HEALTHBOX® 3.0

The smart, silent solution for healthy indoor air

Expot EN I 2023

RENSON®
Creating healthy spaces

THE IMPORTANCE OF VENTILATION

Are you thinking of building or renovating? Do you dream about having your own house or apartment? Then a ventilation system with Healthbox 3.0 is a must. Healthbox 3.0 demand controlled ventilation guarantees a silent and energy-efficient solution. Moreover, thanks to the various configuration possibilities, you can take full advantage of the intended energy performance of all types of homes.

NATURAL VENTILATION: A BREATH OF FRESH AIR FOR BOTH OCCUPANTS AND THEIR HOMES

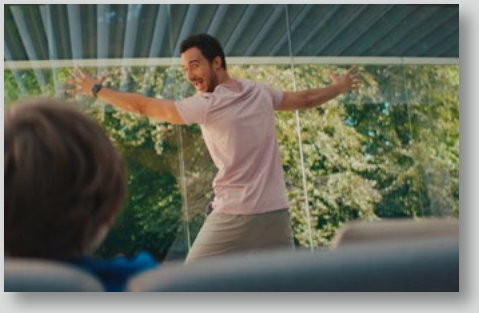
Contrary to what many people think, indoor air quality is 10 times worse than outdoor air quality, on average. Cooking, showering, cleaning, sweating and even breathing all create air pollution. A poor indoor air climate may damage occupants' health in the long term. Respiratory problems, eye irritations, headaches, allergies and a loss of concentration are just a few of the possible consequences.

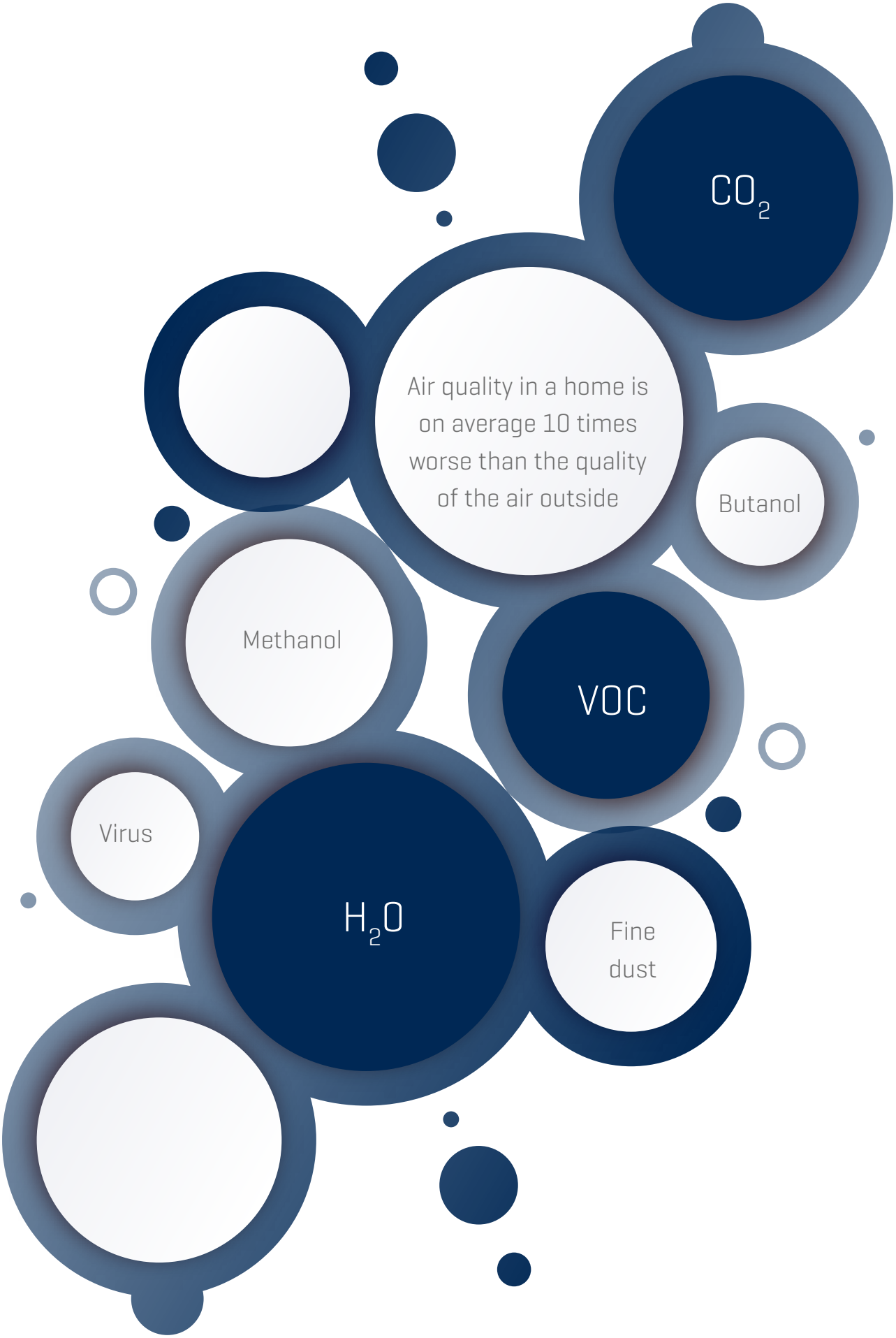
This is why it is so important to ensure constant, efficient ventilation in your home. Controlled ventilation provides the best guarantee of a healthy indoor climate.

Good ventilation also protects the house. Dissipating moist air, during a shower for example, prevents long-term effects such as mould formation.

DEMAND-CONTROLLED VENTILATION

It is not possible for us humans to detect changes in air quality. For example, we can't detect when concentrations of certain air pollutants become too high. This means that occupants cannot be expected to assess which ventilation level is necessary in order to achieve a healthy indoor climate.
That is why it is important that the ventilation level automatically adjusts to the actual ventilation that is required. Thanks to intelligent sensors, the ventilation level responds to a wide range of situations at any time of day. If the air quality in a room is good, the extraction flow rate in it is reduced. This automatic adjustment results in energy savings of approximately 60%.

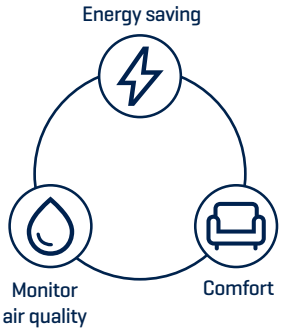



CO_2
Air quality in a home is on average 10 times worse than the quality of the air outside
Butanol
Methanol
VOC
Virus
H_2O
Fine dust

VENTILATION CONCEPT C+: THE SMART VARIANT OF SYSTEM C.

A smart demand-controlled system that only ventilates where necessary via zone control

Ventilation concept C+ is a central, demand-controlled system that automatically activates if it detects too much moisture, odours or CO_2 in the indoor air via its sensors.
Healthbox® 3.0 forms the heart of the energy-efficient ventilation concept C+. The Healthbox 3.0 is a compact system that only requires single airducts, which means it takes up little space. Since there are no filters, the system requires lilttle maintenance for optimal operation and long life.



Intelligent fan unit

Healthbox® 3.0

Controlled mechanical extraction of polluted air
Healthbox® 3.0 measures the air quality in each room 24/7 and makes adjustments in the extraction air where necessary

Extraction louvre

Finishing in design

Invisivent®

Natural supply of fresh air in dry rooms with high energy, acoustic and thermal comfort: no drafts or noise

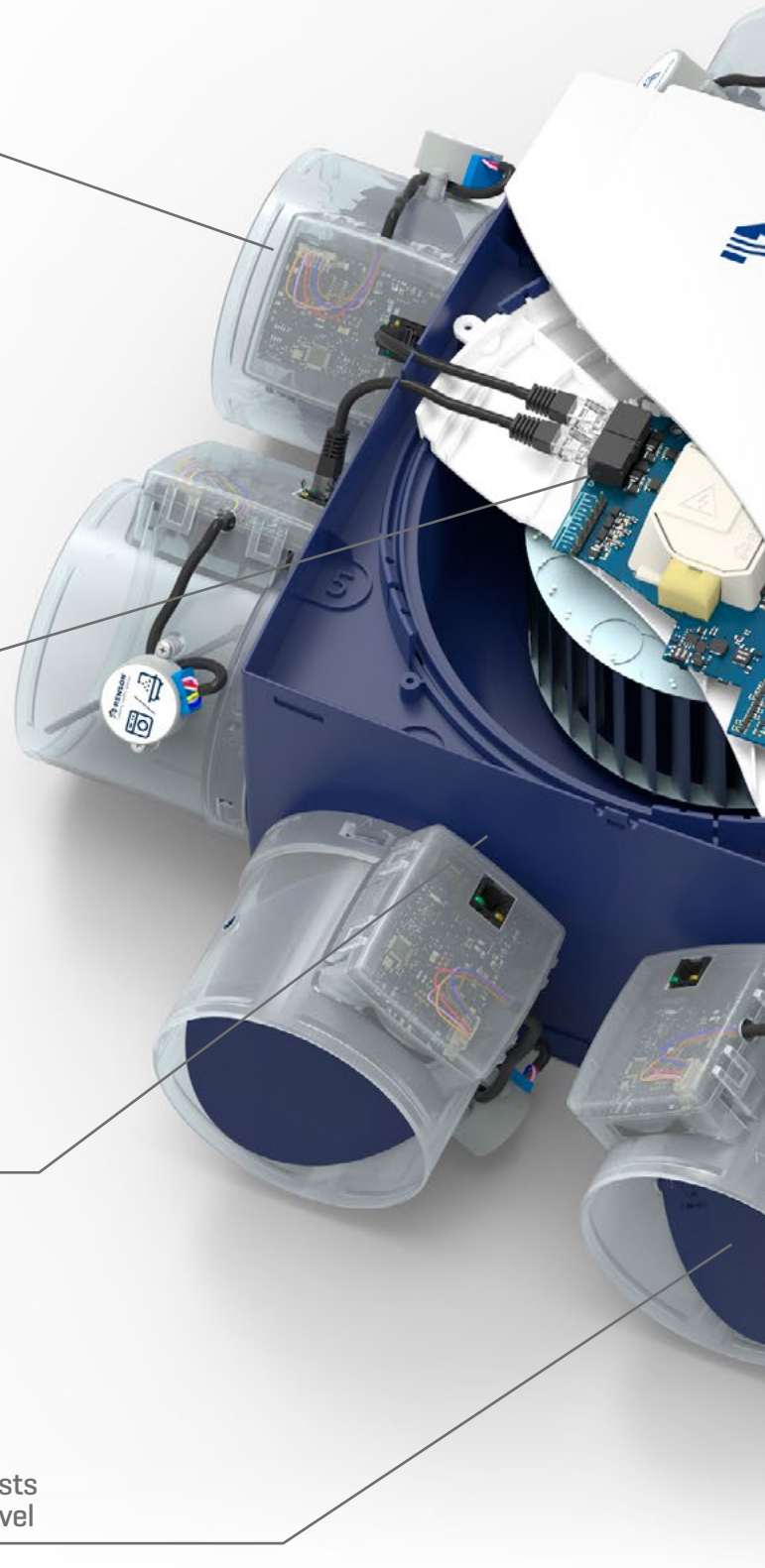
Discrete window ventilation

BREEZE-FUNCTIE: Supports natural cooling of the house during the summer

THE SMART, SILENT AND ENERGY-EFFICIENT SOLUTION

Despite its compact size, the Healthbox 3.0 **delivers impressive performance**. Thanks to the energy-efficient EC fan with its large impeller and high-tech active variable pressure-controlled operation, the Healthbox 3.0 is both silent and energy-efficient. In other words, the perfect formula for a quiet night's sleep.

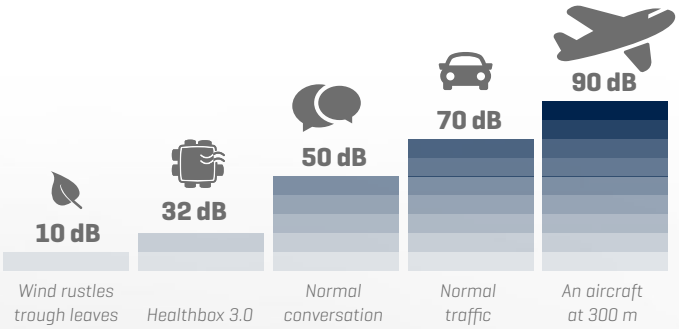
Control module: sensors measure the air flow



Printed circuit board with integrated variable pressure control

SmartZone guarantees optimal air quality in the bedroom

Valve blade: adjusts the ventilation level



SIMPLY THE QUIETEST!

32 dB(A)*

* Reference point at 150m³/h in accordance with Ecodesign

Energy-efficient EC fan (ø180 impeller)

Elegant design

Low maintenance

SmartConnect: Digital interaction via Wi-Fi or Ethernet

Did you know?

For every 3 dB of extra noise, you get an approximate doubling of the sound pressure on your eardrum. In other words, a 32 dB fan unit only makes half as much noise as a 35 dB fan unit.

150 m³/h	32 dB
225 m³/h	34 dB
325 m³/h	39 dB
400 m³/h	43 dB
475 m³/h	47 dB

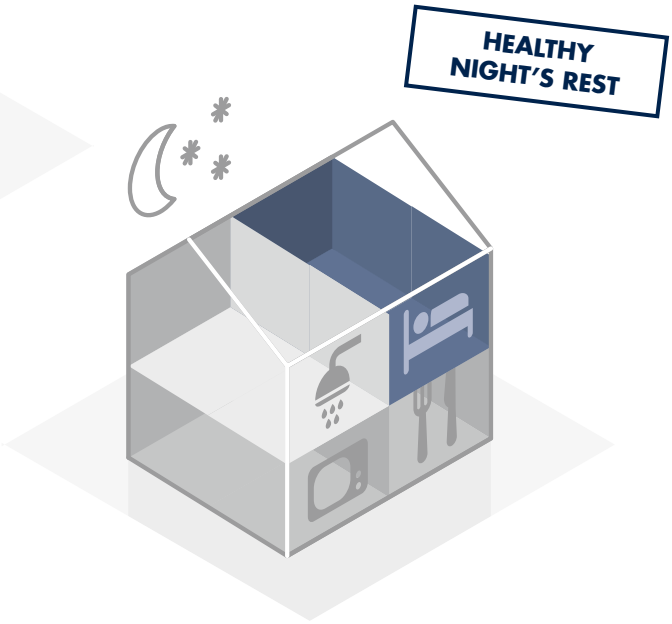
ADVANCED VENTILATION CONCEPTS

Primarily, a ventilation system protects the home against excessive humidity. A ventilation system that also responds to the CO_2 level in the home goes a step further and ensures even better indoor air quality.

HEALTHBOX 3.0 SMARTZONE

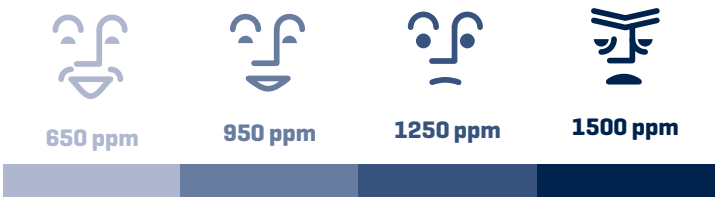
With a SmartZone configuration, air is also intelligently extracted from dry rooms such as bedrooms and/or an office, in addition to extracting air from damp rooms. In rooms where an increase in either humidity, CO_2 or VOC has not been detected, the system automatically returns to basic ventilation. The result is the best air quality in an intelligent, heat-saving way.

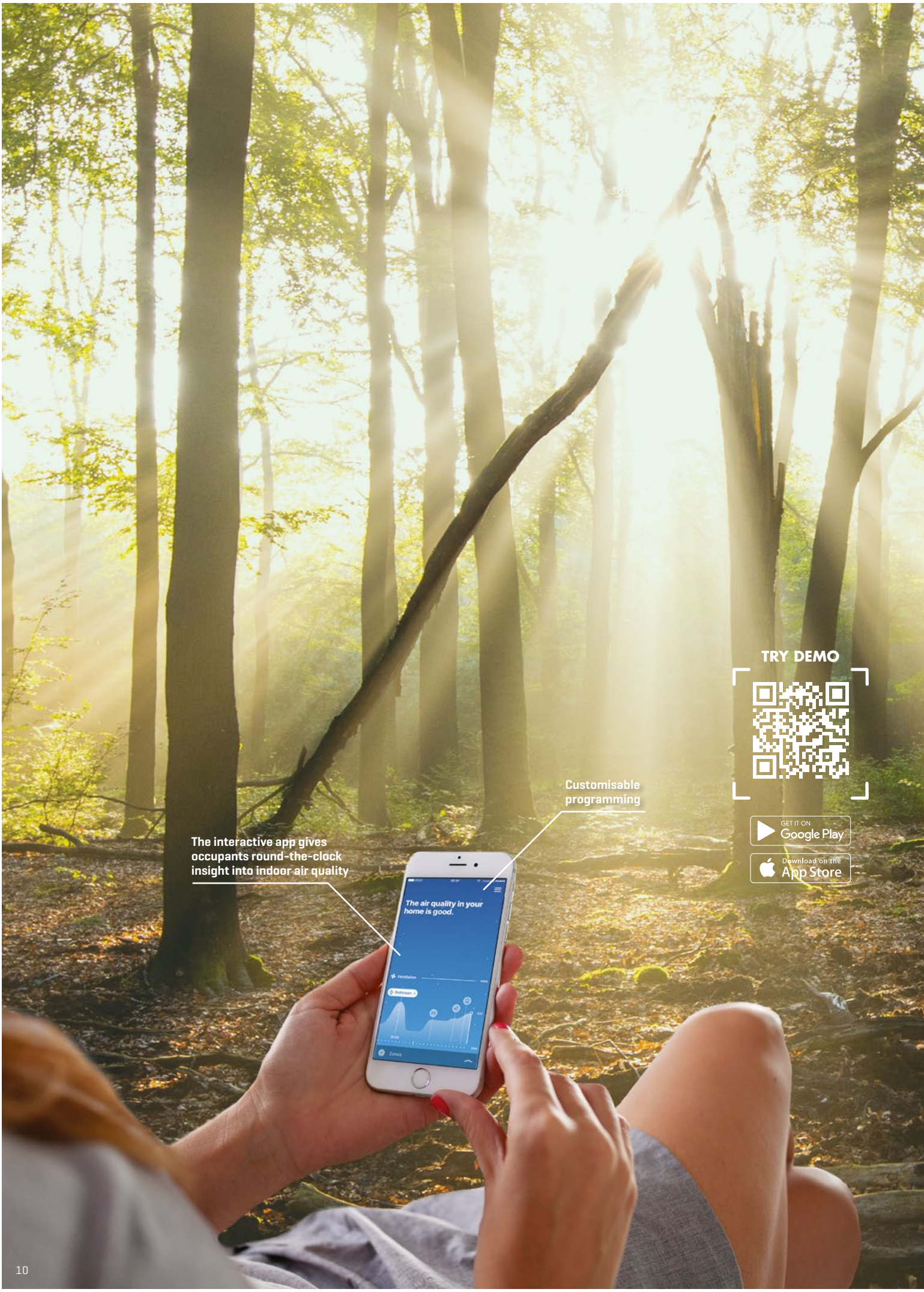
During the day, ventilation mainly takes place in damp spaces



At night, ventilation mainly takes place in the bedrooms

The CO_2 concentration level is the most important indicator of air quality. If the concentration is too high, this can lead to health problems such as headaches, poor sleep quality, loss of concentration, etc.




TRY DEMO
GET IT ON Google Play
Download on the App Store
Customisable programming
The interactive app gives occupants round-the-clock insight into indoor air quality
The air quality in your home is good.

A CLEAR VIEW ON AIR QUALITY

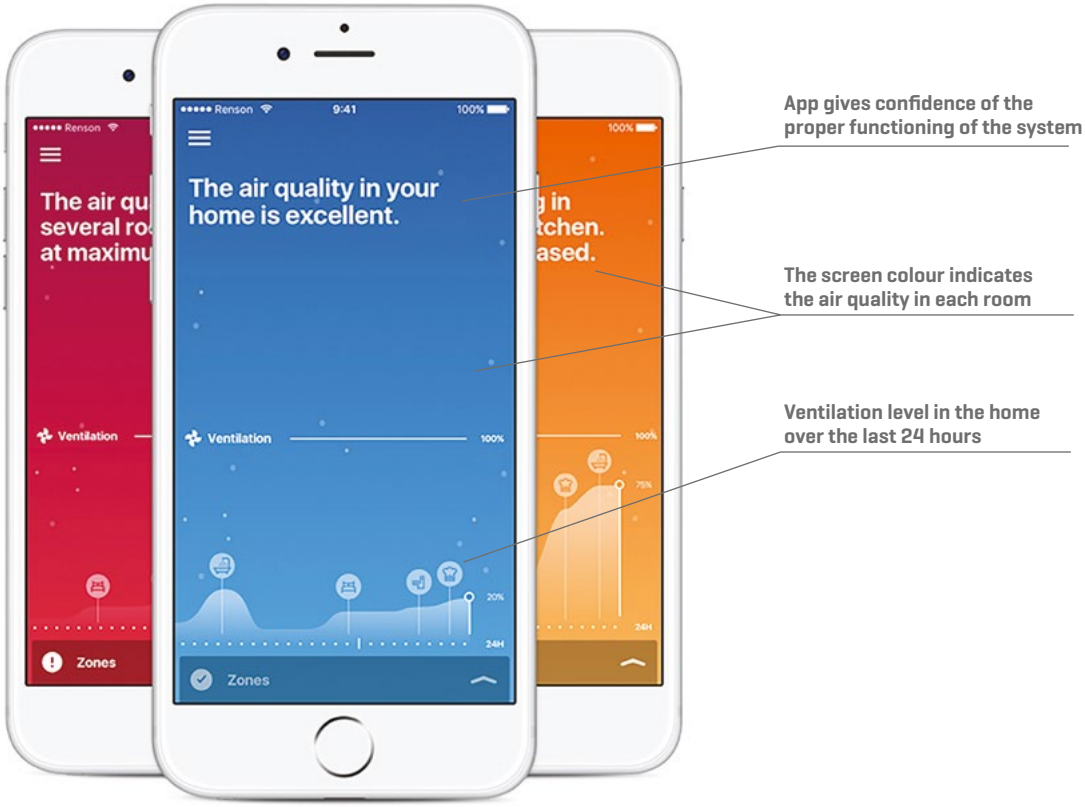
SMARTCONNECT: SAFELY CONNECT TO THE DIGITAL WORLD

The integrated SmartConnect connects the Healthbox 3.0 to the digital world.
Healthbox 3.0 thus provides interaction with the user (via app) and with other smart devices in the Smarthome (via API). When connected to the internet, Healthbox 3.0 automatically receives free updates with new features.

HEALTHBOX® 3.0-APP

The free app provides you as the user with a clear view of the air quality and ventilation level in the home. The user can also temporarily adjust the ventilation level manually for each room in the home, with a temporary boost for increased extraction for example.

Renson Ventilation

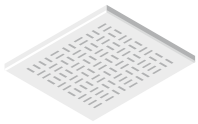


In addition to the app, you can continue to operate the ventilation units manually if you wish, using an optional traditional 3-position switch.

** The app is fully in line with the European regulations on data protection (GDPR).*

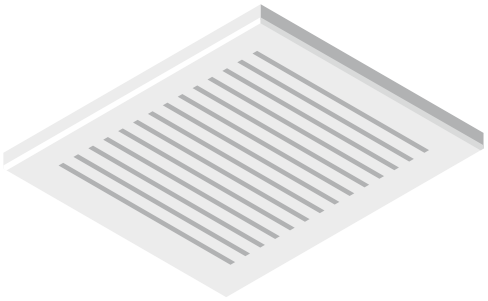
AIR EXTRACTION IN STYLE FOR EVERY ROOM

The visual impact of the extraction louvres has been reduced to a minimum. The aluminium design louvres are designed for recessed or surface mounting on the ceiling (or wall). With a choice of 6 different designs, they can be aesthetically combined to suit every type of home décor.

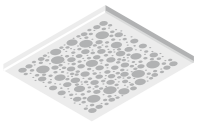


Deco

Square

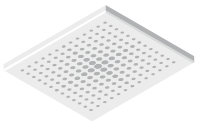


Puro



Aqua

Diagonal



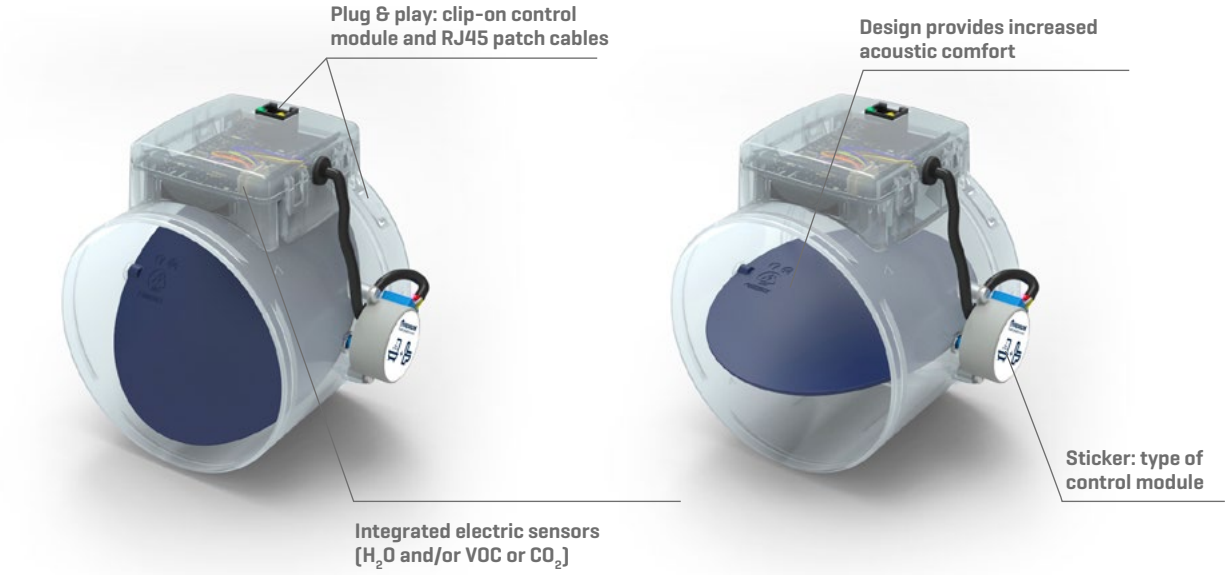
Artist

MOVING TOWARDS EASIER INSTALLATION

The Healthbox 3.0 was developed using the very latest technology so that it is easier to install and able to respond to the digital environment. Discover how the Healthbox 3.0 makes the installation of ventilation **a lot faster and more practica**l for you as an installer.

CONTROL MODULE: REGULATOR OF THE DEMAND-CONTROLLED SYSTEM

There are **5 types** of control module. The sticker on the stepper motor indicates the type of control module. The assembly of each type of control module is virtually identical, the only difference being the plug-in printed circuit board with sensors.



The 5 types of control modules allow for an correct detection/extraction control in every type of room:

Type of control module	Extraction rooms	Detection
	Laundry room *Shower room, bathroom (without toilet)*	H_2O
	Bathroom (with toilet) *Wellness room, garage, cellar*	H_2O VOC
	Toilet *Storage room/utility room, workshop, dressing, hall/corridor*	VOC ***FAST REACTION***
	Kitchen (open/closed)	H_2O CO_2
	Bedroom *Living room, office, practise area, study, hobby room, waiting room/sitting area, baby room, children's room, TV/music room, relax room, dining room, play room, studio apartment, hotel room, attic*	H_2O CO_2

Convenient installation:

- ☑ Simple: with 5 types of control modules, all configurations are possible
- ☑ Connect the ø80 or ø125 air ducts using the accompanying adapter
- ☑ The (nominal) extraction flow rate per control module can be set via the installation app

FAN UNIT

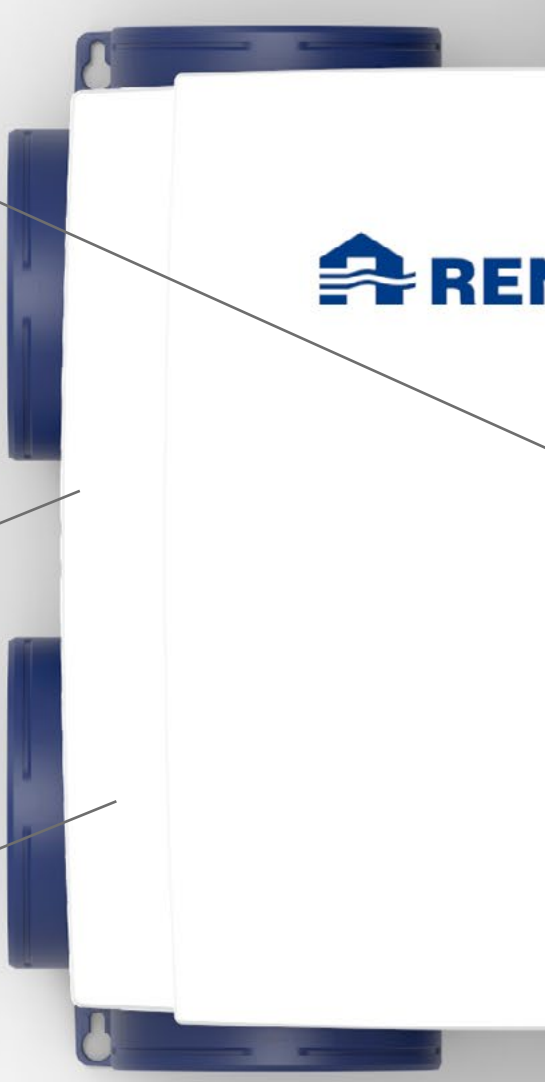
THE SILENTLY BEATING HEART

The Healthbox 3.0 fan unit is available in one version that can be configured in different ways depending on the energy performance required for each specific home. There are 7 extraction points on the fan unit to extract air from up to 11 rooms.

Power: via mains plug or directly to the fuse box

Compact, light and manoeuvrable for easy installation

Ventilation flow rate: **475 m³/h** (135 Pa)



Convenient installation:

- ☑ Reduced height: ideal for installation on a lowered ceiling, rear wall or cupboard
- ☑ Can be mounted in any of the following ways:
  - Wall mounted, ceiling mounted, floor mounted or cord mounted
  - Upright, flat (above/below)

Exhaust: choice of ø125 or ø150 using an eccentric adapter, ø160 using an optional vibration-damping connection

SmartConnect: connection with the app and the network

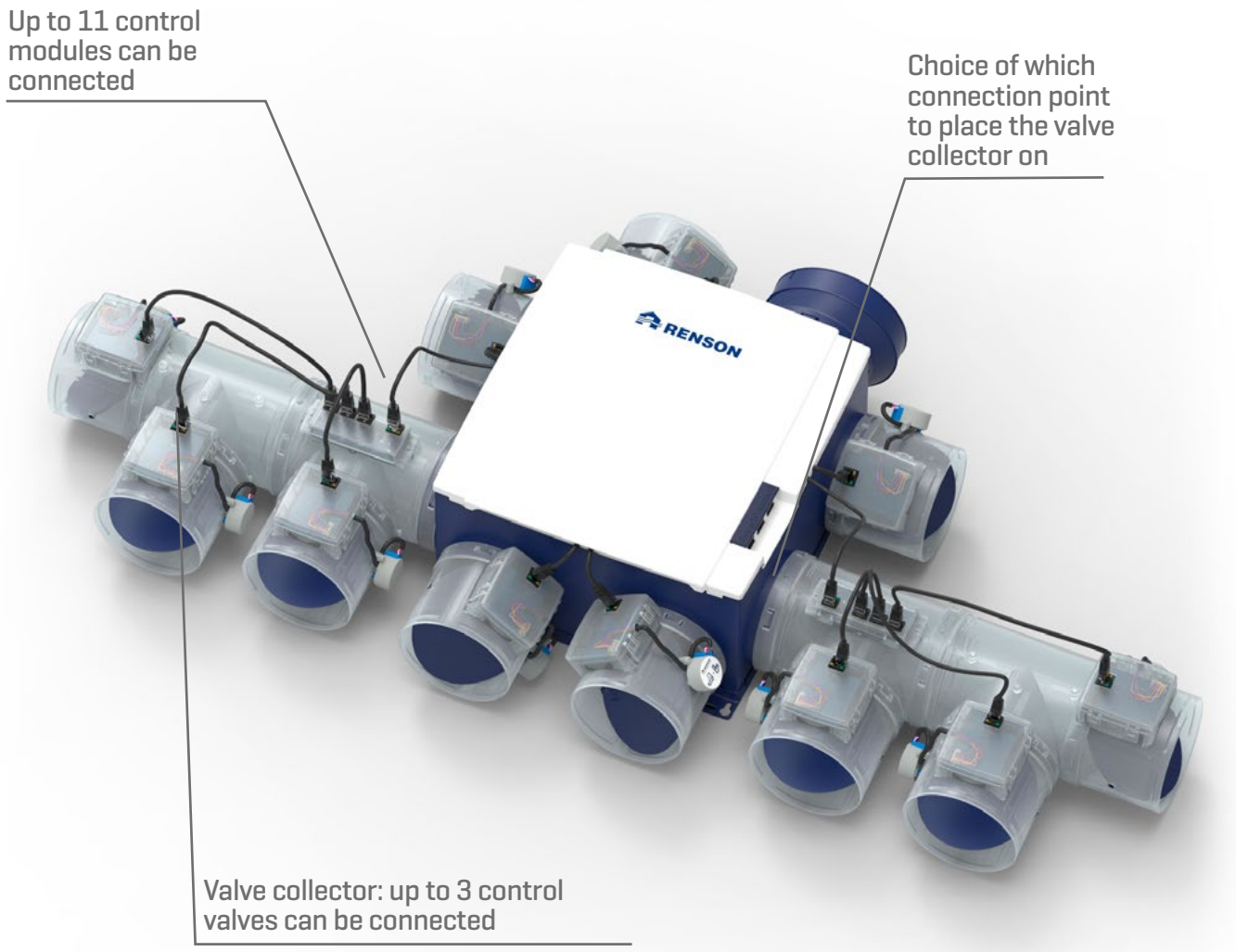
Height: only 20 cm

VALVE COLLECTOR

A SMART WAY OF DEALING WITH AIR DUCTS IN SMALL SPACES

For a quiet and neat installation, Healthbox 3.0 can be equipped with 1 or 2 valve collectors. Valve collectors allow up to 11* control modules to be connected to Healthbox 3.0. The valve collector can be installed decentrally yourself.

CONFIGURATION EXAMPLE

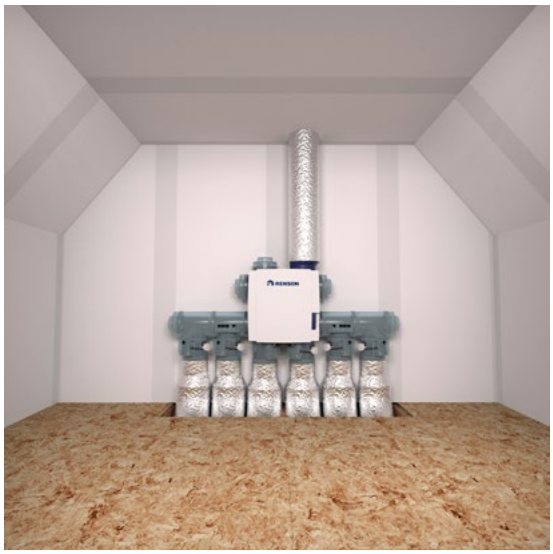


Convenient installation:

- ☑ Installing air ducts can be made much simpler and visually more attractive
- ☑ Less space is required for the air ducts
- ☑ Less pressure drop in the air duct network

** Refer to manual for maximum number of valve collectors and CO_2 control modules per configuration*

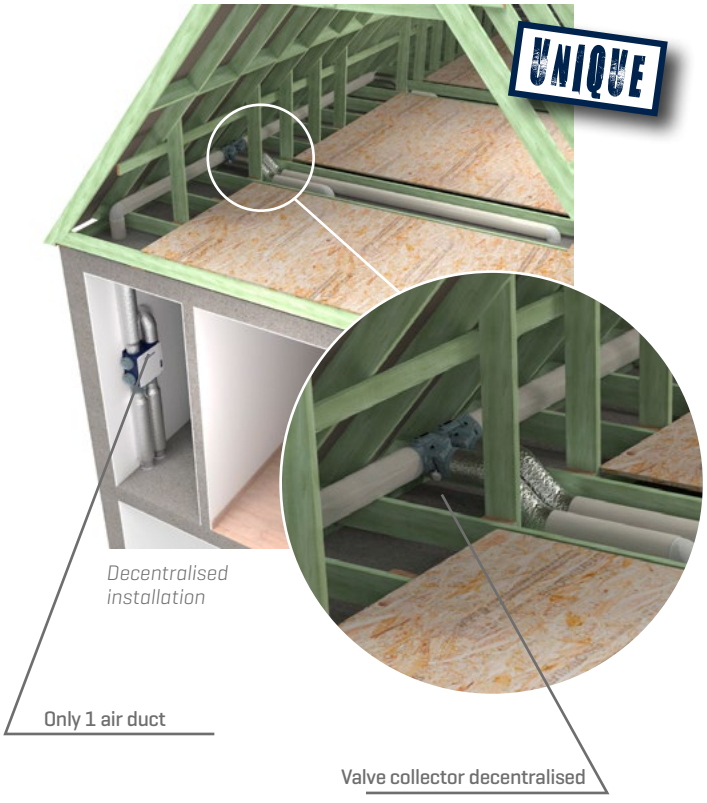
A FEW REAL-LIFE EXAMPLES



Multiple air ducts downwards
No bends in the air ducts on Healthbox 3.0: very little pressure loss

4 air ducts within a 90 cm width (see toilet space)

Air ducts are concealed neatly in the lost triangle

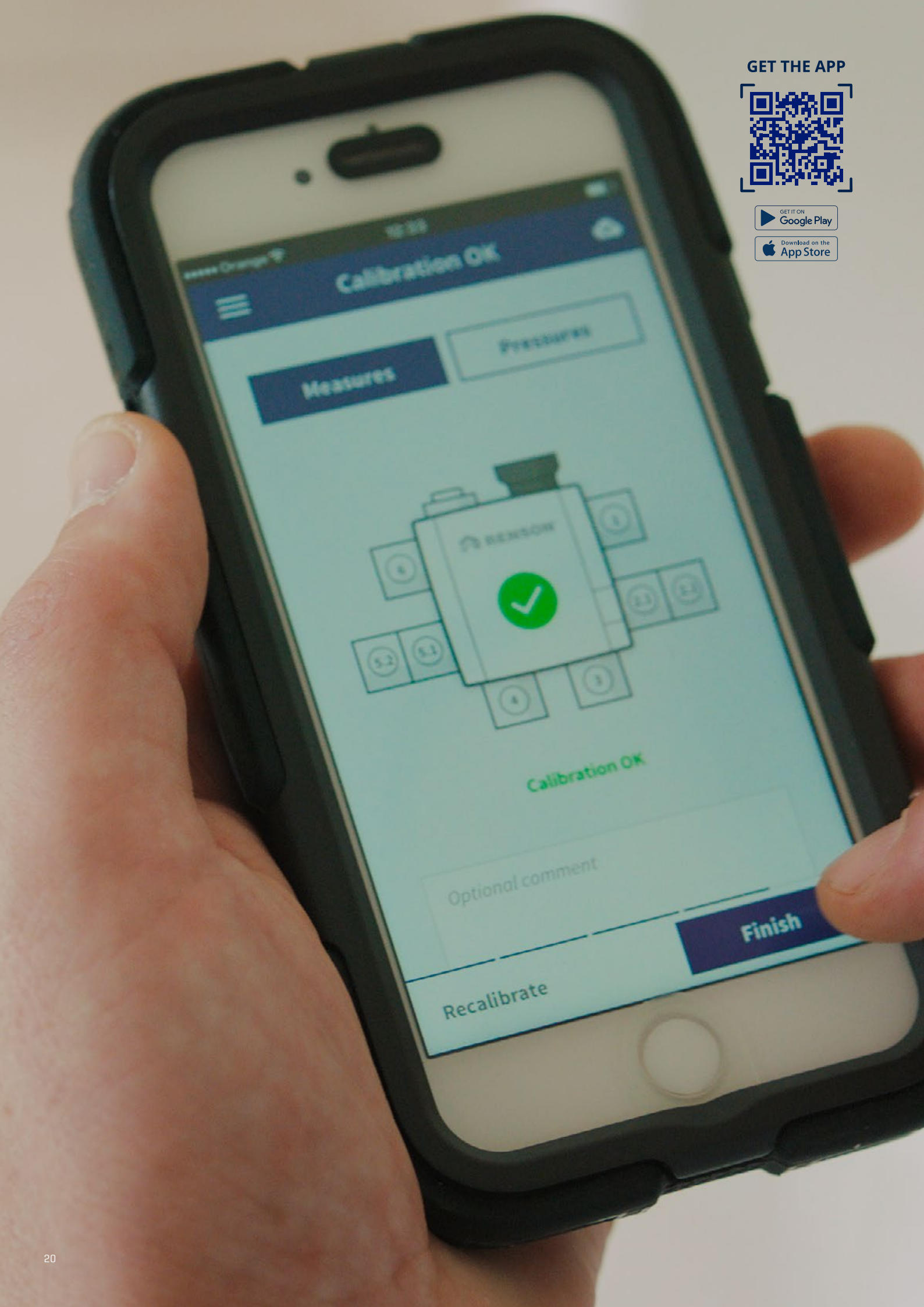


Decentralised installation

Not enough space? Work decentrally

This can be very useful if there is not enough space on the Healthbox 3.0 itself. For example, you can start with 1 air duct at the Healthbox 3.0 and branch off further on..

- ☑ The same results with fewer air ducts.
- ☑ 1 riser with up to 3 valves locally per valve collector

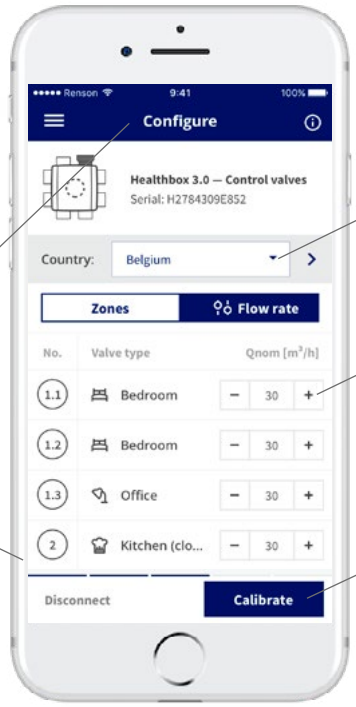

GET THE APP
GET IT ON Google Play
Download on the App Store
Calibration OK
Measures
Pressures
Calibration OK
Optional comment
Finish
Recalibrate

INSTALLATION APP

THE RELIABLE GUIDE FOR THE STARTUP

Thanks to the Healthbox 3.0's automatic calibration, manual calibration of the ventilation system is a thing of the past. Connect the app to the Healthbox 3.0 via the included WiFi dongle, and the app will automatically start the **configuration**.

AVERAGE OF 3 MINUTES INSTALLATION TIME FOR A CONFIGURATION WITH 5 CONTROL MODULES



Clear display configuration

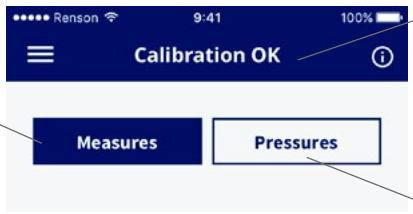
The set-up for the Healthbox 3.0 will be loaded automatically depending on the selected country settings

The nominal airflow rate for each control module is easy to set

Configuration will be detected automatically

Start up automatic calibration

After configuration, the **automatic calibration** starts. The app displays the time remaining during calibration.



Status of automatic calibration

Input of manual flow measurements

After automatic calibration, the ventilation flow rate can be modified instantly, if necessary

Consult pressure loss in the air ducts per room

Upon completion of the installation, all installation data will be saved. This data can be easily consulted afterwards via the Renson® My-Lio-professional web portal in order to generate/send a final installation report of the installation.

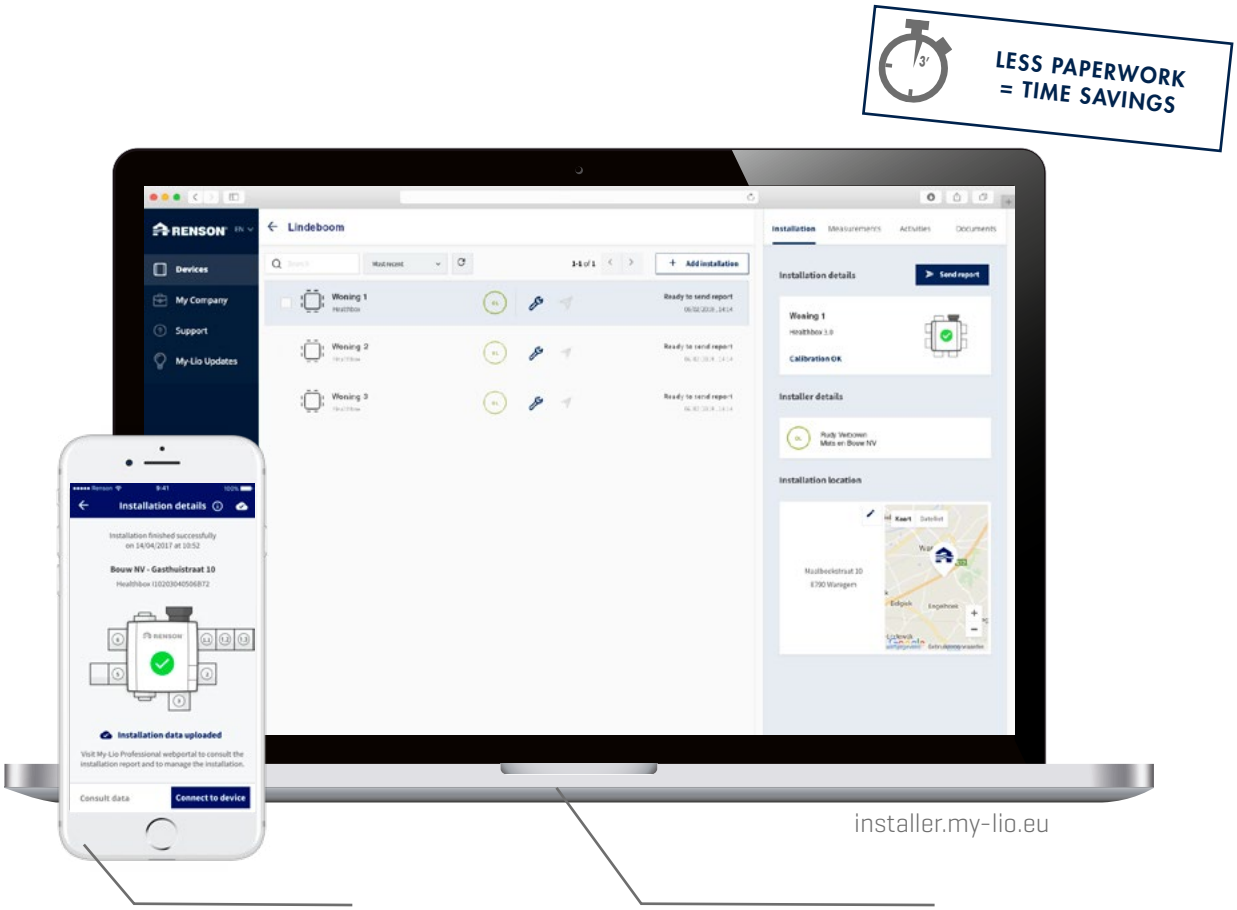
Convenient installation:

- ☑ Fast, high quality start-up
- ☑ Several Healthbox 3.0 devices can be started up *at the same time*
- ☑ On the spot diagnosis: if you encounter an error during the installation process, the app can make suggestions for possible solutions
- ☑ The test button can be used to check that each extraction point is connected to the corresponding control module
- ☑ Important software updates for Healthbox 3.0 can be pushed through the app

MY-LIO-PROFESSIONAL

Your digital right hand at the office

The Renson® Lio web portal is a fantastic tool for managing all your installations. It benefits both small-scale installers and large installation companies.



On location

Starting up the Healthbox 3.0

At the office

Creating and managing Healthbox 3.0 projects

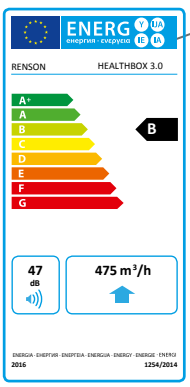
Convenient installation:

- ☑ Manage your installations with accompanying installation data
- ☑ Build up your customer portfolios in a structured manner
- ☑ Less paperwork: draw up and send a digital installation/measurement report
- ☑ No risk of illegible/torn/lost papers

OVERVIEW

TECHNICAL INFORMATION	**Type of ventilation**	Mechanical demand-controlled extraction
	Fan	– Extremely quiet & energy-efficient EC motor with Ø180 impeller. – Active variable pressure control: the lowest possible pressure level is set in each case according to the required extraction flow rates.
	(Max.) airflow rate	430 m3/h (at 200 Pa) 475 m3/h (at 135 Pa)
	Maximum fan operating pressure	350 Pa
	Reading out the calibration pressure	Use the installation app & the My-Lio-professional web portal
	Power consumption of the fan unit	Variable, depending on airflow rate and operating pressure (max 85 Watt)
	Dimensions: – Fan unit with control modules	 567 x 567 x 200mm (LxWxH)
	Maximum number of connection points for extraction: – Basic model – Using valve collectors	 7 11 *here are a few limiting conditions in the case of extreme configurations)*
	Valve collector	1 or 2 valve collectors can be connected to the fan unit; 1 to 3 control modules can be connected to each valve collector. The valve collector can also be connected remotely from the fan unit (electrical connection: UTP cable Cat 5e, wire gauge 24AWG, 30 metres max.).
	Connections	– 1x Ethernet connection – 2x USB connection *(USB-dongle for Wi-Fi connection included)* – Inputs: 3x DIGITAL, 1x ANALOGUE (0-10 V)
	Air quality detection (CO_2, moisture and VOC)	Through electronic sensors in control modules. The sensors measure indoor air quality 24/7 in the air flow extracted in each room.
	Automatic control of ventilation airflow rate for each room	The stepper motor automatically positions the control valve's damper blade according to the measured sensor values. This means that the extraction flow rate is adjusted according to the indoor air quality.
	User & installer app	Can be downloaded free of charge from Play Store (Android) and App Store (Apple)
	Automatic error message	– Via user app – Via installation app and My-Lio-professional web portal: error warning reported during the start-up phase
	Automatic software updates	Provided that the Healthbox 3.0 is connected to the internet
	Integration into smart home & domotics	- Smart home: via API – Domotics: switch module (3 contacts)
	Internal Fire security **(= system is depressurised with closed valves)**	✓
OPTIONS	**Extraction valves**	Design extraction valves (flush or wall mounted)
	Easyflex air ducts	Air transport ducts, best airtightness class D
	Acoudec	Air flexible duct with high acoustic insulation properties
	Roof exhaust/wall exhaust	Suitable feed-through fittings with low pressure drop

Full technical file



150 m³/h	32 dB
225 m³/h	34 dB
325 m³/h	39 dB
400 m³/h	43 dB
475 m³/h	47 dB

Did you know?

The eco label only shows the sound at the maximum ventilation air flow rate. In addition to the eco-label, the noise values are also graphically shown at a lower ventilation air flow rate. Due to the demand-controlled ventilation, the actual air flow rate and therefore the sound level is always lower.

RENSON®
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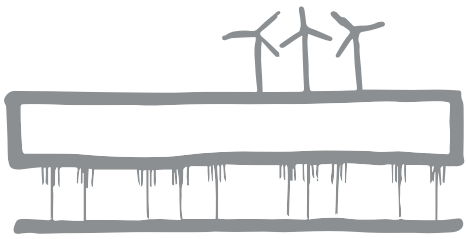

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