



Decentralized home ventilation .

IS IT:

Product

Technology

Equipment

APPLICABLE FOR:

Restoration

Rehabilitation

New Construction

APPLICABLE ON:

1. Foundations and underground structures

2. Vertical structures

3. Horizontal structures and vertical connections

4. Roof and terraces

5. Façade and building envelope

6. Finishes and completion elements

7. Integrated services

8. General strategies for building recovery

Related companies: SmartFan® - the innovative ventilation system with heat recovery.

DESCRIPTION

Good ventilation is more than just having fresh air. It is fundamental to feeling good at home. Being able to take deep breaths of oxygen reduces stress and makes us generally feel better. Security and protection are often underestimated as positive aspects of decentralised home ventilation.

Without adequate ventilation, rooms become damp and mould might even start to develop. Through regulating the indoor climate, you can help preserve the building's structure, while at the same time increasing its value.

The traditional system of opening a window to air a room lets warm air escape, pushing up energy requirements. Decentralised home ventilation with heat recovery prevents this. Before being expelled, heat is recovered from the spent air. A simple principle saving large amounts of energy, thus cutting energy bills.

WHY TO USE

Its integrated sensors measure a room's temperature and humidity level, enabling it to automatically select the right mode for achieving optimal ventilation. This in turn allows occupants to stop worrying about too high humidity levels or wasted heating energy. Thanks to the SmartFan S, they can always enjoy a comfortable climate in all rooms. The SmartFan® S is controlled via the modern TOUCH control unit, which also offers a wide range of modes in manual operation.

HOW TO USE AND APPLY

The ventilator expels warm spent air for 70 seconds.

The ceramic thermal storage unit recovers the valuable heat until the unit's capacity is reached.

The ventilator then changes direction, blowing fresh outside air into the room. The cold incoming air is warmed by the heat previously stored.

Once the stored heat has been completely released, the fan changes direction and a new cycle begins.

The getAir® easyFan is a compact ventilation system with heat recovery. All that is needed to install it is a core-drilled hole through an outside wall. This represents a major advantage over conventional ventilation systems

which work with ducts throughout the house. Installation is flexible and uncomplicated, making the easyFan suitable for retrofitting in the context of upgrading a house to modern energy-saving standards. On account of its modular design, maintenance and servicing require little effort. Once fitted, the easyFan helps you not only to save valuable heating energy, but also to keep follow-on costs in check.

The individual components of the easyFan slot into the 160 mm-diameter installation cylinder one after another. Installation requires no tools - just slot in the components. Ultra-compact and quiet, they offer top performance. The individual components of the easyFan slot into the 160 mm-diameter installation cylinder one after another. Installation requires no tools - just slot in the components. Ultra-compact and quiet, they offer top performance.

TECHNICAL CHARACTERISTICS

Technische Daten Technical data



SmartFan®

Allgemein General						
Wärmebereitstellungsgrad, η_{Wb}	Heat recovery rate, η_{Wb}	%	91			
Wärmebereitstellungsgrad, $\eta_{\text{Wb, ERP}}$	Heat recovery rate, $\eta_{\text{Wb, ERP}}$	%	83			
			Stufe 1 Level 1	Stufe 2 Level 2	Stufe 3 Level 3	Stufe 4 Level 4
Volumenstrom ¹⁾	Airflow volume ¹⁾	m ³ /h	18	28	38	46
Schalldruckpegel ²⁾	Sound pressure level ²⁾	dB(A)	11	19	28	33
Leistungsaufnahme ³⁾	Power consumption ³⁾	W	0,8	1,4	2,6	4,0
Spezifische Eingangsleistung ³⁾	Specific power consumption ³⁾	W/m ³ /h	0,09	0,10	0,14	0,17
Eingangsspannung	Input voltage	V	42 DC			
Schutzart	Type of protection	-	IP 42			
Schutzklasse	Appliance class	-	II			
Normschallpegeldifferenz D_{w}	Sound level difference D_{w}	dB	min. 44			
Betriebstemperatur	Operating temperature	°C	-20 - +60			
Abmessungen Dimensions						
Mindestwandstärke ⁴⁾	Minimum wall thickness ⁴⁾	mm	280			
Optimale Wandstärke	Optimal wall thickness	mm	360			
Wandöffnung	Wall opening	mm	Ø 162			
Innenabschluss (BxHxT)	Inside cover (WxHxD)	mm	198 x 199 x 45			
Außenabschluss (BxHxT)	Outside cover (WxHxD)	mm	198 x 199 x 45			
Gewicht	Weight	kg	4,6			
Zulassungen Certifications						
Energieeffizienzklasse ⁵⁾	Energy class ⁵⁾	-	A			
Energieeffizienzklasse mit Plug-In Sensor ⁶⁾	Energy class with Plug-In sensor ⁶⁾	-	A+			
DIBt Geschäftszeichen	DIBt reference number	-	GZ III 56-1.51.3-19/16			
Konformität	Conformity	-	CE			

¹⁾ Bei paarweisem Betrieb. When operated in pairs.
²⁾ Ermittelt in 2 m Abstand unter Freifeldbedingungen im Zuluftbetrieb. Determined in 2 m distance under free field conditions at supply air operation.
³⁾ Ohne Netzteil. Without power supply.
⁴⁾ Mit gekürzter Lüfter-Einheit und Metall-Außenhaube. With shortened fan unit and metal outside cover.
⁵⁾ Gemäß VO 1254/2014 EU. Acc. REG 1254/2014 EU.

Heat recovery unit is selected according to the volume of the premises. The device will not work efficient if we choose too powerful device, but if it is chosen too weak devices the indoor microclimate will not be ensured.

The main characteristics of heat recovery unit is heat recovery rate. The higher it is, the higher temperature air is supplied to the premises. For example: if temperature inside is 21 °C, outside 0 °C, heat recovery rate 91%, the supplied air temperature will be 19 °C without additional heating of air. In cold climate countries it is necessary to have additional air heating, because of cold air heat recovery unit can freeze.

RECOMMENDATIONS AND OTHER INFORMATION

EASYFAN ADVANTAGES AT A GLANCE:

- 162 mm core-drilled hole
- Up to 90% heat recovery
- Cut heating bills by up to 50%
- Low purchase and installation costs
- Quick and cost-efficient cleaning
- Simple cleaning and maintenance

EXAMPLES

<https://vimeo.com/284106065> @getAit

Wherever possible, SmartFans should be operated in pairs, i.e. with one unit blowing in fresh air and the other expelling spent air. The units change direction concurrently after 50 - 70 seconds (depending on the selected fan speed). This allows a room to be properly aired, balancing air inflow and outflow in accordance with DIN 1946-6. The integrated heat exchanger extracts and stores heat from the outflowing air. When the direction changes and fresh air is sucked in, it is warmed by flowing over the heat exchanger.

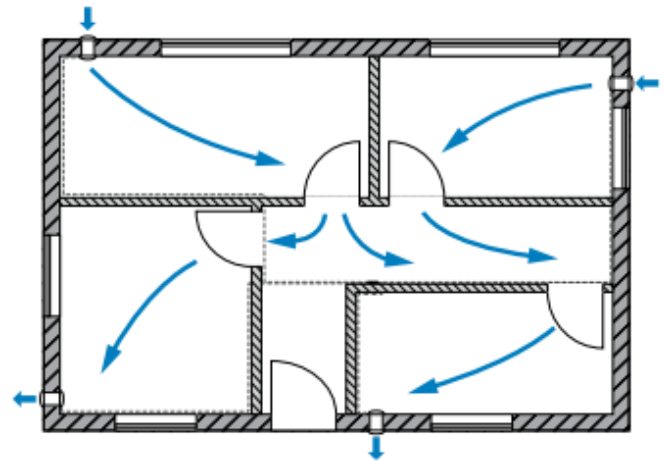


Fig.1: Example of optimal ventilation.

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REFERENCES / SOURCES AND LITERATURE

https://www.getair.eu/wp-content/uploads/2017/03/getAir_SmartFan_Broschuere_EN_WEB-1.pdf

https://www.getair.eu/wp-content/uploads/2017/03/getair_easyfan_broschuere_en_web-1.pdf

WEBSITE OF THE COMPANY

<https://www.getair.eu/en/>



IMAGES AND CAPTIONS



Fig.2: Heat recovery unit. ©<https://www.getair.eu/en/>

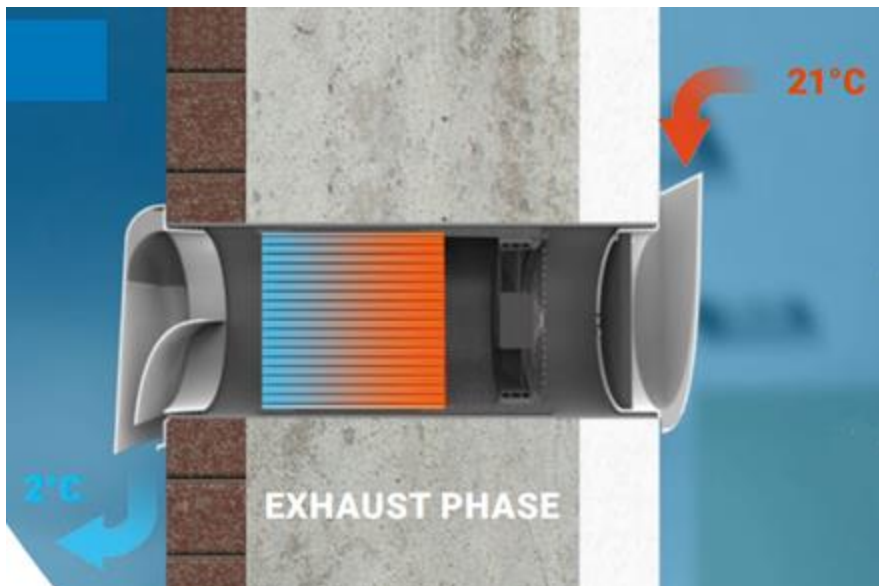


Fig.3: Heat recovery principle. ©https://www.getair.eu/wp-content/uploads/2017/03/getAir_SmartFan_Broschuere_EN_WEB-1.pdf

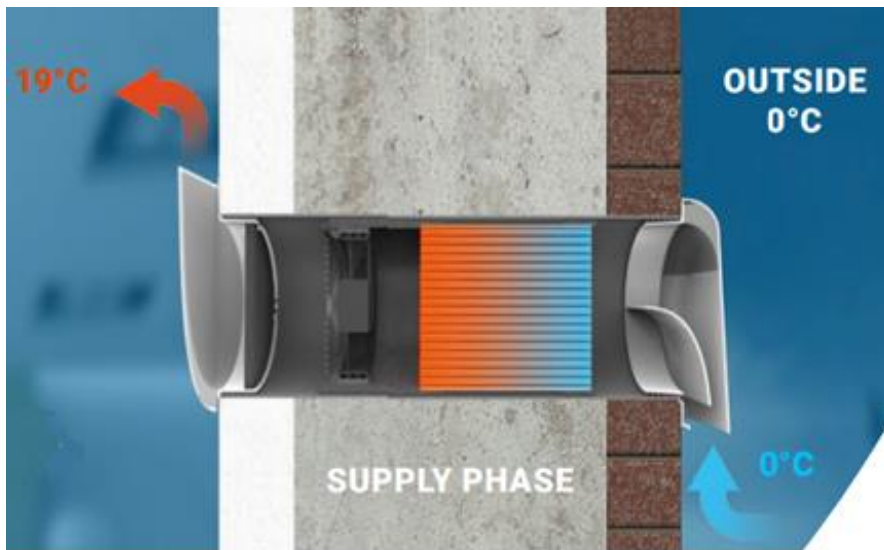


Fig.3: Heat recovery principle. ©https://www.getair.eu/wp-content/uploads/2017/03/getAir_SmartFan_Broschuere_EN_WEB-1.pdf