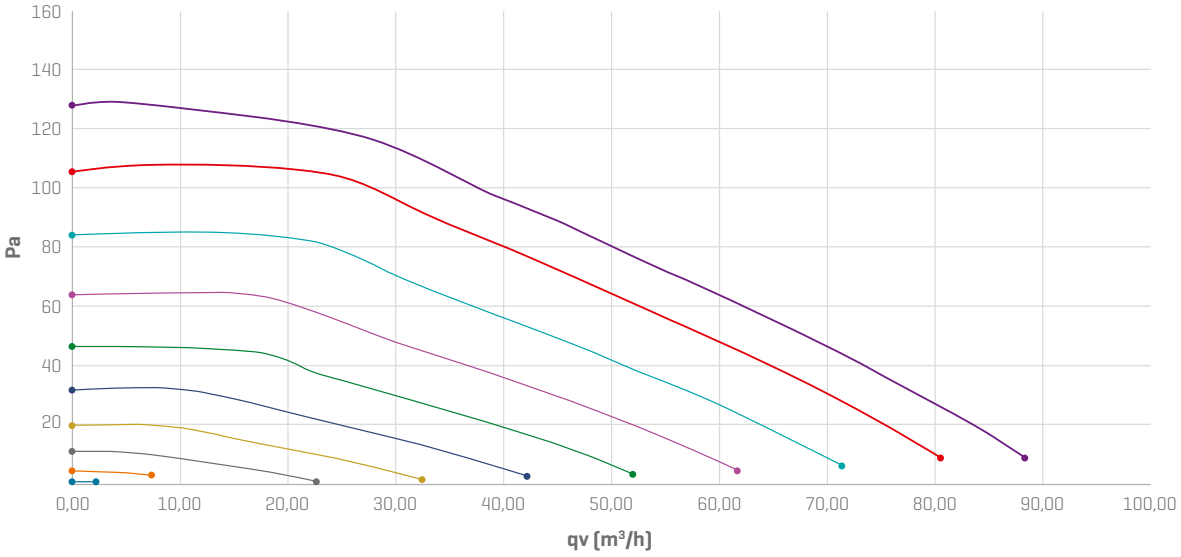
Ventilating wet rooms will allow for the air to move throughout the house. As a result, dry rooms will also be provided with fresh air. Hence, rooms adjacent to where Waves is installed will also benefit from improved air quality.

- ☑ Wide range of mounting options thanks to IP44 classification and large build-up of pressure
- ☑ Suitable for wall and ceiling mounting
- ☑ Suitable for Ø 100 & Ø 125 mm ducts thanks to foam ring
- ☑ Step-by-step set-up instructions with the app
- ☑ Automatic calibration is based on a pressure measurement in order to make sure that the required airflow rate is effectively delivered
- ☑ Airflow can be finetuned

TECHNICAL SPECIFICATIONS

	Waves®
Type of ventilation	Decentral mechanical demand controlled ventilation
Max. airflow rate	75 m^3/h (at 38 Pa) 50 m^3/h (at 80 Pa) 25 m^3/h (at 120 Pa) *fan characteristics: see graph below*
Connection voltage	230 Vac ±10% (50 Hz, 60 Hz)
Max. power	4.5 Watt
Dimensions: - Device - Packaging	 185 x 185 x 50 mm (LxWxH) 222 x 206 x 128 mm (LxWxH)
Ø connection	100 mm or 125 mm with the additional foam ring
Fan	Energy-efficient EC fan with Ø 92 mm impeller
Variable pressure control	During set-up, the lowest possible pressure level is determined according to the required extraction airflow rate.
Max. operating pressure	120 Pa - Recommended operating pressure at the set flow rate: ≤ 50 Pa - Reference value of a very good operating pressure at the set flow rate: ≤ 25 Pa
Reading out calibration pressure	with the app
Automatic calibration of the airflows	Calibration is performed in two consecutive stages: - Stage 1: pressure loss in duct and extraction flow is read out automatically - Stage 2: automatic calculation of the fan's rotational speed
Duration of the automatic calibration	30 seconds
Internet	Use the app or the WPS button to connect to Wi-Fi
Warranty	2 years

FLOW CURVE



RENSON®
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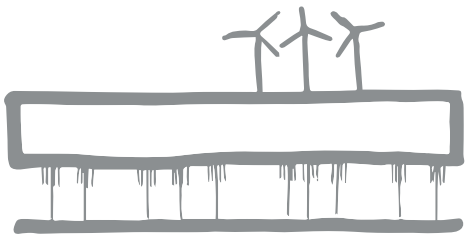

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