

Breathe Fresh Air at Home

Residential Ventilation



We eat and drink around 4 kg per day and breathe around 12,000 litres (15 kg) of air every day. 90% of that is indoor air. Even so, the quality requirements for food and drink are much more stringent than the requirements for the air we breathe.

90%



Buying an orange is easy. You know it's good for you. It radiates freshness and wholesomeness, you could say. You can also smell it and taste it. And you can tell straight away if it's rotten. But when it comes to indoor air quality (IAQ) at home, things aren't quite so straightforward.

Of course you know, deep down inside, that air is important. But you can't take hold of it, and it can be difficult to feel if it is bad. That's why indoor air is rarely high up on families' wish lists, although really it should be. That's the major challenge we face here at Systemair. Because we provide fresh, environment friendly, energy-efficient ventilation that promotes the wellbeing of you and your family.



Lots of people believe the air in their homes is good ...

... but far too frequently, the air in our homes is even worse than the air out on the street. Research and studies show that in our major cities, there can be as much as 2 to 10 times* more contaminated air indoors than outdoors. In turn, this can lead to asthma, allergies and even lung cancer. Quite simply, we need fresh air if we are to feel great.

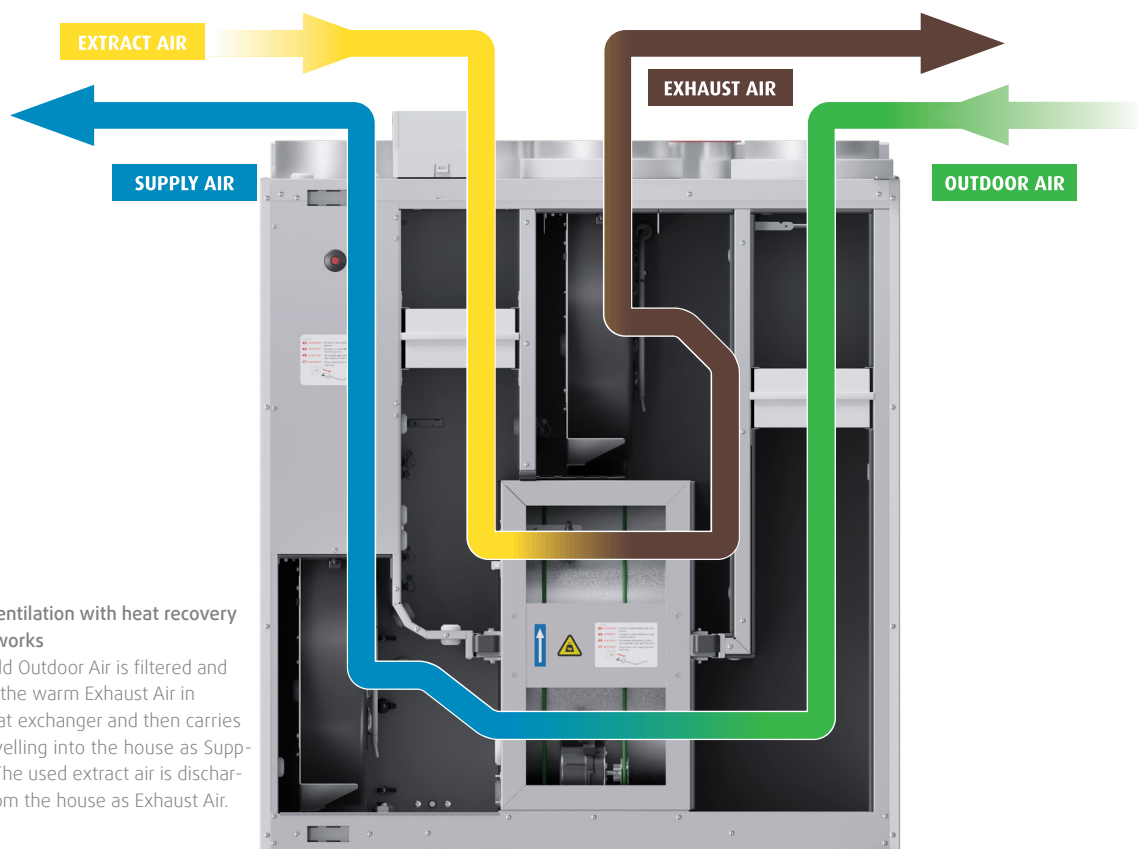
Many homes are unable to guarantee healthy indoor air. Rather worryingly, not many residents realise just how serious the situation is.

Elevated radon values in indoor air can be traced directly back to outdated ventilation solutions that are incapable of removing contaminated air from the home. In some cases, the situation is even made worse by the old ventilation. Every year, a large number of people all over the world are affected by lung cancer as a consequence of exposure to radon.

*Source: The Environmental Protection Agency (EPA)

Residential ventilation that saves energy

Ventilation with heat recovery (FTX) not only guarantees healthy air exchange in your home, but is also a healthy investment as it will reduce your heating costs and benefit both your pocket and the environment that we all share.



How ventilation with heat recovery (FTX) works

The cold Outdoor Air is filtered and meets the warm Exhaust Air in the heat exchanger and then carries on travelling into the house as Supply Air. The used extract air is discharged from the house as Exhaust Air.

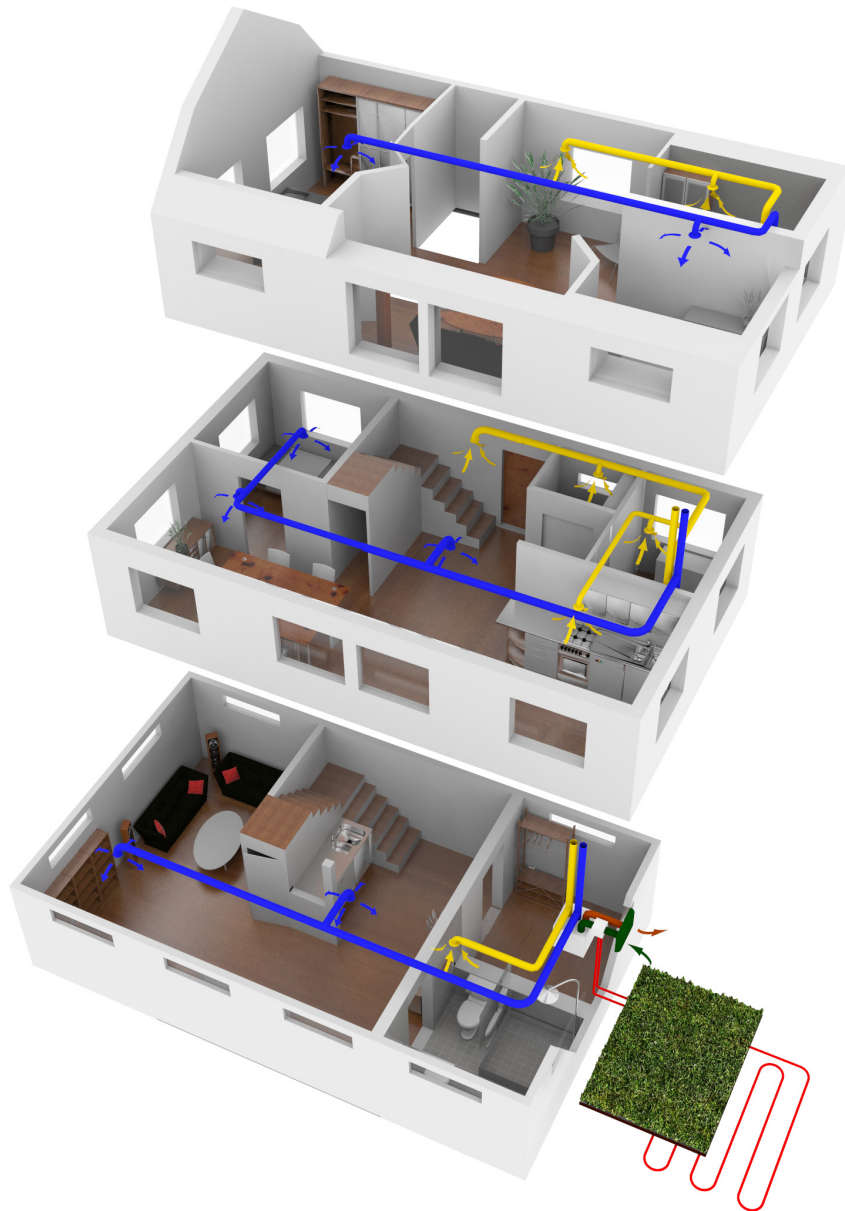
The United States EPA ranks indoor air quality as a top five environmental risk to public health. EPA studies found indoor air pollutants were generally 2 to 5 times greater than outdoor pollution levels. In some cases, indoor air pollution was 100 times greater.

5th



Quality of life starts with the climate

Residential ventilation by Systemair



This is how your controlled residential ventilation works:

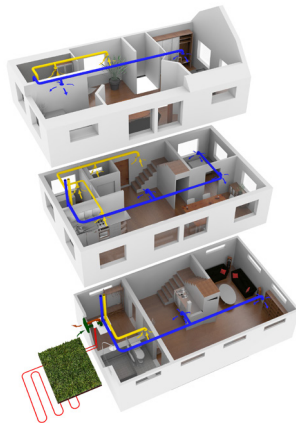
Using the rooms, kitchen, bathroom and toilet, your ventilation system removes waste air from inside. Depending on the system, a heat exchanger extracts the heat from used air and, at the same time, outdoor air is taken in and is filtered.

If necessary, the heat exchanger pre-temps the cool outside air using heat from the waste air. The outdoor air then flows through the vents into the rooms. From there, the supply air flows through openings in the doors (door gap or grille) across the overflow area (corridor and floorboards) into the kitchen, bathroom and toilet. This way, the two different types of air don't mix.

The result: an optimum air ratio and a pleasant room climate.



Perfectly in tune with your customers



With SAVE Systems, your customers are constantly breathing outdoor air at home. Even with our basic configuration, they can enjoy the best climate conditions.

Comfort which can be improved on even further: with components which automatically manages the supply of outdoor air and save on energy too.

Could there be such a thing as too much convenience?

SAVE VTR/VSR

Highly efficient residential ventilation with rotational heat exchanger



Your customers want maximum convenience with minimum heat loss? Then recommend them our rotational heat exchanger system. This extracts the heat from the waste air and pre-tempers the cool outdoor air. Some of the humidity of the air is also recovered and transferred to the supply air. High-quality fine particle filters make sure the air stays pure.

The benefits:

- Controlled outdoor air and ventilation
- Heat recovery degree of up to 85%
- Bypass function
- Extreme energy savings
- User-friendly
- Space-saving and quiet-running
- Allergy-friendly
- Humidity recovery, thus consistently pleasant indoor climate
- No condensation, thus connecting to the drains is unnecessary
- Frost protection is unnecessary (to as low as approx. -30°C)

SAVE VTC

Highly efficient residential ventilation with counter flow heat exchanger



With a reverse flow heat exchanger your customers can achieve the highest degree of heat recovery. The system automatically switches between normal mode with heat recovery and summer mode without it. In summer a bypass function overrides the heat recovery.

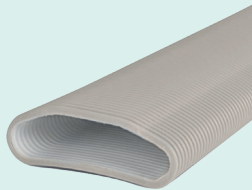
The benefits:

- Controlled outdoor air and ventilation
- Heat recovery degree of up to 90%
- Bypass function
- Automatic de-icing function
- Extreme energy savings
- Quiet-running
- User-friendly
- Optional fine particle filter



Systemair duct systems

Extremely flexible



For whichever convenient ventilation system your customers chooses and regardless of their structural circumstances, with our ductwork systems you can rise to every challenge.

Whether from galvanised steel sheeting or polymer, whether round or oval, all pipes are extremely robust, resistant to deformation and, if necessary, easy to clean.

Your clients can make the selection and choose the size to meet their individual requirements. This guarantees the safe and economical distribution of air through the building.



Systemair air distribution products

Just your style



Do your customers prefer modern living? What about classical, maybe elegant or perhaps they prefer the style of the country house? Regardless of which fittings your clients like, they're bound to find the design they're looking for in our versatile range of high-quality ceiling and wall vents.

Simply show your customers the models in our catalogues or refer them to our website www.systemair.com



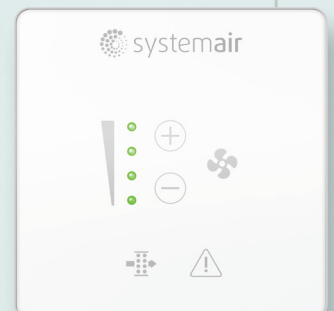
SAVE control benefits:

- Start up wizard
- Flexible and freely configurable
- Selection of user interfaces:
 - SAVE TOUCH
 - SAVE LIGHT
 - SAVE CONNECT
- External Connection Board
- Integrated support for BMS/SCADA using Modbus communication



SAVE TOUCH

Advanced touch screen controller with intuitive and simple control interface. Simple unit configuration using Start Up Wizard, possibility to monitor and control all unit parameters, overview alarm and data history.



SAVE LIGHT

Simple control panel for basic control functionality, possibility to reset filter timer and alarm indication.

SAVE Control System

Simplified connection, configuration and control

The SAVE control system is the common platform for all SAVE models.

Connection Board simplifies installation of external devices - heating/cooling equipment, cooker-hoods, sensors for Indoor Air Quality control, smoke or fire sensors for safety - we got you covered for all cases!

The SAVE control system offers a variety of different control interfaces to fit needs of every customer. Combination of up to 10 control panels can be used!

These can be used in combination with each other - SAVE TOUCH control panel for advanced use and SAVE LIGHT for basic control functions. SAVE CONNECT enables both remote control/monitoring of the SAVE unit and possibility to configure it more easily by uploading configuration files stored in it or in your mobile device.



Mobile APP

Homesolutions mobile APP for remote configuration and control of the unit. Mobile application offer full unit control and configuration functionality - completely eliminating the need for additional control panels, while in addition offering a possibility for remote service and control of the unit.



Store configuration

Store the configuration file in the IAM, copy it to one or more units for faster installation - no Internet connection required.

Modbus TCP gateway

Internet Access Module as Modbus TCP over TCP/IP gateway.



SAVE CONNECT

Solution enabling the customer to remotely control the SAVE unit, manage unit configuration or integrate to BMS systems with Modbus TCP.



Connectors for external components

Connectors for external components (temperature, airflow control, safety, IAQ sensor, etc.) on the control units are clearly marked and grouped together to reduce installation and startup time.



Children living in houses with poor ventilation are at up to twice as much risk of suffering from asthma and allergies, compared with children living in houses with good ventilation.

x2

Environmental responsibility

The EU has pledged to reduce the use of energy in accordance with global climate targets, i.e. to reduce energy consumption by 20% by 2020 and 50% by 2050. To succeed in this, FTX ventilation and other measures are required in homes both old and new.

Here at Systemair we are aware of the responsibility we bear for our environment, and our primary contribution to modern environmental protection is efficient energy usage. You will encounter the Green Ventilation symbol in our product brochures – this indicates intelligent technology in harmony with the environment.

Energy-efficient ventilation

To get the best possible indoor air, and indoor climate, you need optimal ventilation. And that is exactly what you get with SAVE from Systemair. SAVE is a series of efficient heat recovery ventilation units that are tailored for individual homes, smaller offices and similar premises.

All SAVE units fulfil the market's high demands for low energy consumption and sound levels. State-of-the-art EC technology ensures that the fans are energy-efficient and contribute to low SFP (Specific Fan Power) values and fulfills the requirement in the European Ecodesign directive. All units technical performance is certified by the independent certification program Eurovent.



SAVE ventilation units recover up to 90% of the heat in the exhaust air and are available in various sizes for living spaces of up to 600 m².

A healthier home for immediate delivery

All SAVE units are supplied preprogrammed, tested and ready to install, helping you to bring fresh air to your home more easily. Servicing and maintenance are facilitated thanks to readily accessible replacement components. We have units with rotary heat exchangers and counter-flow heat exchangers in sizes to suit living spaces of up to 600 m².

These units are available with both top connection and side connection as standard for immediate delivery. Our heat recovery units can be positioned over stove, on wall, false ceiling or in the attic. The cold outdoor air is tempered and filtered so that the indoor climate is healthy and comfortable for you and your family, with no risk of draughts.

The EU Ecodesign Directive

Reduce environmental impact with product design

With Directive 2009/125/EC establishing a framework for the setting of ecodesign requirements for energy-related products, also known as the Ecodesign or ErP Directive, the EU has set minimum requirements for the energy efficiency of products.



The energy label should permit the end user to compare products easily, enabling them to select energy-efficient products. In contrast to other electrical equipment, the energy classes on the labels of residential ventilation equipment are determined by a calculated parameter, the specific energy consumption, or SEC. This value should display the energy-saving potential of the equipment used in kilowatt hours per m² per year.

SEC Class	SEC in kWh/a.m ²
A+ (highest efficiency)	SEC < -42
A	-42 ≤ SEC -34
B	-34 ≤ SEC -26
C	-26 ≤ SEC -23
D	-23 ≤ SEC -20
E (lowest efficiency)	-20 ≤ SEC -10
F (not available)	-10 ≤ SEC -0
G (not available)	0 ≤ SEC

Table 1: SEC value and energy class assignment.

There are a number of new requirements in the field of ventilation and air conditioning:

Fans

EU 327/2011 (B2B, no label)

- Since 2013, minimum requirements apply for fans above 125 Watts regarding energy efficiency
- From January 1, 2015, these requirements have become significantly more stringent

Non-residential ventilation unit

EU 1253/2014 (B2B, no label)

- From January 1, 2016 minimum requirements with regard to:
 - Fan energy consumption
 - Efficiency of the heat recovery

Residential ventilation unit

EU 1253/2014 and 1254/2014 (B2C, label)

- Minimum requirements from January 1, 2016: The units must save at least as much primary energy (electricity and heat) as they use (electricity)
- Minimum requirements from January 1, 2018: The units must save significantly more primary energy than they use – the ventilation heat requirement of the residential building will be approximately halved
- Energy efficiency class from A+ to G (see Table 1)

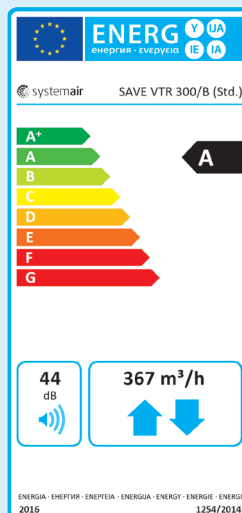
Air conditioners

EU 206/2012 (B2C, label)

- Since January 1, 2013, units with a cooling performance up to 12 kW are classified in energy efficiency classes from A+++ to D
- Units in cooling mode must fulfil at least the requirements of energy efficiency class A

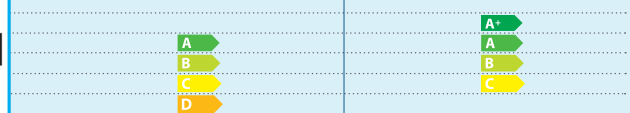
Central residential ventilation unit with heat recovery

Efficiency is not only influenced by known parameters such as electrical power consumption or heat recovery, but, to a great degree, by the mode of operation as well. So a given unit may achieve a better energy class when operated according to demand (E.g., moisture and CO₂ sensors influence the air quantity), than in a time-controlled or manually-controlled version.



Time controlled

Demand controlled



Unit characteristic
Sound power level at reference airflow at 50 pa
↓
Max airflow at 100 pa external



Energy-efficient ventilation for all kinds of homes



The Eurovent-certified SAVE series includes a wide selection of energy-efficient ventilation units with modern designs to suit both houses and apartment blocks. All SAVE units surpass market requirements for a healthy indoor climate and low energy consumption. All units are suitable for use in both new and renovated buildings and always come preprogrammed, tested and ready to install. All you have to do is “plug & breathe”.

Air handling unit	SAVE VTC 200	SAVE VTC 300	SAVE VTC 500	SAVE VTC 700
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Energy efficiency class

Standard unit	A	A	A	A
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Standard unit with accessories	A+	A+	A	A+
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Technical data

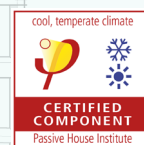
Design up to living space	m ²	180	240	400	550
Qref at 50 Pa	l/s m ³ /h	52/187	71/255	117/421	166/599
Qmax at 100 Pa	l/s m ³ /h	74/267	101/364	167/602	237/856
Sound power level (LwA)	dB(A)	45	40	43	41
Efficiency heat recovery	%	92	86	84	87
Filter, Supply air		G4/Coarse65% F7/ePM1 60%*	F7/ePM1 60% F8/ePM1 70%*	F7/ePM1 60% F8/ePM1 70%*	F7/ePM1 60% F8/ePM1 70%*
Filter, Extract air		G4/Coarse65%	M5/ePM10 50%*	M5/ePM10 50%	M5/ePM10 50%
Duct connections	mm	125	160	200	250
Max. power, fan(s)	W	85	85	170	170
Electrical heater	W	-	1670*	1670*	4500*
Recommended fuse	A	10	10	13	10
Width	mm	660	762	880	1170
Height (with connection box)	mm	845	883	880	1250
Height (without connection box)	mm	750	800	800	1175
Depth	mm	594	615	615	860
Weight	kg	47	72	82	160
Isolation of casing	mm	30/EPP	30	30	30
Condensate connection		1/2" (2 x)	1/2" (2 x)	1/2" (2 x)	1/2" (2 x)

Application

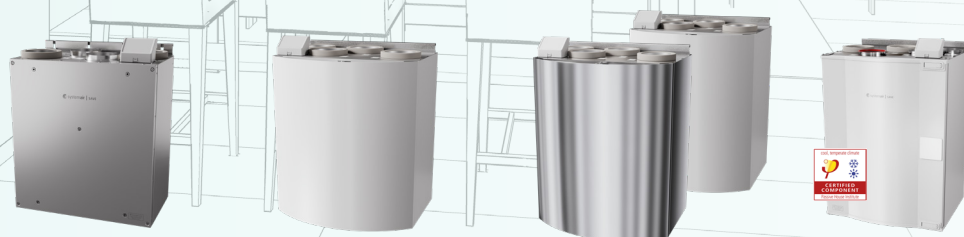
Flats	•				
Single-family house	•	•	•		
Apartment building, centrally		•		•	
Light commercial		•	•	•	
Built in cooker hood					

Connection for external cooker hood

*Available as accessories.



Air handling unit	SAVE VTR100/B	SAVE VTR 150/B	SAVE VTR 150/K	SAVE VTR 250/B
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Energy efficiency class

Standard unit	A	B	B	A
Standard unit with accessories	A	A	A	A

Technical data	Right		Left		Right		Left	
	Right	Left	Right	Left	Right	Left	Right	Left
Design up to living space	m ² 100	115	115	115	115	115	200	
Qref at 50 Pa	l/s m ³ /h 29/105	50/181	54/195	50/181	54/195	50/181	60/215	
Qmax at 100 Pa	l/s m ³ /h 42/150	72/258	77/278	72/258	77/278	72/258	85/307	
Sound power level (LwA)	dB(A) 41	41	42	41	42	41	40	
Efficiency heat recovery	% 85	76	76	76	76	76	81	
Filter, Supply air	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	
	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	
	F7/ePM1 60%*	F7/ePM1 60%*	F7/ePM1 60%*	F7/ePM1 60%*	F7/ePM1 60%*	F7/ePM1 60%*		
Filter, Extract air	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 55%	
	M5/ePM10 55%*	M5/ePM10 55%*	M5/ePM10 55%*	M5/ePM10 55%*	M5/ePM10 55%*	M5/ePM10 55%*		
Duct connections	mm 125	125	125	125	125	125	125	
Max. power, fan(s)	W 83	83	83	83	83	83	83	
Electrical heater	W 250*	500/1000		500/1000		500/1000	500/1000	
Recommended fuse	A 10	10	10	10	10	10	10	
Width	mm 561	596	596	596	596	596	598	
Height (with connection box)	mm 679	707	707	800	800	800	800	
Height (without connection box)	mm 600	630	630	720	720	720	800	
Depth	mm 322	368	368	465	465	465	490	
Weight	kg 39	46	46	61	61	61	56	
Isolation of casing	mm 30	30	30	30	30	30	30	
Condensate connection	-	-	-	-	-	-	-	

Application

Flats	•	•	•	•	•	•	•
Single-family house		•	•	•	•	•	•
Apartment building, centrally							
Light commercial							
Built in cooker hood				•	•		
Connection for external cooker hood	•	•	•				•

*Available as accessories.



Experience Systemair solutions in an unprecedented way with HVAC PRODUCTS – brand-new, web-based Augmented Reality platform. Please scan the scannable code on your mobile device to visit experience.systemair.com.

SAVE VTR 300/B	SAVE VTR 500	SAVE VTR 700	SAVE VSR 150/B	SAVE VSR 300	SAVE VSR 500
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A	A	A	A	A	A
A	A	A+	A	A	A
240	400	550	100	240	400
68/246	111/400	185/666	33/118	71/257	118/426
97/351	159/572	264/951	48/168	102/367	168/608
40	47	39	37	42	51
85	84	81	85	85	84
F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%	F7/ePM1 60%
F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*	F8/ePM1 70%*
M5/ePM10 50%	M5/ePM10 55%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%	M5/ePM10 50%
160	200	250	125	160	200
83	170	170	35	83	170
1670	1670	1670*	500	1670	1670
10	13	13	10	10	13
762	920	1170	1150	1150	1150
878	885	1250	303	595	645
802	800	1175	303	595	645
491	584	815	655	505	595
70	85	188	50	65	77
30	30	30	30	50	50
-	-	1/2"	-	-	-

•	•			•	•
•	•	•		•	•
•			•		

Systemair around the globe



3

Distribution Centers

50

Countries with Sales Subsidiaries



27

Production Facilities

Always
close to you!

