



**BRINK**

Healthy, comfortable and  
energy-efficient ventilation

*Air for Life*



# Renovent Excellent 180, 300, 400 and 450

Silent and energy-efficient ventilation

## Central ventilation

The Renovent Excellent is a mechanical ventilation heat recovery system (MVHR) that is available in versions with ventilation capacities of 180, 300, 400 and 450 m<sup>3</sup>/h. Relative humidity sensors are an option for all models. The Plus version offers the option of demand flow ventilation using CO<sub>2</sub> sensors, RH sensors or other third-party devices, and an optional postheater. The systems are particularly designed for dwellings and apartments of all sizes.

## Silent

The use of low-speed, backward curved fans and the metal casing of the Renovent Excellent makes it one of the quietest ventilation units on the market.

## Flexible installation

Since the Renovent Excellent is available in a number of configurations (Renovent Excellent 300/400 in 4/0, 2/2 and 3/1, Renovent Excellent 180 and 450 in 4/0), it is suitable for almost every installation. The Renovent Excellent 180 is compact enough to fit in a kitchen cupboard.

## Low energy consumption

The Renovent Excellent is tested according to EN308, EN13141-7, DIBt (except for Renovent Excellent 180), Passivhaus and NF 205. The high-efficiency heat exchanger and low electrical energy consumption mean that according to Ecodesign it achieves an energy rating of A with standard controls or A+ when used with demand flow sensors (CO<sub>2</sub> and RH) (Renovent Excellent 180 B or A, Renovent Excellent 450 A).

## Complete range of accessories

A complete range of accessories is available for the Renovent Excellent, including control switches, Air Control, air quality sensors (CO<sub>2</sub> and RH), Brink Connect (Modbus), enthalpy heat exchanger, silencers and a complete air distribution programme.

## Complete, silent and energy-saving

### The advantages at a glance

Clean, filtered air 24 hours a day for a healthier indoor environment

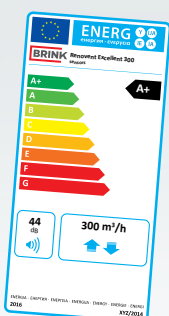
High-efficiency heat recovery tested according to EN13141-7

The highest efficiency under all conditions due to Constant Flow Control

Standard 100% bypass (bypass functionality for the Renovent Excellent 180)

Ecodesign A or A+ label (with demand flow control) for the Renovent Excellent 300/400

Enthalpy exchanger available for a better balanced indoor humidity during winter season



Green labels according to Ecodesign

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# Renovent Sky 150, 200 and 300

Compact and space-saving

## Central ventilation

The Renovent Sky is a mechanical ventilation heat recovery system (MVHR) that is available in the capacities 150, 200 and 300 m<sup>3</sup>/h. In addition to the standard version, a Plus version is available. It has additional control options, for example, CO<sub>2</sub> sensors, RH sensors, a postheater and connection to a geothermal heat exchanger. The Air Control with timer is supplied as standard with both Renovent Sky models.

The Renovent Sky 150 and 200 units are very compact and with their height of 198 mm, they are specially built to fit under the ceiling. That makes them highly suitable for renovation of compact dwellings such as student flats or senior citizens dwellings. The Renovent Sky 300 is an excellent choice for central ventilation of larger houses and offices where lack of space makes it impossible to place a wall-mounted appliance.

## Silent

Its design with low-speed fans, low internal resistance and metal casing, makes it the quietest ventilation system on the market. For the Renovent Sky 150, 200 and 300, various silencer modules are optionally available (some of them with an integrated air manifold). These modules are mounted directly on the Renovent Sky unit which results in a very neat solution.

## Flexible installation

With its compact height, the Renovent Sky is easily installed above a suspended ceiling. Additionally, the Renovent Sky unit can also be mounted vertically on the wall.

## Low energy consumption

The Renovent Sky is tested according to EN308, EN13141-7, DIBt and Passivhaus. With their high-efficiency heat exchanger and low energy consumption, all Renovent Sky units achieve according to Ecodesign an energy rating of A, the Renovent Sky 300 even A+ when used with sensors.

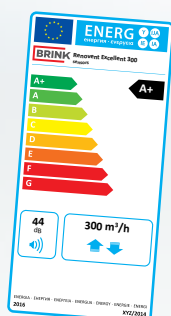
## For ceiling and wall mounting

### The advantages at a glance

- Compact units, Renovent Sky 150 and 200 only 198 mm high
- Clean, filtered air 24 hours a day for a healthier indoor environment
- High-efficiency heat recovery tested according to EN13141-7
- The highest efficiency in all conditions due to Constant Flow Control
- 100% bypass for cool air in summer period
- Standard clock control with timer
- Ecodesign A label; A+ label (with demand flow control) for the Renovent Sky 300
- Optional enthalpy exchanger for Renovent Sky 300



Silencer modules



Green labels according to Ecodesign

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# Demand Flow Ventilation

## Ventilation on demand

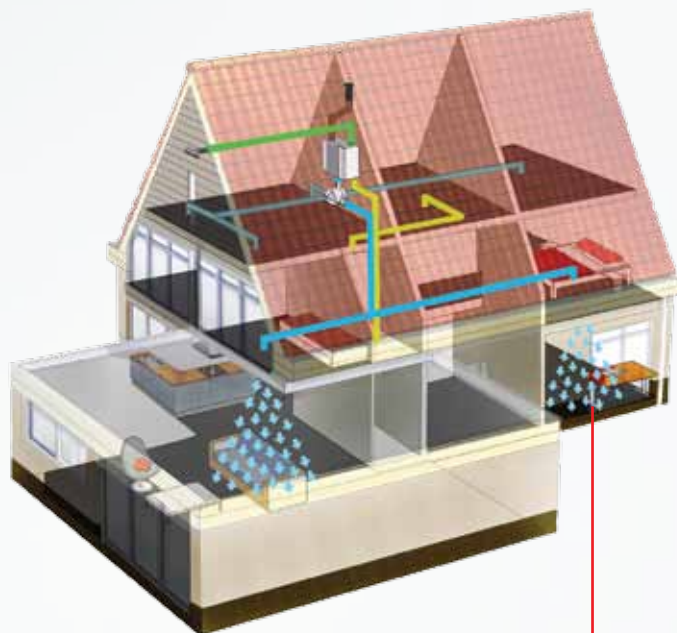
### Efficient and silent ventilation

Demand flow ventilation makes it possible to control the air flow rate in response to the current air quality in the living rooms or zones. In these areas, an indoor air quality sensor measures the CO<sub>2</sub> concentration. If the air quality is good in all areas, the system works at the base speed. If the air quality in the living room deteriorates (as the CO<sub>2</sub> level increases), because there are many people in the living room, the ventilation rate is automatically increased proportionately. In addition, a humidity sensor (RH) detects a rapid increase of the level of humidity due to cooking/showering. Then the ventilation system is switched to its highest level. When the humidity drops again, the system automatically switches back to its lowest level.

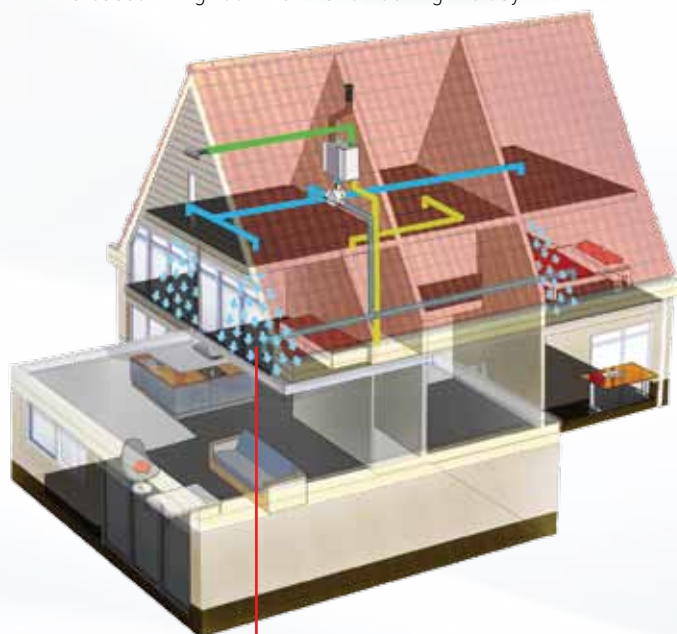
### Demand flow ventilation 2.0

Demand flow ventilation 2.0 by Brink is even more advanced. Here the supplied air is divided between the living and the sleeping zones. A specially developed 3-way valve directs the air to the bedrooms or the living room or to both on the basis of the air quality measured in the zones or the individual rooms. If the current base ventilation rate is not sufficient to achieve the desired air quality, the ventilation air quantity is gradually increased. Since the supplied air is only sent to the zone where it is needed, the total ventilation flow rate is lower and that means additional energy savings. Therefore, the Renovent has to move less air and the ventilation noise will decrease by 6-8 dB(A). In view of current regulations, that is significant. Up to eight CO<sub>2</sub> sensors can be connected to these systems which makes it possible to respond to measurements from several rooms. In addition to demand flow ventilation based on air quality, the system can also be controlled with the Air Control unit.

For enhanced comfort,  
energy savings and noise reduction



Demand flow ventilation 2.0:  
Increased living room ventilation during the day



Demand flow ventilation 2.0:  
Increased bedroom ventilation during the night

### The advantages at a glance

Guaranteed indoor air quality with CO<sub>2</sub> control

Automatic boost function triggered by RH sensor (cooking/showering)

Lower sound level (6-8 dB) due to lower flow rates

Up to 60% lower energy consumption due to lower air flow rates

Can be combined with the Renovent Excellent and Sky

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# Enthalpy exchanger

## Moisture recovery heat exchanger

### Air humidity

The supply of cold, dry outdoor air in wintry conditions and extraction of stale, humid indoor air will cause a gradual drop in relative humidity in dwellings and offices. A too low relative indoor humidity is considered uncomfortable. The enthalpy exchanger transfers part of the moisture in the exhaust air to the supplied dry outdoor air, so excessive dehydration of the indoor air is prevented.

### Enthalpy exchanger for moisture transfer

The standard Brink heat exchanger transfers heat. With the specially developed membrane film in the new enthalpy exchanger, in addition to heat transfer, moisture is also transferred between the air flows. The quantity of moisture that is transferred depends on the relative humidity of the indoor and outdoor air and may run to about 60%. The enthalpy exchanger can prevent dehumidification of the home.

### Efficiency from heat and humidity

The enthalpy exchanger has a recovery efficiency from latent and sensible heat. That makes the total energy efficiency of the enthalpy exchanger 136%. The enthalpy exchanger is available for the appliances Renovent Excellent 300, 400 and 450 and Sky 300.



Enthalpy exchanger

Less dry air in cold seasons

### The advantages at a glance

Heat and moisture recovery up to 136%

Increased comfort

Standard heat exchanger can be exchanged one-on-one

No condensate drain required

Easily cleaned with water (up to 50 °C)

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# Controllers

Fully automatic or manual

With a choice of controls, it can be as simple or as sophisticated as you wish

## 4-way switch with filter indication

The 4-way switch has a little LED light for filter indication. When this lights up, the filter has to be cleaned.



4-way switch with filter indication

## Air Control

The Air Control is a clock control unit. It offers a higher comfort level and even higher energy savings.



Air Control

## Wireless remote control

The wireless remote control features an RF transmitter with two or four settings and an RF receiver. The transmitter with two settings and the one with four settings each have a filter indicator LED that lights up when the filter has to be cleaned.



Wireless remote control

## CO<sub>2</sub> sensor

With a CO<sub>2</sub> sensor, the amount of ventilation can be determined based on the presence of CO<sub>2</sub>.



CO<sub>2</sub> sensor

## RH sensor

The RH sensor detects a sudden rise of the relative humidity in a room as result of cooking or showering, for example.



RH sensor

## Brink Connect (Modbus)

With the Modbus interface, Brink Connect, the Renovent Excellent can communicate with a Modbus network such as a building control system, for example. This makes it possible to monitor, to adjust and to analyse performance of the ventilation units from one central point (in relation to energy results of the building).

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# Air Excellent System circular and semi- circular

The most complete air distribution system

## Air distribution system

The Air Excellent System is a flexible, modular air distribution system for supply and extract of ventilation air. The various parts allow connection of the duct to the central manifold (distribution box) and the Brink air valves. The system is available in the following dimensions: semi-circular 50 x 100 mm (height 50 mm) and 60 x 130 mm (height 60 mm) and circular 63/52 mm (height 63 mm), 75/63 mm (height 75 mm) and 90/75 mm (height 90 mm).

## Operation

Two manifolds are placed between the HRV unit and the supply and extract points to ensure optimum air distribution. Optionally, these manifolds can have internal sound insulation. The ducts lead the air from and to the various rooms. With the available variety of manifolds and accessories, the Air Excellent System is easily installed throughout the home without special tools. In addition, the semi-circular Air Excellent System is 30% less high than other air distribution systems, which allows substantial savings on the height of the finished floor. The circular Air Excellent System can be combined with the semi-circular Air Excellent System. Both duct types can be incorporated in concrete.

The most complete air  
distribution system



## The advantages at a glance

Balancing with online configurator

Easy and quick to install: 'plug and play'

Lower failure risk during installation

No cross-talk between rooms

High airtightness

Low maintenance

Antistatic and antibacterial

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# General

## Balanced heat recovery ventilation

The fresh air supply and the stale extract air are balanced. The air flows do not mix and they remain separate. Heat is transferred from the extracted air to the cold incoming air. This means the cold outdoor air is warmed 'for free' so no energy is wasted.

## Constant Flow Control

Application of the unique Constant Flow principle in all Renovent appliances guarantees the preset air flow rates and the balance between supply and extract air. Balanced ventilation always guarantees high efficiency; independent of the resistance in the duct system or dirty filters. It also saves time when commissioning the system.

## Continuous filtering

The Renovent is equipped with two filters. These filters remove 95% of the dust from the air. A high performance fine dust filter (F7) is optionally available, ideal for areas with a high dust load like highways and airports. People who are allergic to pollen or fine dust benefit from these filters.

## Brink Home

Brink Home makes it possible to control and monitor the ventilation system from anywhere in the world using a smart phone, tablet or PC.

## Bypass for night ventilation

In summer, the 100% bypass contributes to improved comfort and it is controlled automatically on the basis of the measured indoor and outdoor temperatures.

## Preheater

The intelligent frost protection with preheater guarantees the high efficiency at extremely low outdoor temperatures. Compared to other solutions for frost protection, it means extra savings on the energy bill.

# Technical data

\* See our website [www.brinkclimatesystems.com](http://www.brinkclimatesystems.com) for the full technical specifications according to Ecodesign.

Appliance type	Renovent Excellent				Renovent Sky		
	180	300	400	450	150	200	300
Ventilation capacity at 150 Pa [m³/h]	Maximum 180	Maximum 300	Maximum 400	Maximum 450	Maximum 150	Maximum 200	Maximum 300
Ecodesign energy class* • Manual • Clock • Central demand • Local demand							
SPI at reference flowrate [W]	46 at 126 m³/h (and 50 Pa)	40 at 210 m³/h (and 50 Pa)	64 at 280 m³/h (and 50 Pa)	88 at 315 m³/h (and 50 Pa)	36 at 105 m³/h (and 50 Pa)	36 at 140 m³/h (and 50 Pa)	51 at 210 m³/h (and 50 Pa)
Dimension duct connection [mm]	Ø 125	Ø 160	Ø 180	Ø 180	Ø 125	Ø 160	Ø 150 and 160
H x W x D [mm]	600 x 560 x 302	765 x 677 x 564	765 x 677 x 564	765 x 677 x 564	198 x 660 x 1000	198 x 660 x 1000	310 x 644 x 1185
Weight [kg]	25	38	38	38	24,5	24,5	37
Temperature efficiency [%]	up to 95	up to 95	up to 95	up to 95	up to 95	up to 95	up to 95
Constant Flow Control	✓	✓	✓	✓	✓	✓	✓
Standard bypass (bypass functionality)		✓	✓	✓	✓	✓	✓
Built-in preheater		✓	✓	✓	✓	✓	
Connection provisions for RH sensor	✓	✓	✓	✓	✓	✓	✓
Connection provision for CO <sub>2</sub> sensors (Plus)	✓	✓	✓	✓	✓	✓	✓
Connection provision for 2-zone demand flow	✓	✓	✓	✓	✓	✓	✓
Connection for Air Control	✓	✓	✓	✓	Air Control supplied as standard	Air Control supplied as standard	Air Control supplied as standard
Connection for Brink Connect	✓	✓	✓	✓	✓	✓	✓



## Brink ventilation systems



### Health

Removal of harmful substances, supply of oxygen-rich air



### Comfort

Fresh air without draughts or chills



### Convenience

Relying on healthy air without any effort



### Sustainability

Higher building ratings, energy costs savings and reduction of CO<sub>2</sub> emissions



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