



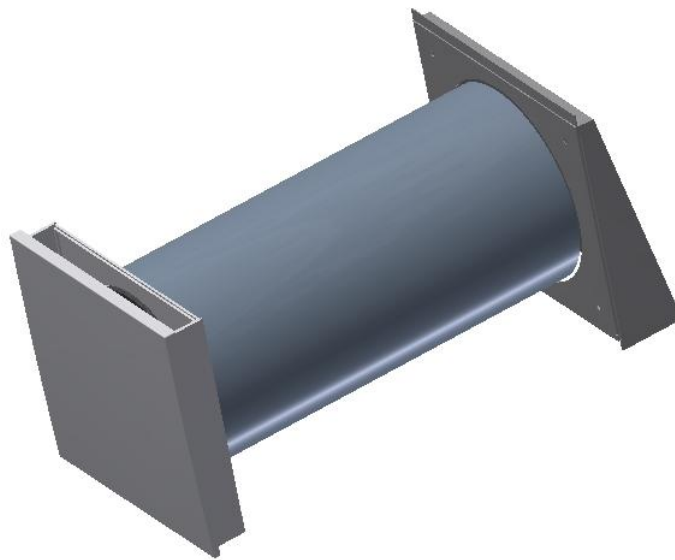
# SEVentilation

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## Assembly Manual

### SEVi 160/SEVi 160 PLUS – Ventilation System

(Intelligent ventilation system with heat recovery)



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## Notes

Explanation of the safety-relevant symbols and terms used in this manual:



**Danger:** indicates a danger with a high risk which can cause death or serious injuries if it is not avoided.



**Warning:** indicates a danger with a mean level of risk which can cause death or serious injuries if it is not avoided.



**Caution:** indicates a danger with a low level of risk which can cause slight or moderate injuries if it is not avoided.



**Note:** Failure to adhere to the instruction or guideline can damage the device or affect the proper functioning of the device.

For the purpose of this manual, the term qualified personnel refers to persons who have the appropriate professional education to perform the activities required (e.g. electrical installation, heating and ventilation installation) and know the relevant standards and regulations.

For proper disposal of packaging, separate it according to the specific material! If you want to dispose of the system, observe the current provisions! Contact the local authority for detailed information!



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## 1. General information referring to the Operating Manual

**Check the product for completeness (see packing slip) and transport damage immediately after receiving it! The product must be stored at a safe and dry place!**

**!** Adhere to the instructions in this Assembly Manual!

Please, observe the **approval regulations** and the applicable **construction provisions** as well as the **fire prevention regulation** and **accident prevention regulations** of the Employers' Liability Insurance Association when planning, installing and operating the system. When planning the ventilation system, details must be discussed with the responsible chimney sweeper and construction manager!

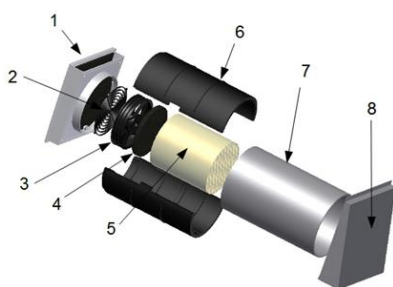
Before installation, contact your planner to get to know whether a RAL installation is required.

**Assembly works and electrical installations are to be carried out by qualified personnel!**

Use the ventilation system only in compliance with the applications described in this documentation and only in connection with components which have been recommended and approved by the company SEVentilation and are specified in this documentation.

Modifications or reconstructions of the ventilation system are not permitted. The correct and safe operation of the ventilation system is only possible, if it is properly transported, stored and mounted as well as carefully operated and maintained. This documentation is part of the ventilation system and must always be at hand. Observe all safety regulations included in this documentation.

The manufacturer shall not be held liable for damages caused by improper installation, connection and use of the system. The warranty will expire. The legal warranty periods shall apply according the General Terms and Conditions!




OBJECT	AMOUNT	DESIGNATION
1	1	interior panel with sound protection pad
2	1	safety grid
3	1	ventilator with acoustic decoupling
4	1	sound insulation element
5	1	heat accumulator
6	1	EPP casing (2-parts)
7	1	fixation tube
8	1	weather protection hood

SEVi 160 standard component drawing

The SEVi 160 ventilation system with heat recovery, which is available in different variants, is used for controlled living space ventilation.

## 2.Scope of delivery


### 2.1 Complete set

<ul style="list-style-type: none"> <li>- fixation tube, standard: 480 mm, (optional:650 mm and 850 mm)</li> <li>- fan drive</li> <li>- interior panel</li> <li>- weather protection hood</li> <li>- protective disc</li> </ul>	
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### 2.2 Completion set

<ul style="list-style-type: none"> <li>- fan drive</li> <li>- interior panel</li> </ul>	
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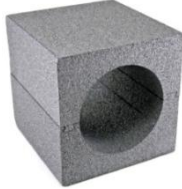
### 2.3 Preparation set

<ul style="list-style-type: none"> <li>- fixation tube (standard: 480 mm, optional:650 mm and 850 mm)</li> <li>- weather protection hood</li> <li>- protective disc</li> <li>- EPP cylinder</li> </ul>	
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## 2.4 PLUS variant (optional)

<ul style="list-style-type: none"> <li>- sound insulation element in weather protection hood (is already mounted in the weather protection hood)</li> <li>- 2 x sound insulation element in interior tube (can be adjusted to fixation tube length)</li> </ul>	
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## 2.5 Shell construction support (optional)

<ul style="list-style-type: none"> <li>- shell construction support Z160-RBT</li> </ul>	
---	---

### ! Note:

- Ventilation system is always controlled via the control unit.
- System must not be operated in rooms with high dust rate.
- System must not be operated in rooms in which decomposing gases are used.
- System is not suited for drying out buildings.
- The ventilation system shall only be started up after the completion of the construction works.
- The ventilation system is to be closed during the construction works.
- Temperature range of application: -20°C to +75°C

## 3. Assembly

### ! Note:

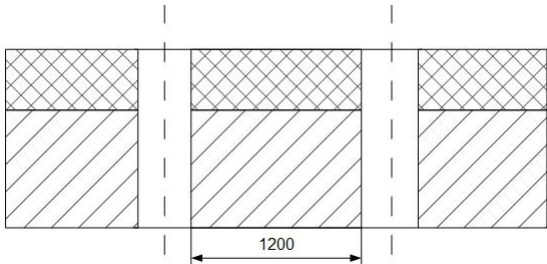
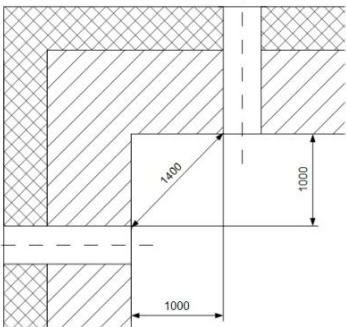
Study the complete Assembly Manual carefully before starting the installation to avoid possible installation errors! The installation of the ventilation system requires prior thorough planning by the responsible construction manager!

Faulty installation can cause trouble in the operation of the ventilation system and can void the warranty. The ventilation system must be installed by qualified personnel!

All optional parts do not belong to the standard scope of delivery and are available at extra charge.

### 3.1 Positioning of the wall opening

Generally, the place of installation is determined during the creation of the ventilation plan. Observe the minimum distances indicated for the different installation variants! -> **see also page 16!**

<p><b>Minimum distance to adjacent objects (windows, doors, etc.)</b></p>	<p>! Ensure that the minimum distances are maintained on both sides of the wall! -&gt; <b>see page 16</b></p> <p>The positioning aids on <b>page 16</b> can be used for orienting at window or door edges! Observe the kind of material of the wall!</p> <p><b>Exterior:</b> A clear minimum distance of 300 mm upwards is required from the centre of the wall opening for mounting the weather protection hood (or 200 mm from the upper edge of the lower part) <b>(The mounting weather protection hood will pushed downwards).</b></p> <p><b>Interior:</b> The distance from the centre of the wall opening to the room ceiling must not be less than 350 mm because a clearance of 250 mm upwards is required for mounted interior panel.</p>
<p><b>Minimum distances between two ventilation devices (e.g. in case of installation in the same wall)</b></p>	<p><b>horizontal or vertical:</b></p>  <p><b>adjacent walls:</b></p> 

## 3.2 Installation process

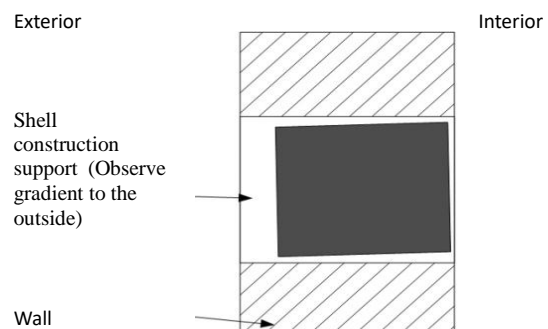
### 3.2.1 Producing the wall opening

When the position of the wall opening has been determined (**3.1 and p. 16**), the opening with a diameter of minimally 165 mm and maximally 170 mm (180 – 200 mm are possible in case of subsequent plasterwork) is preferentially produced by a coredrill in the exterior wall. For this purpose, the drilling direction from the inside to the outside is recommended. The gradient to the outside must be considered for a bore diameter of 165 mm!

**Optional:** Use of the **shell construction support Z160-RBT**

Instead of being inserted through a tapping drill hole, the fixation tube can also be installed into the wall by using the shell construction support Z160-RBT.

1. Produce the wall opening of 250 x 250 mm for the shell construction support in the exterior wall.
2. Mount one or several shell construction support/s (depending on the wall thickness) according to the installation instruction for the fixation tube. **Pay attention to the gradient of 1-2% to the outside! Insert the fixation tube before fixation and fix it by using a mounting adhesive suited for PP and EPS!**
3. Flush-plaster the shell construction support surfaces or adapt them to the wall level. Reduce projections according to 3.2.2 (interior: flush, exterior: only the fixation tube shell protrude by 5 mm).



**! Note:**

**Following installation, the shell construction support surface must be adapted to the walls by plasterwork or similar techniques!**



**Note:** The use of suited insulation material anchor bolts is recommended for mounting the weather protection hoods in combination with the shell construction support!

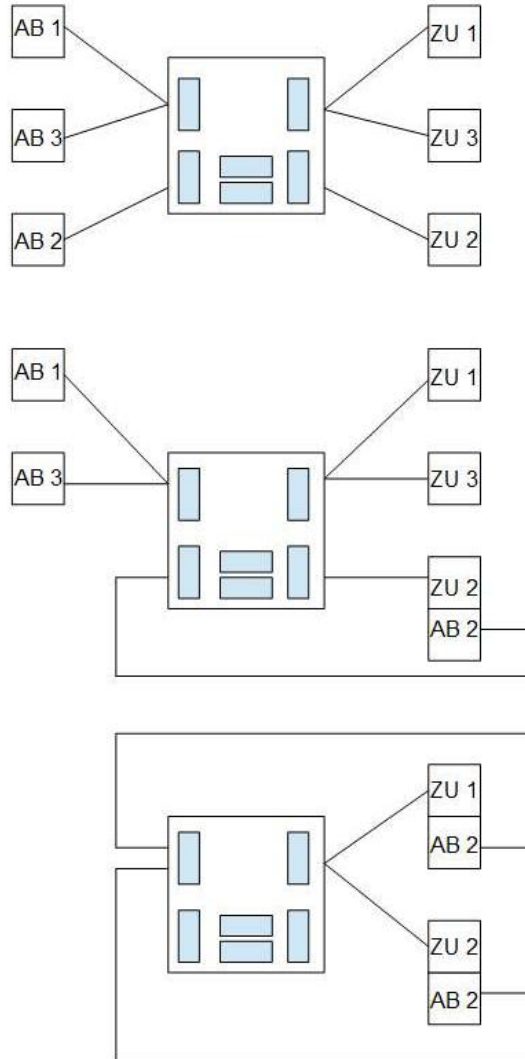




**Note:**

**Please, observe the Assembly Manual SEC-20, SEC-20-BF or SEC-Touch!**

Examples for the allocation and combination SEVi 160 and SEVi160DUO



ZU 1

**SEVi 160 single device:** fan pair 1  
- start direction supply air

AB 1

**SEVi 160 single device:** fan pair 1  
- start direction exhaust air

ZU 1  
AB 1

**SEVi 160 DUO:** fan pair 1  
- observe **opposite** start direction

A SEVi 160 DUO requires  
**2 supply lines!**



**Note:** An individual cable (LIYY 3 x 0.5 mm<sup>2</sup> or 3 x 0.75 mm<sup>2</sup>) is to be laid from **each fan** to the distributor board! **Two cables must** be laid for the **double fan SEVi 160 DUO!**

## 3.2.2 Installing the fixation tube

- A – exterior
- B – brickwork
- C – interior wall area, incl. plastering/wall pater
- D – foaming area
- E – separation line
- F – fixation tube
- G – insulation, incl. plastering

**! Before the fixation tube is mounted into the wall, a notch with a depth of about 3x10 mm is to be produced on the inside to lead the cable (without coating) in the fixation tube to the ventilator!**

1. Insert the fixation tube (F) with a gradient of about 1-2 % to the exterior by using cotter pins (to be cut out of the piece of foamed polystyrene included in the scope of delivery). Flush end of the fixation tube on the interior wall side (C); **5 mm** shall protrude on the exterior wall side (A).

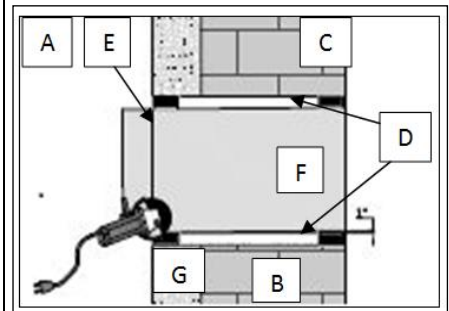
**! Observe for installation performed before plasterwork!**

If the plasterwork has not been finished yet, a protrusion on both sides according to the later plasterwork thickness is to be taken into consideration when cutting the fixation tube length (after plastering, the tube must be flush-mounted with the plaster inside and protrude by **5 mm** on the exterior). Notch the tube on the interior wall side (**Remove cable coating!**) to lead the connection cable through.

2. Slide the fan drive or EPP cylinder into the tube before foaming to prevent a tube deformation.
3. Adhere possible vapour barrier with fixation tube.
4. Mount the protective disc onto the tube end.
5. Fill the clearance between the tube and the wall by using a two-component assembly frame foam (protect the storefront against the foam). Cut off protruding foam and cotter pins after completed drying.

Tools required:

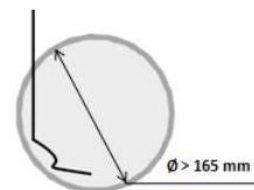
- circular saw element for drilling machine,
- angle grinder with plastic cut-off wheel or handsaw,
- level



1.



Cable LIYY 3 x 0,5 mm<sup>2</sup>



**Remove cable coating!**

2. - 5.






### 3.2.3 Mounting the weather protection hood

The stainless steel weather protection hood protects the ventilation system so that precipitation or rain cannot directly enter the system. Additional measures must be taken for increased requirements, e.g. in case of salty air, chlorine-containing air or rust film!

Weather protection hood: - upper part + lower part of stainless steel, bright  
 (optionally available: white powder-coated RAL 9010 or iron grey powder coated RAL 7011)  
 - sealing tape, 4 stainless steel screws + anchor bolts for assembly  
 (optional: insulation material anchor bolts and adjustment frame 110 mm)

Required tools: - impact drill, level, screw driver TX 20, knife

<p>1. Fix the sealing tape at the rear side of the lower part (adjustment of wall and lower part).</p> <p>A distance of about 60 mm is to be maintained centrally in the lower area! The inner sealing tape and the outer sealing tape must not contact each other in this area!</p>	
<p>2. Mount the lower part horizontally at the facade (drip edge downwards to the outside). For doing this, put the lower part onto the protruding fixation tube, align it by using the level, mark bore holes and mount it by using the anchor bolts and screws included in the scope of delivery.</p>	
<p>3. Fix the sealing tape at the rear side of the upper part (hood) and in the edges (strips with a length of about 1 cm each).</p>	

4. Slide the hood from above onto the lower part after the completion of the facade works (depending on the accessibility, the protection film of the stainless steel type can also be removed after finishing paintwork).

If required, the weather protection hood can be additionally sealed to the wall above and to the sides by a permanently elastic sealant).



**For highly-insulated outer facades, sufficient protection against algae growth must be ensured!**

### 3.2.4 Installing the fan drive

Insert the fan drive up to the end of the tube at the weather protection hood so that the ceramic part shows to the exterior wall side, i.e. insert it as far as possible towards the exterior wall.

If necessary, remove the burling before insertion (in case of very difficult insertion).

The **sound insulation element optionally available** for the interior tube of the SEVi 160 PLUS is positioned in the fixation tube after sliding in the fan drive. (260 mm are to be reduced from the length of the fitted fixation tube for the length required for the sound insulation element.)

The fan drive comprises a filter insert, a reversing and moisture-protected ventilation unit, heat accumulator, protection grid, sound insulation element.

A pollen protection filter is optionally available.

Insertion of the fan drive

(The image on the right shows the optionally available sound insulation element of the PLUS variant.)



#### **Important:**

The condensation discharge (identifiable by the ventilator cables) must be positioned at **6 o'clock!**



### 3.2.5 Mounting the interior panel (opening upwards)

The interior panel is supplied completely with dust filter in opened condition.

1. Insert the lower part of the interior panel into the tube. If necessary, the lower part can be screwed to the wall. For this purpose, four prepared holes are provided at the rear side and can be easily penetrated. The bore holes are marked after aligning the lower part by means of the level. After mounting the lower part, the upper part can simply be slid onto it.



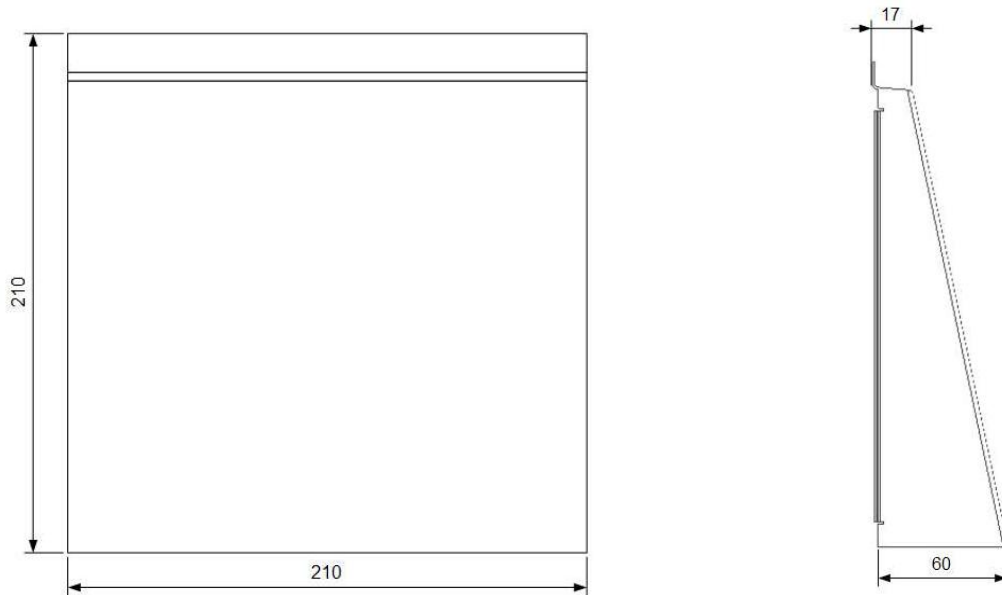
**! Note:** When using the optionally available glass interior panel, it is recommended to screw it to the wall!

2. The opening of the interior panel should ideally show upwards (to avoid draught effects). If the installation conditions do not allow this, the interior panel (complete) can also be turned to the right, left or downwards.

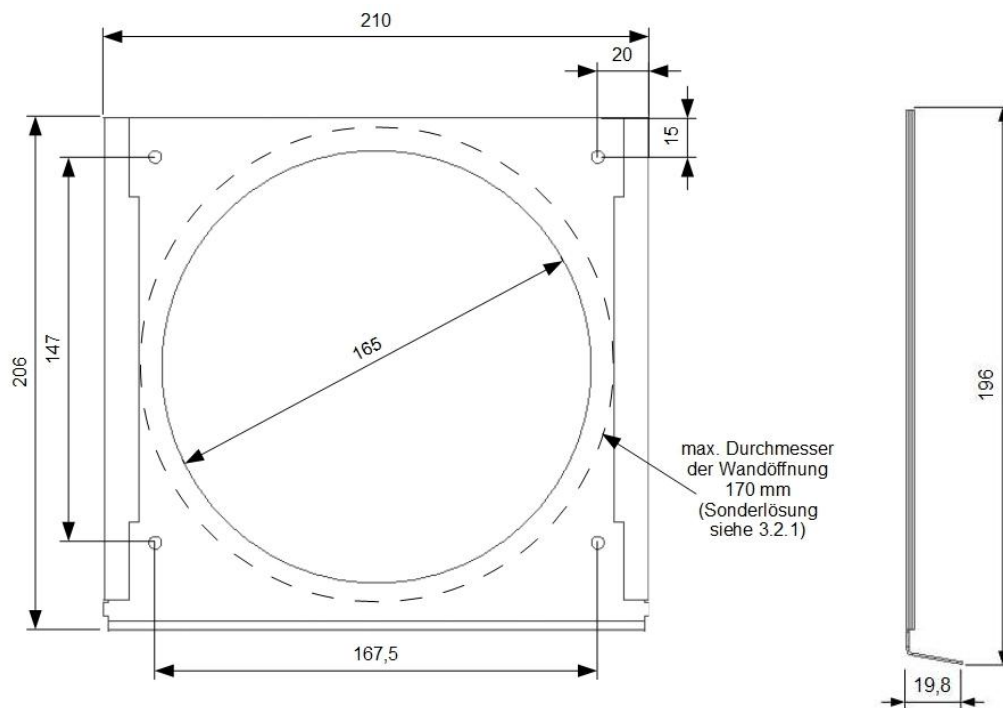


### Dimension of weather protection hood

- upper part

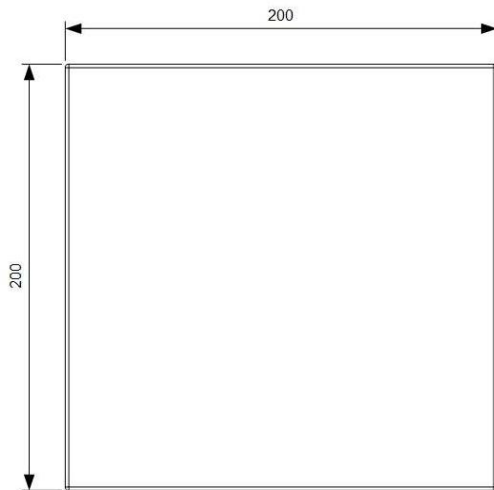


- lower part

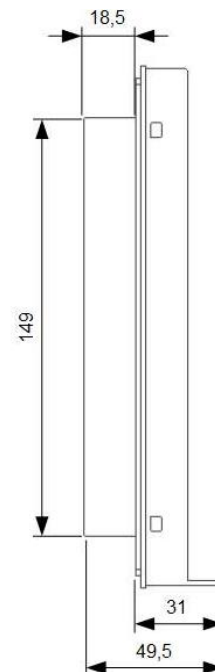
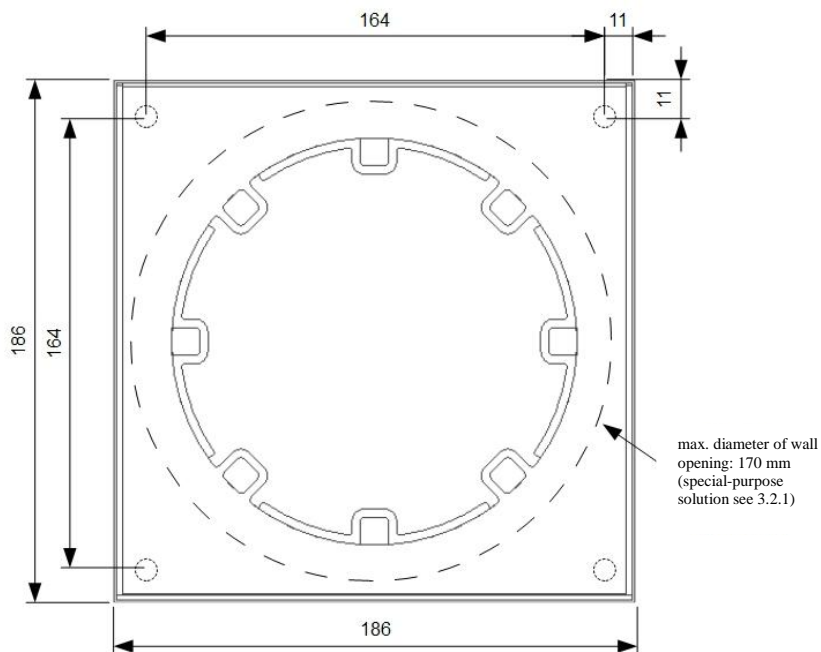


### Dimension of the interior panel

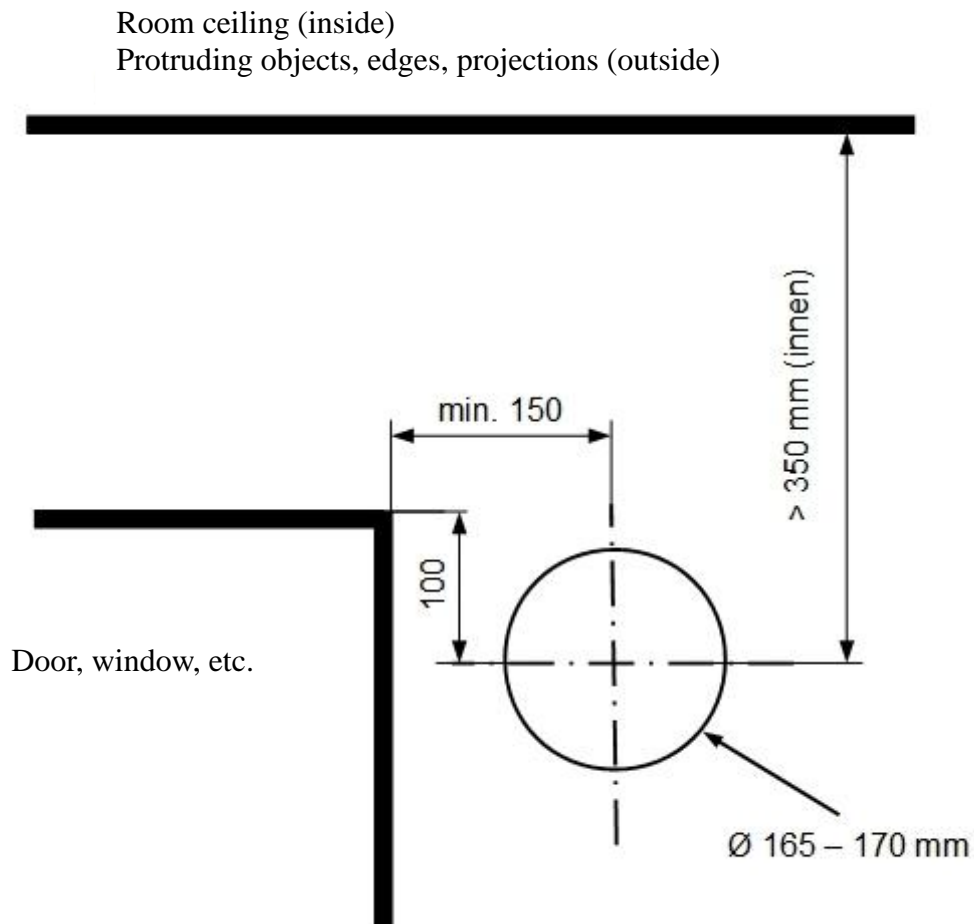
- upper part



- lower part



## Positioning aid for core hole drilling



The lateral distance of at least 150 mm is to be considered as an approximate value and can, depending on the situation, be increased!



### **Note concerning the exterior hood:**

On the exterior, a free space of at least 300 mm must be kept above the hood for sliding on the upper part!



## EC Declaration of Conformity

The company

**SEVentilation GmbH**  
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Germany

declares under its sole responsibility that the products:

type: **SEVi 200 / SEVi 200U / SEVi 200L / SEVi 160 / SEVi 160DUO / SEVi 160U / SEVi 160L / SEVi 160R / SEVi 160CE / SEVi 160RO / SEVi 160ALD / A160**  
(decentral ventilation devices with and without heat recovery),

to which this declaration refers, comply with the following standards and normative documents:

EN 55014 -1; 2006

EN 55014 -2; 1997, +A1; 2001

EN 61000-6-1, 2007; Generic Standards EMC – Immunity

EN 61000-6-3, 2007; Generic Standards EMC – Emission Standard

EN 61000-3-2, 12.2001; Low-Frequency System Perturbation

EN 61000-3-3, 1.1998

EN 60335-1, EN 60335-2-65; (safety of household and similar electrical appliances)

according to the provisions in the Directive 2004/108/EC or (EMC 2008), the Directive 2006/95/EC (Low Voltage Directive) and the RoHS Directive 2002/95/EC.

The decentral ventilation systems: “**SEVi 200 / SEVi 200U / SEVi 200L / SEVi 160 / SEVi 160DUO / SEVi 160U / SEVi 160L / SEVi 160R / SEVi 160CE / SEVi 160RO / SEVi 160ALD / A160**” with and without heat recovery are used for the ventilation of apartments/accommodation units.

Kahla, 10/12/2015



Dipl.Wirt.Ing. (FH)\* Nico Schellenberg

*\*Graduate Industrial Engineer*



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**The manufacturer reserves the right to change technical details!**

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