

## ASSEMBLY INSTRUCTIONS

# AEROPLUS WRG





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### 1 About this documentation

#### 1.1 Original operating instructions

These instructions are part of the original operating instructions. The operating instructions consist of the following sections:

- assembly instructions
- operating and service instructions

#### 1.2 Read the instructions

These instructions are an important document and part of the product. Only the defined procedures are safe. Persons can be injured or material damage could occur if these instructions are not observed.

Read and observe the instructions completely prior to the installation of the product.

#### 1.3 Producer

SIEGENIA-AUBI KG  
Industriestraße 1 – 3  
57234 Wilnsdorf  
Germany

You can find the addresses of our worldwide locations here: [siegenia.com/company/locations](https://siegenia.com/company/locations)

Entry in the Commercial Register:

- Registry court: Siegen District Court
- Register number: HRA 3741

#### 1.4 Target group

This information is intended for producers of construction elements, fitters and retrofitters.

Producers of construction elements are considered to be all those who perform the following activities:

- fabricate SIEGENIA products in window elements or door elements

Fitters and retrofitters include all persons who carry out the following activities:

- SIEGENIA install and repair products in a building project
- install and repair window elements or door elements that are equipped with SIEGENIA products in a building project
- retrofit window elements or door elements with SIEGENIA products

#### 1.5 Applicable information

Note the following applicable information prior to installation.

- Product data sheet in accordance with EU Regulation 1254/2014

[link.si/td/wans011/1223](https://link.si/td/wans011/1223)



- Operating and service instructions AEROPLUS WRG [link.si/td/wans010/1123](https://link.si/td/wans010/1123)



## 1.6 Figures and symbols

### 1.6.1 Installation situation



Installation from inside



Installation from outside

## 2 Safety

### 2.1 Intended use

- The product is a ventilation system for ventilating and extracting air from closed rooms.
- The product is suitable for installation in outside walls of fixed buildings.
- The product is not suitable for targeted dehumidification (e. g. drying out new buildings or concealing defects or deficiencies in the construction).

### 2.2 Requirements for the target groups

#### 2.2.1 Producers of construction elements

We assume and require that producers of construction elements possess the following knowledge and skills:

- knowledge of the regulations concerning occupational safety and accident prevention
- comprehension of technical correlations based on the latest scientific and technological knowledge
- knowledge of professional work steps
- knowledge of the applicable standards and directives
- knowledge of applicable testing regulations
- knowledge and skills relating to the professional fixing of technical elements
- knowledge of the requirements of profile system providers
- knowledge and skills relating to the professional fabrication of electrical components
- knowledge and skills relating to the following work steps:
  - connecting electrical components
  - putting electrical components into operation
  - Checking the function of electrical components
- knowledge of the following 5 safety rules:
  - disconnect
  - secure to prevent reconnection
  - ensure system is voltage-free
  - earth and short-circuit
  - cover or isolate proximate live parts

SIEGENIA provides training to enable you to acquire some of the knowledge and skills needed. Contact your SIEGENIA sales consultant if this is required.

### 2.2.2 Fitters and retrofitters

We assume and require that fitters and retrofitters possess the following knowledge and skills:

- knowledge of the regulations concerning occupational safety and accident prevention
- comprehension of technical correlations based on the latest scientific and technological knowledge
- knowledge of professional work steps
- knowledge of the applicable standards and directives
- knowledge and skills relating to the professional use of electrical and mechanical tools
- knowledge and skills relating to the professional fixing of technical elements
- knowledge and skills relating to the professional fabrication of electrical components
- knowledge and skills relating to the following work steps:
  - connecting electrical components
  - putting electrical components into operation
  - Checking the function of electrical components
- knowledge of the following 5 safety rules:
  - disconnect
  - secure to prevent reconnection
  - ensure system is voltage-free
  - earth and short-circuit
  - cover or isolate proximate live parts

SIEGENIA provides training to enable you to acquire some of the knowledge and skills needed. Contact your SIEGENIA sales consultant if this is required.

## 2.3 Safety notes

### Risk of poisoning from combustion fumes

A vacuum can be created when this ventilation unit is operated simultaneously with a heat-producing appliance (such as a stove or gas heater). The vacuum could cause exhaust fumes to enter the room, resulting in poisoning.

- Have the ventilation compound in your home checked by an accredited chimney sweep.
- For ventilation units that permanently run in exhaust air operation, install a safety device in consultation with the accredited chimney sweep.

### Risk of poisoning from contaminated air

When the ventilation unit is in operation, hazardous substances can enter the room, resulting in poisoning.

- If the air drawn in contains hazardous substances, switch off the ventilation unit.

### Risk of explosion due to electrical sparks

When operating the product in environments with an explosive atmosphere, electrical sparks may cause an explosion. Explosive atmospheres are created, for example, by flammable liquids, steam, gas or dust.

- Do not use the product in environments with an explosive atmosphere.

### Risk of injury from using unsuitable components

Components, accessories and spare parts which do not comply with SIEGENIA requirements can impair the safety of the product and lead to accidents.

- Use original parts or components that comply with the SIEGENIA requirements. If in doubt, seek confirmation from SIEGENIA.

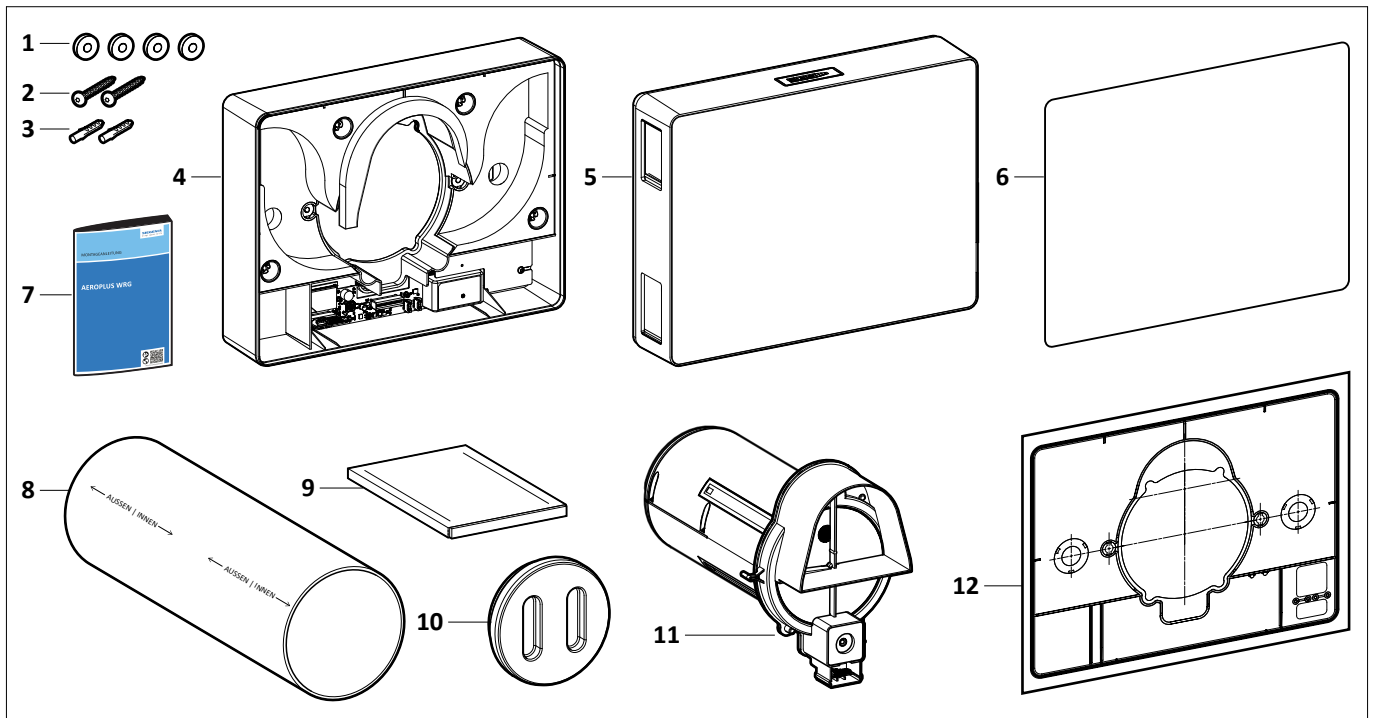
# Assembly instructions

AEROPLUS WRG

## 3 Product specifications

### 3.1 Scope of delivery

#### 3.1.1 AEROPLUS WRG / AEROPLUS WRG smart



Item	name	Quantity
1	Foam insert	4 (2x spare)
2	Screw $\varnothing$ 5x50	2
3	Dowel $\varnothing$ 8	2
4	Wall-mounted module	1
5	Casing module	1
6	Front panel	1
7	Assembly instructions	1
8	Ventilation pipe	1
9	Divider	1
10	Mounting cover	1
11	Pipe module	1
12	Drilling template	1

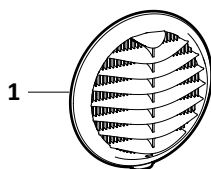
**3.1.2 Required components**

**Required components - external components**

The listed components are required to establish the function.

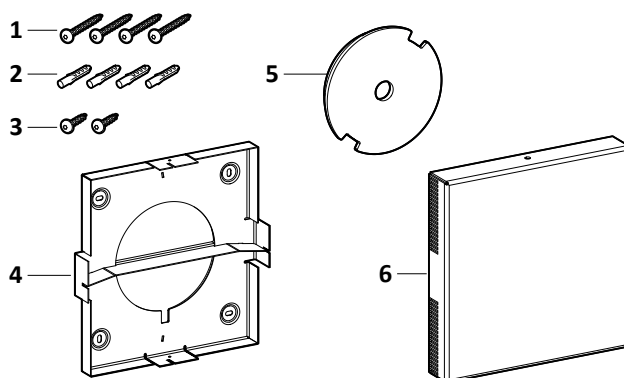
Electively, the following variants are appropriate for the external components:

**variant 1: PVC weather grille**



Item	name	Quantity
1	PVC weather grille D 160	1

**variant 2: stainless steel weather grille hood**

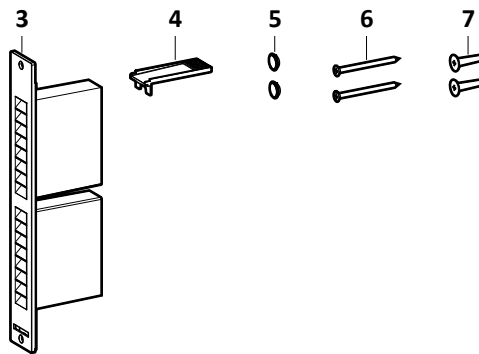
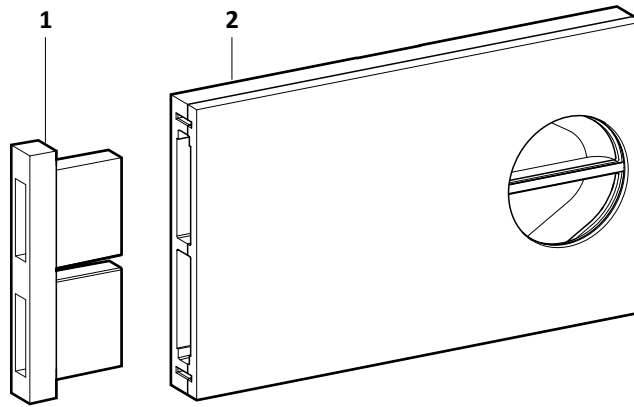


Item	name	Quantity
1	Screw $\varnothing$ 4x50	4
2	Dowel $\varnothing$ 6	4
3	Screw M3x4	2
4	Wall fixing for weather grille hood	1
5	Plaster cover for weather grille hood	1
6	Stainless steel weather grille hood	1

# Assembly instructions

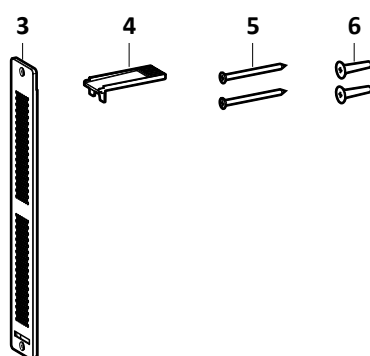
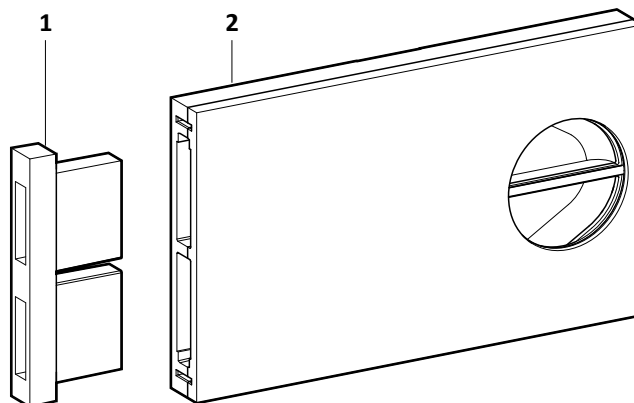
AEROPLUS WRG

## variant 3: vent duct EPP with PVC outer panel



Item	name	Quantity
1	Vent duct EPP type FL for AEROPLUS WRG	1
2	Plaster cover for vent duct	1
3	PVC outer panel	1
4	Drainage duct	1
5	Cover cap	2
6	Screw $\varnothing$ 4.5x60	2
7	Dowel $\varnothing$ 6.5	2

variant 4: vent duct EPP with aluminium outer panel



Item	name	Quantity
1	Vent duct EPP type FL for AEROPLUS WRG	1
2	Plaster cover for vent duct	1
3	Aluminium outer panel	1
4	Drainage duct	1
5	Screw $\varnothing$ 4.5x60	2
6	Dowel $\varnothing$ 6.5	2

# Assembly instructions

AEROPLUS WRG

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## Required components - supply air filter

The listed components are required to establish the function.

Electively, the following variants are available for the supply air filter:

### variant 1: supply air filter ISO Coarse 45%



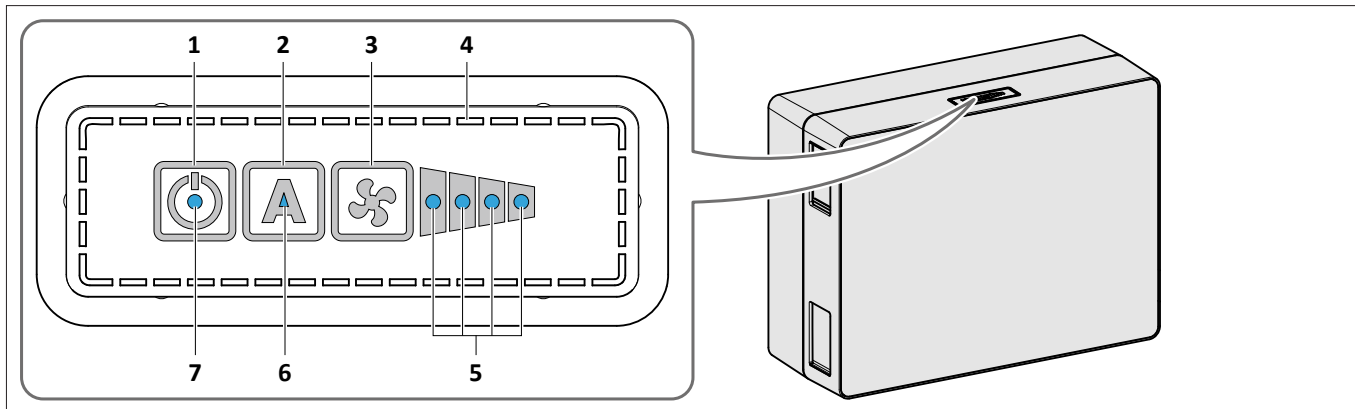
### variant 2: supply air filter ISO ePM1 50%



### variant 3: supply air filter NOx

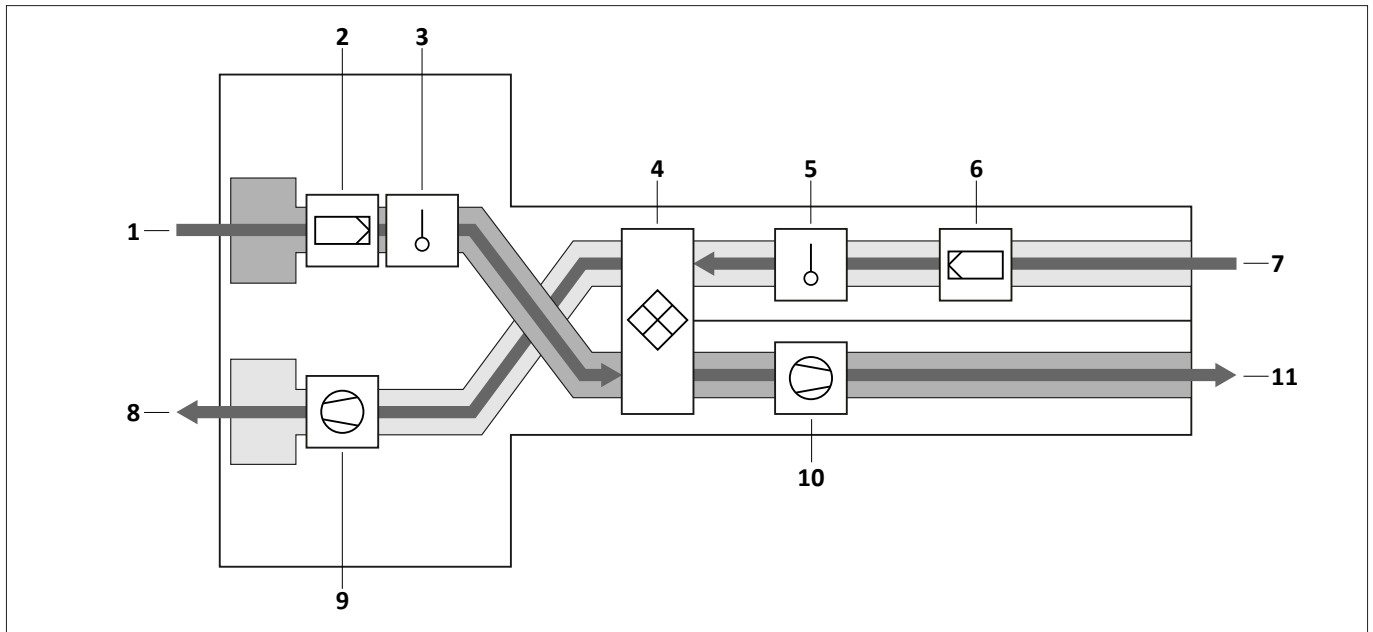


**3.2 Touch control**



Item	name	Purpose
1	ON/OFF button	<ul style="list-style-type: none"> <li>Switches the device on and off.</li> <li>Switches the heat recovery on or off when pressed and held.</li> <li>Produces a beeping sound when heat recovery is switched on or off.</li> </ul>
2	AUTO button	<ul style="list-style-type: none"> <li>Switches automatic mode on and off.</li> <li>Opens the menu navigation when pressed and held.</li> </ul>
3	Blower level button	<ul style="list-style-type: none"> <li>Toggles through the blower levels.</li> <li>Resets the filter replacement indicator when pressed and held.</li> </ul>
4	Opening slots	<ul style="list-style-type: none"> <li>Enable a constant flow of indoor air around the sensors to ensure the indoor air conditions can be correctly measured.</li> </ul>
5	Blower level LEDs	<ul style="list-style-type: none"> <li>Light up blue depending on which blower level is activated.</li> <li>The outer left LED flashes blue when the condensate and frost protection control is active.</li> </ul>
6	AUTO LED	<ul style="list-style-type: none"> <li>Lights up blue when automatic mode is switched on.</li> <li>Flashes blue when the filter needs replacing.</li> </ul>
7	Status LED	<ul style="list-style-type: none"> <li>Briefly lights up blue when the device is switched on.</li> <li>Lights up blue continuously when heat recovery is activated.</li> <li>Lights up white when heat recovery is deactivated.</li> <li>Flashes green while an external switch input is active (e.g. bathroom control).</li> <li>Lights up or flashes in different colours while the menu navigation is displayed.</li> <li>Lights up or flashes orange or red when there is an error.</li> </ul>
-	Buzzer	<ul style="list-style-type: none"> <li>Produces a beeping sound during operation and when there is an error message.</li> </ul>

### 3.3 Operation



Item	name
1	Exhaust air
2	Filters
3	Sensor
4	Rotation heat exchanger
5	Sensor
6	Filters
7	Outside air
8	Supply air
9	blower
10	blower
11	Exhaust air

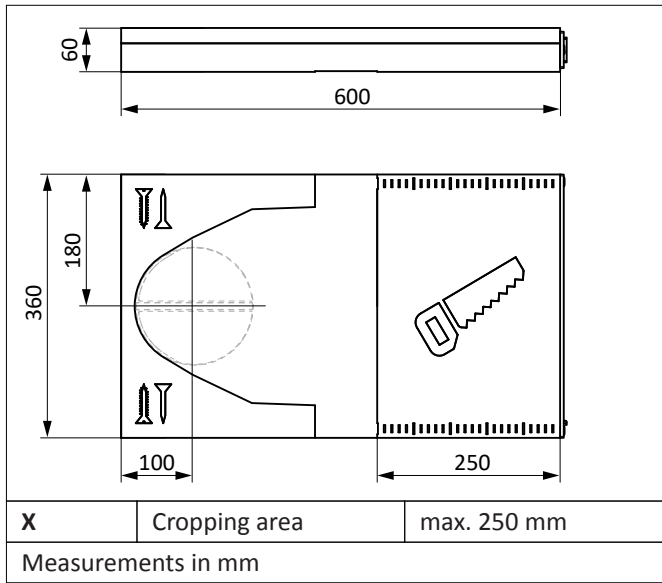
AEROPLUS WRG is a bidirectional ventilation unit (including heat recovery) for ventilation of closed rooms. The exchange of air is accomplished using supply air fans and exhaust air blowers with heat recovery.

### 3.4 Dimensions

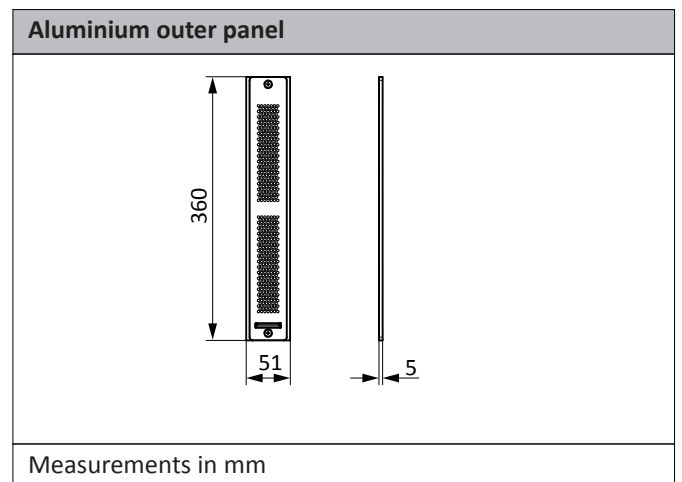
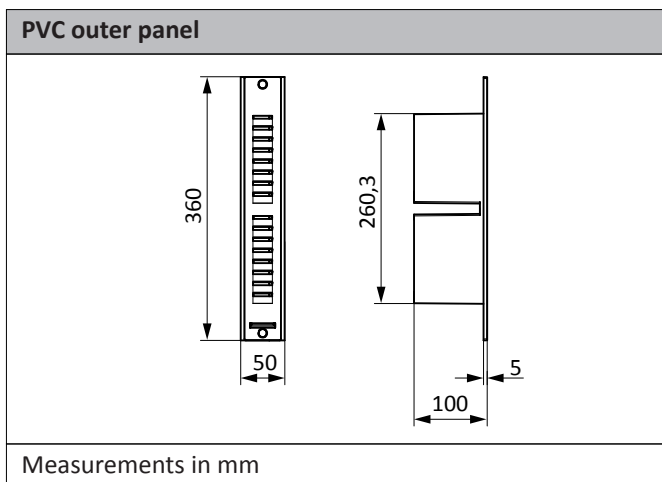
#### 3.4.1 Dimensions of AEROPLUS WRG and weather grippe variants



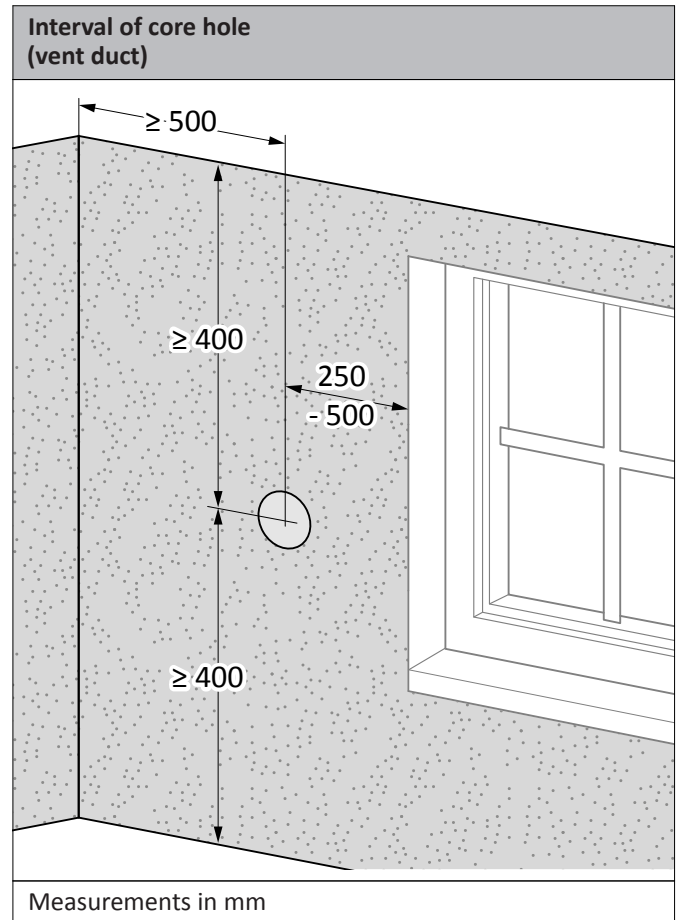
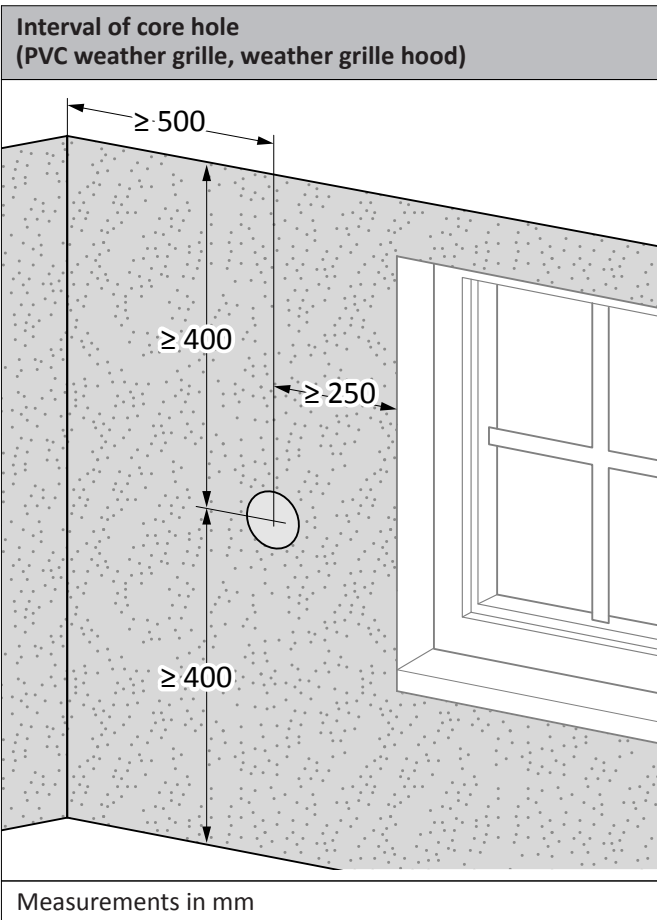
### 3.4.2 Dimensions of vent duct



### 3.4.3 Dimensions of outer panels for vent duct



### 3.5 Processing dimensions



# Assembly instructions

AEROPLUS WRG

**Wall recess for partially recessed installation**

min. 310

min. 410

max. 80

Measurements in mm

**Wall thickness for PVC weather grille and weather protection hood**

$\geq 280 - \leq 500$

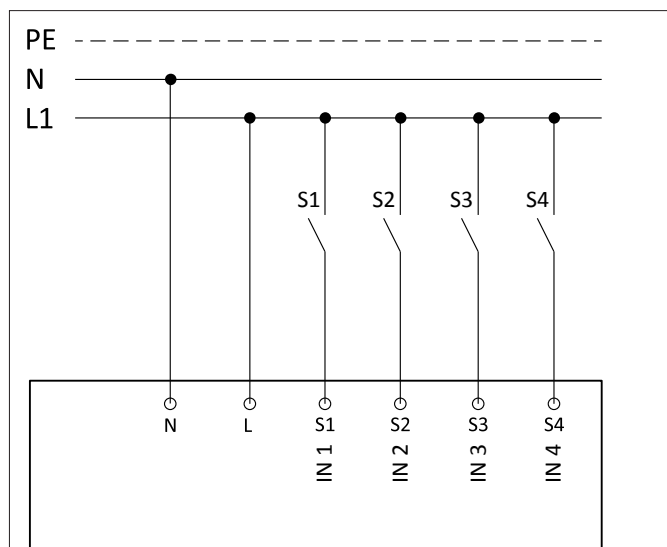
Measurements in mm

**Insertion dimensions of ventilation pipe for vent duct**

<b>A</b>	insertion depth of ventilation pipe in vent duct	15 mm
<b>B</b>	Back-up insulation of vent duct (combine insulation plates according to required thermal insulation)	
<b>C</b>	wall thickness incl. plaster	
<b>X</b>	Length of ventilation pipe	Insertion depth <b>A</b> + back-up insulation <b>B</b> + wall thickness <b>C</b>

Measurements in mm

### 3.6 Electrical connection



L1	Phase
N	Neutral conductor

Function	IN 1	IN 2	IN 3	IN 4
Blower level 1	•			
Blower level 2		•		
Blower level 3			•	
Blower level 4	•	•		
Blower level 5	•		•	
Auto		•	•	
Bathroom control				•
Night ventilation			•	•

### 3.7 Technical specifications











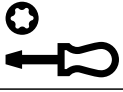

		AEROPLUS WRG	AEROPLUS WRG smart
Power consumption	Blower level 1	5 W	6 W
	Blower level 2	6 W	7 W
	Blower level 3	7 W	8 W
	Blower level 4	10 W	11 W
	Blower level 5	15 W	17 W
Supply voltage		230 V AC	230 V AC
Supply frequency		50 Hz	50 Hz
Operating voltage		24 V DC	24 V DC
Protection class		II	II
Weight		5.6 kg	5.6 kg
Permissible operating temperature		-15 – +40°C	-15 – +40°C
Length of connecting cable		5 m	5 m




### 4 Installation

#### 4.1 Preparing for installation

1. Remove the product carefully from its packaging and place it on a soft surface (e.g. cardboard or a blanket).
2. Check the product for cleanliness prior to installation. Clean it thoroughly if necessary.

#### 4.2 Tooling and work equipment

Tooling	
	Permanent marker, white
	Spirit level
	Folding rule
	Masking tape
	Core hole drill $\varnothing$ 178 – 182 mm
	Power drill
	Drill $\varnothing$ 6 mm
	Drill $\varnothing$ 8 mm
	Angle grinder
	Hand-held circular saw
	Saw
	Screwdriver T20
	Pointed pliers

Work equipment	Intended use
	Install and seal the product in conformity with RAL and in accordance with the latest technological standards.
	<ul style="list-style-type: none"> <li>• inside: airtight, outside: breathable</li> <li>• Install and seal the product in conformity with RAL and in accordance with the latest technological standards.</li> </ul>
	Depending on the condition of the wall, replace the enclosed dowels with suitable fasteners on site.

### 4.3 Installation of ventilation pipe and PVC weather grille

**! NOTICE**

**Material damage due to holes in the wall**

Concealed cables or pipes can be damaged while drilling the core hole.

- Ensure that there are no cables or pipes in the installation area of the wall.
- Use a suitable detection device to check for cables and pipes.

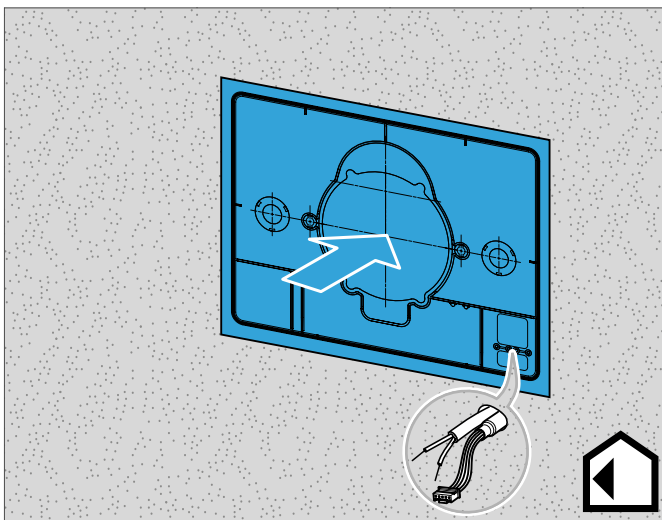
**! NOTICE**

**Material damage due to incorrect angle when drilling the core hole**

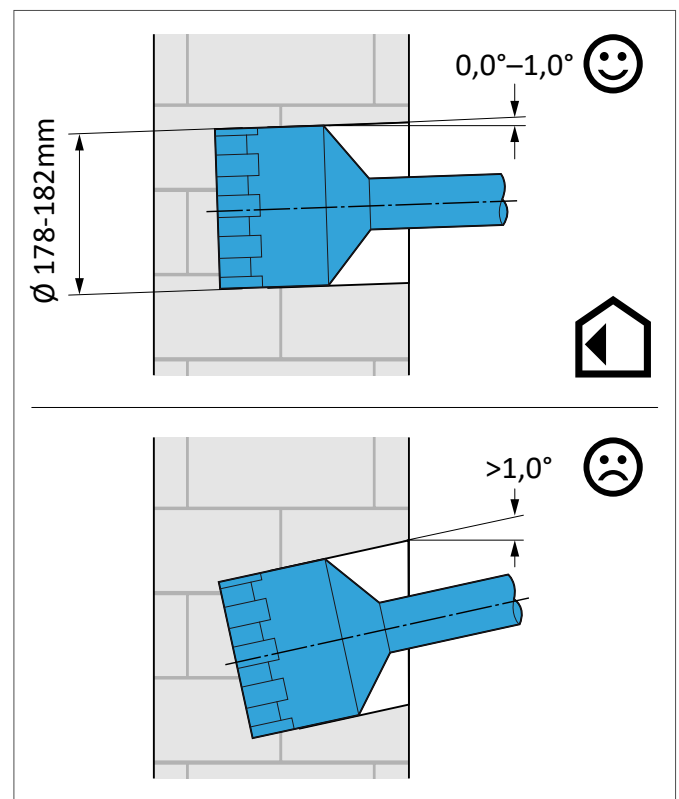
If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Drill the core hole to the outside from the room.
- Drill the core hole at an angle of  $0.0^\circ - 1.0^\circ$ .

1. Fix the drilling template to the wall. Be mindful of the intervals from the core hole when doing so, Processing dimensions (see page 17).



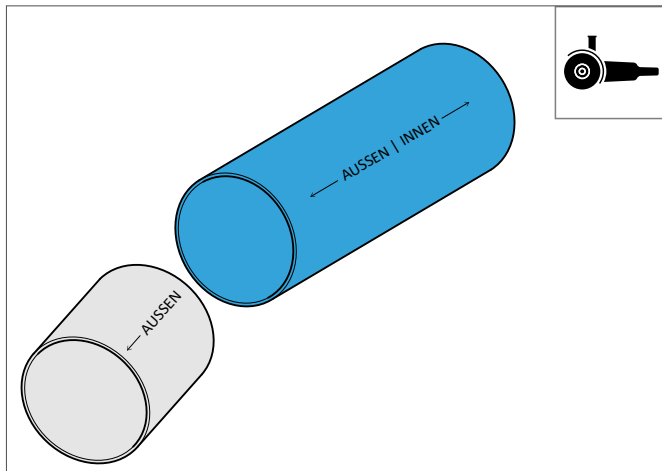
2. Drill the core hole.



# Assembly instructions

## AEROPLUS WRG

3. Trim the pipe to the wall thickness, Processing dimensions (see page 17).



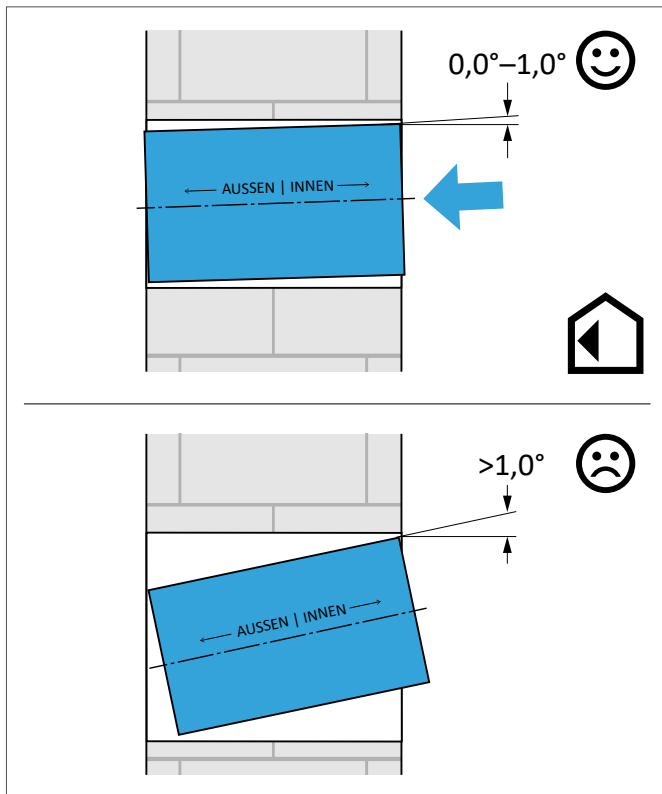
### ! NOTICE

#### Material damage due to incorrect angle of the ventilation pipe

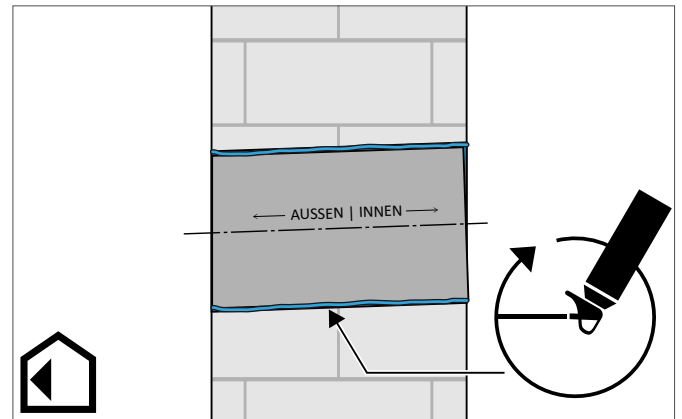
If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Install the ventilation pipe at an angle of  $0.0^\circ - 1.0^\circ$ .

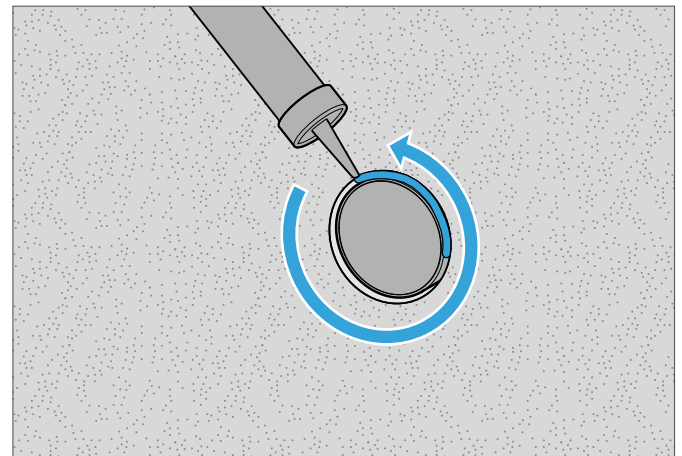
4. Insert the pipe with the plaster cover into the wall.



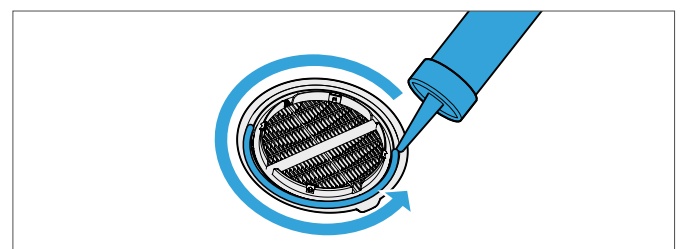
5. Insulate the pipe as far as the plaster cover (depending on requirements).



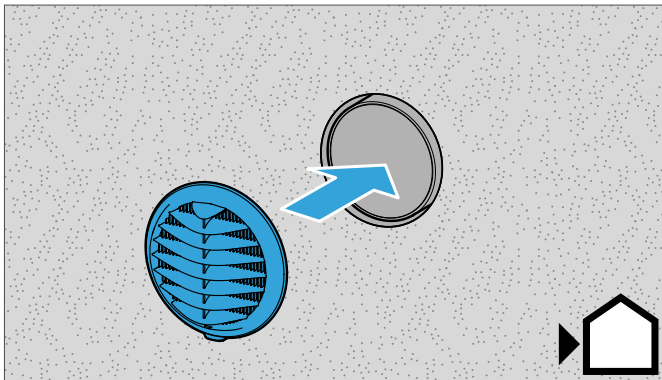
6. Seal the pipe so that it is airtight to the inside and breathable to the outside.



7. Apply the sealant to the weather grille.



- Position the weather grille and press firmly against the wall. Ensure that the fins are pointing downwards.



#### 4.4 Installation of ventilation pipe and weather grille hood

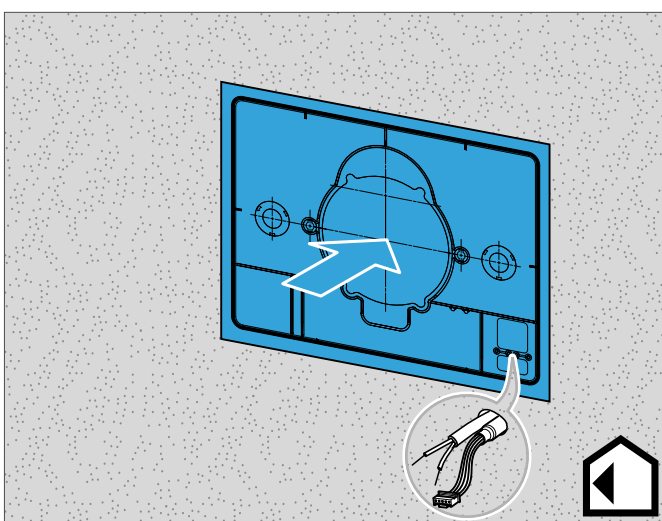
##### ! NOTICE

##### Material damage due to holes in the wall

Concealed cables or pipes can be damaged while drilling the core hole.

- Ensure that there are no cables or pipes in the installation area of the wall.
- Use a suitable detection device to check for cables and pipes.

- Fix the drilling template to the wall. Be mindful of the intervals from the core hole when doing so, Processing dimensions (see page 17).



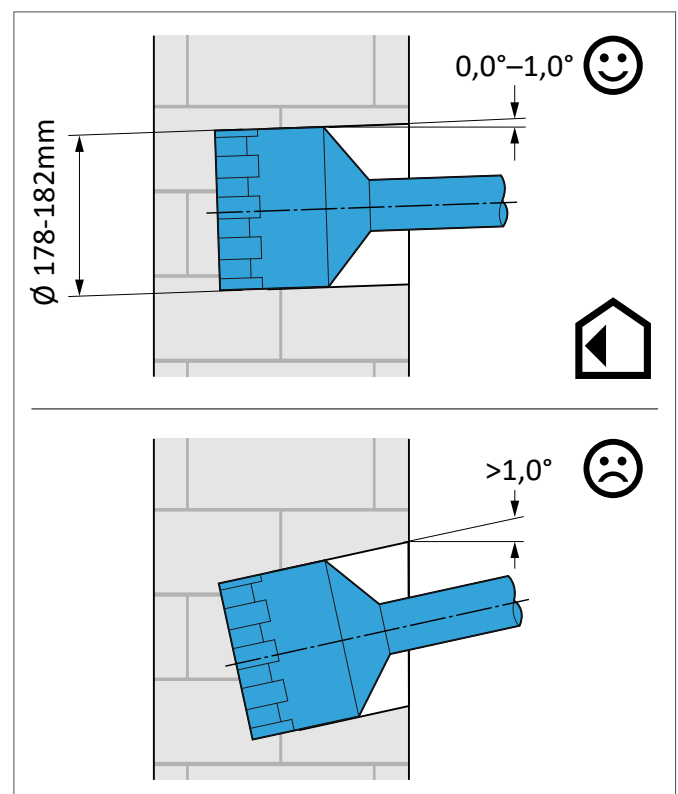
##### ! NOTICE

##### Material damage due to incorrect angle when drilling the core hole

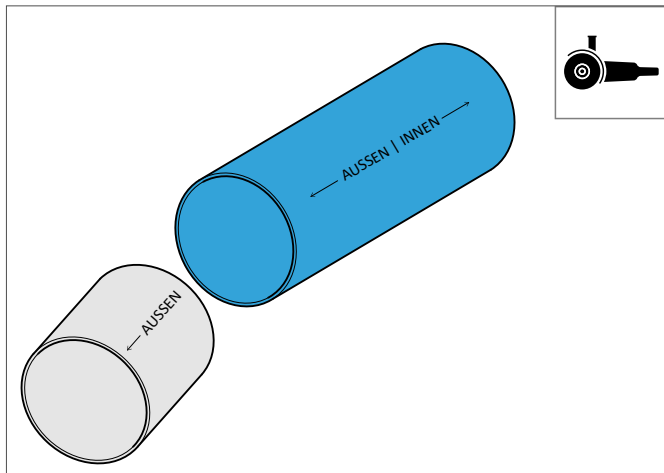
If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Drill the core hole to the outside from the room.
- Drill the core hole at an angle of  $0.0^\circ - 1.0^\circ$ .

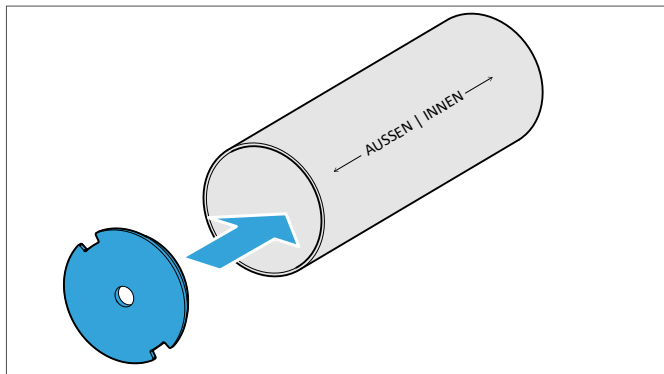
- Drill the core hole.



3. Trim the pipe to the wall thickness, Processing dimensions (see page 17).



4. Push the plaster cover onto the trimmed end of the pipe.



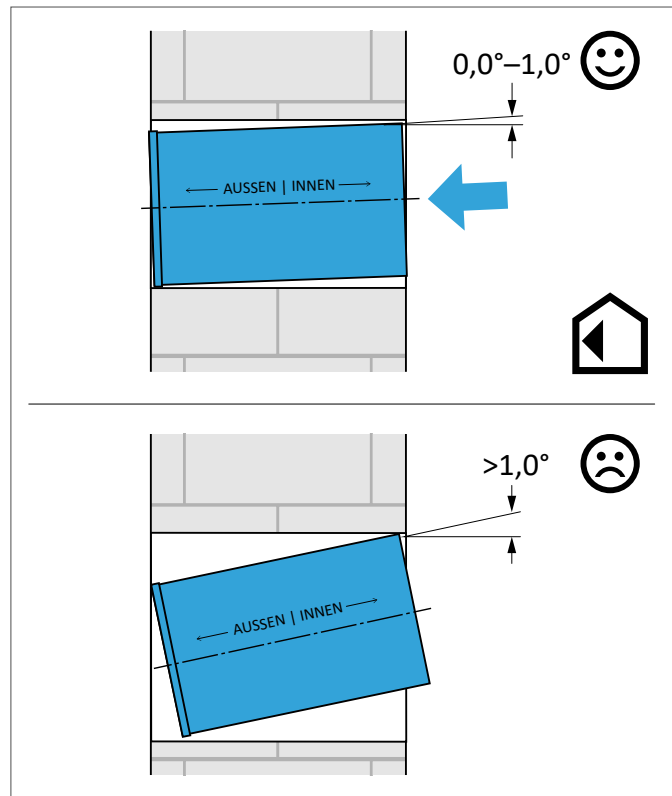
### ! NOTICE

#### Material damage due to incorrect angle of the ventilation pipe

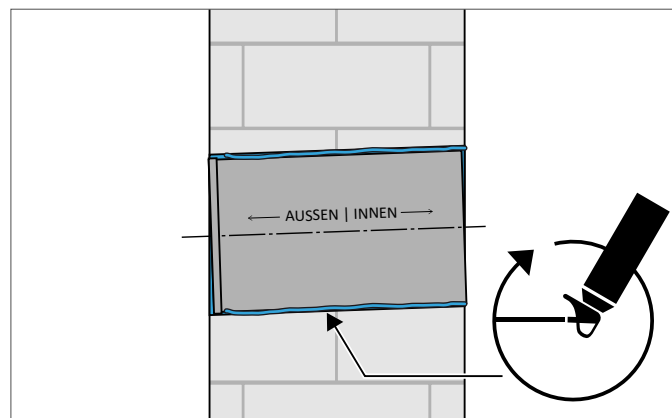
If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Install the ventilation pipe at an angle of  $0.0^\circ - 1.0^\circ$ .

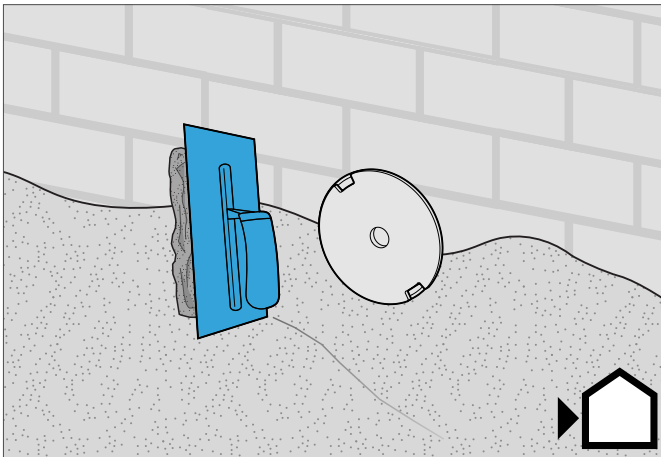
5. Insert the pipe with the plaster cover into the wall.



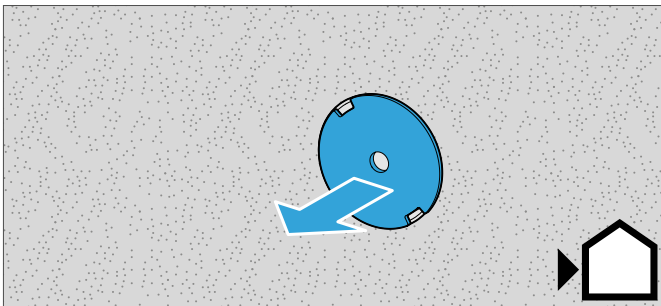
6. Insulate the pipe (depending on requirements).



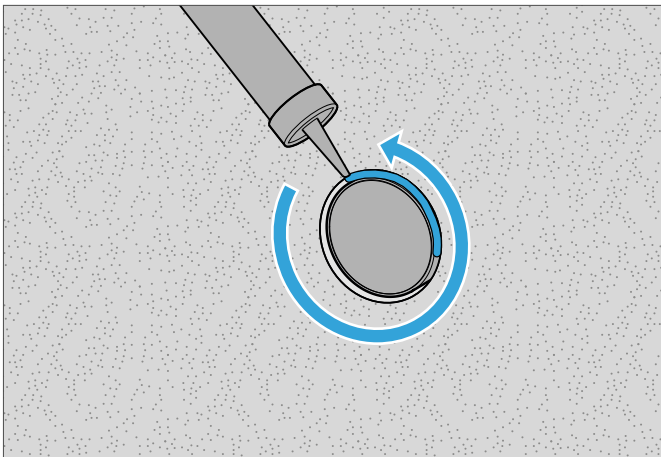
7. Plaster the outside wall.



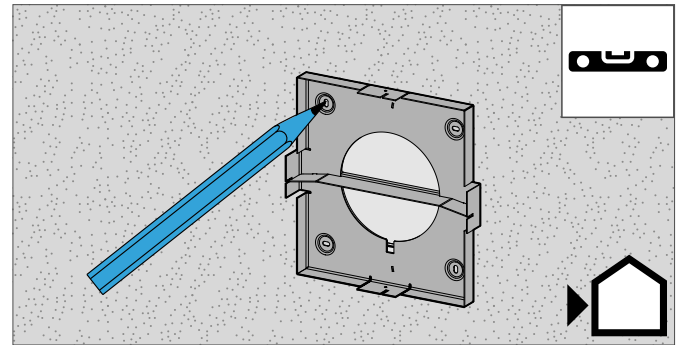
8. Remove the plaster cover.



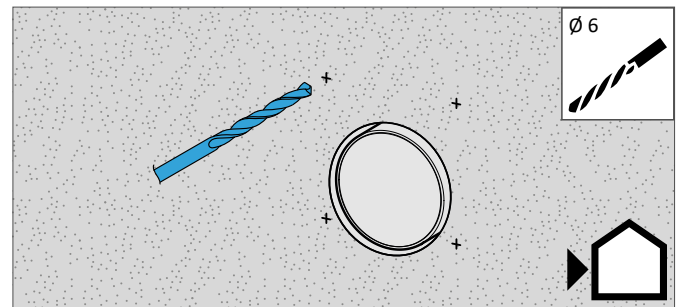
9. Seal the pipe so that it is airtight to the inside and breathable to the outside.



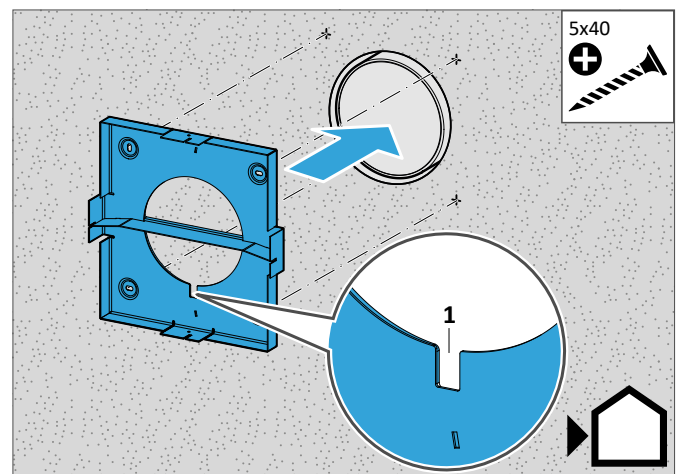
10. Adjust the wall fixing and mark the fixing holes.



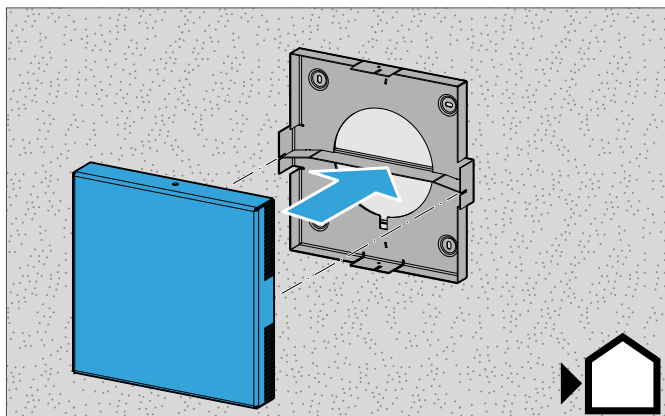
11. Drill the fixing holes and insert the dowels.



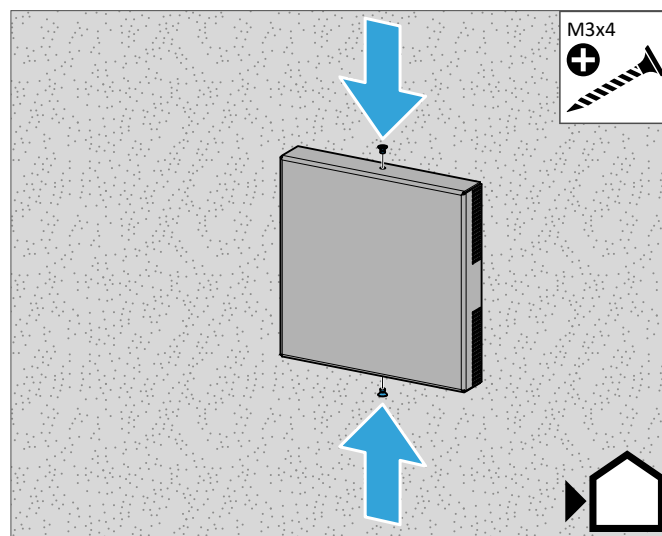
12. Screw the wall fixing into place. Ensure that the condensation drain (1) is pointing downwards.



13. Position the weather protection hood on the wall fixing.



14. Screw the weather protection hood into place.



### 4.5 Installation of ventilation pipe and vent duct

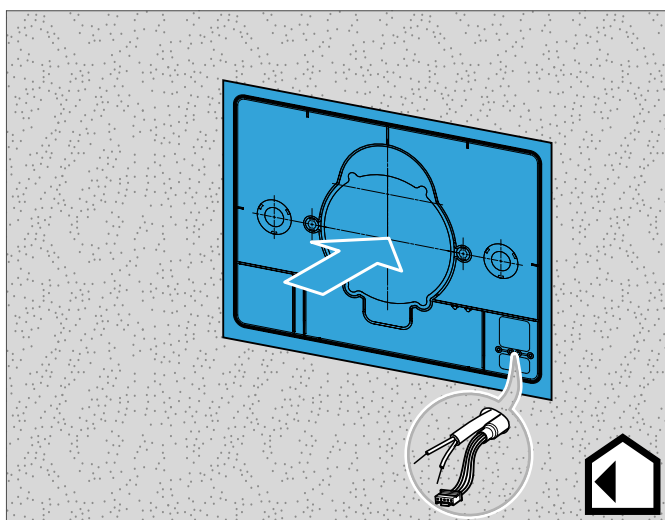
#### NOTICE

##### Material damage due to holes in the wall

Concealed cables or pipes can be damaged while drilling the core hole.

- Ensure that there are no cables or pipes in the installation area of the wall.
- Use a suitable detection device to check for cables and pipes.

1. Fix the drilling template to the wall. Be mindful of the intervals from the core hole when doing so, Processing dimensions (see page 17).



**NOTICE**

**Material damage due to incorrect angle when drilling the core hole**

If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Drill the core hole to the outside from the room.
- Drill the core hole at an angle of  $0.0^\circ - 1.0^\circ$ .

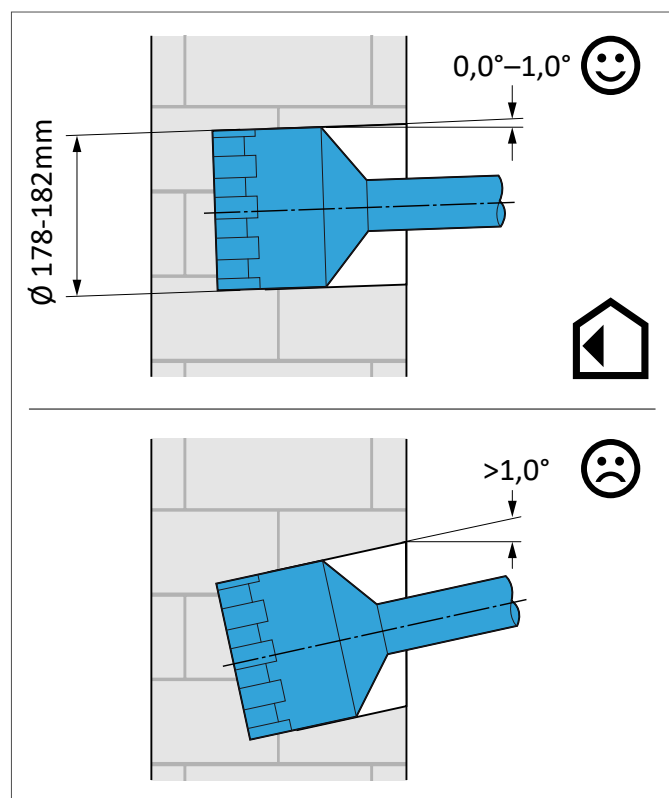
**NOTICE**

**Material damage due to incorrect angle of the ventilation pipe**

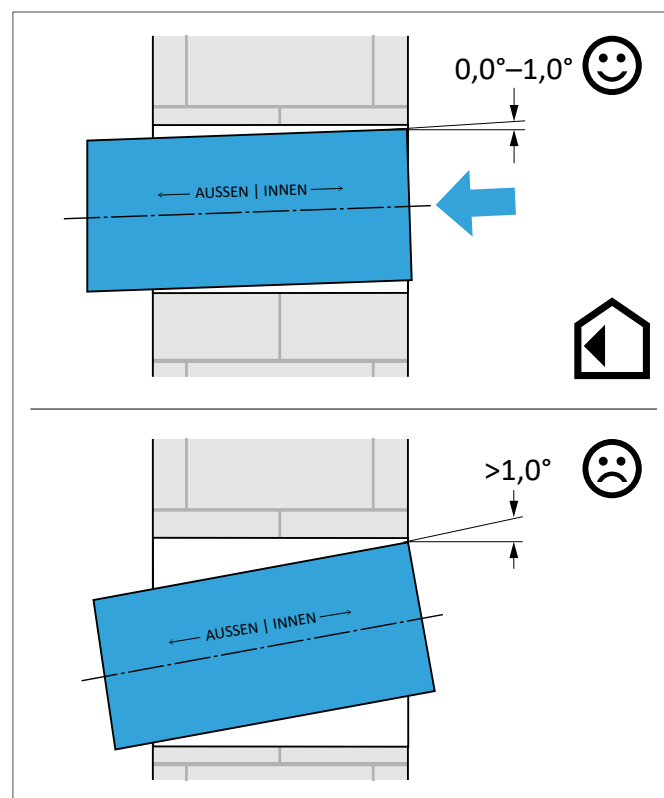
If the angle is  $>1.0^\circ$ , the ventilation unit cannot be installed.

- Install the ventilation pipe at an angle of  $0.0^\circ - 1.0^\circ$ .

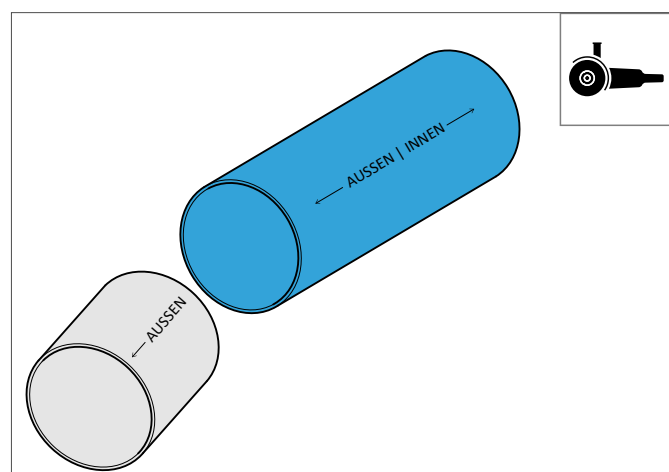
2. Drill the core hole.



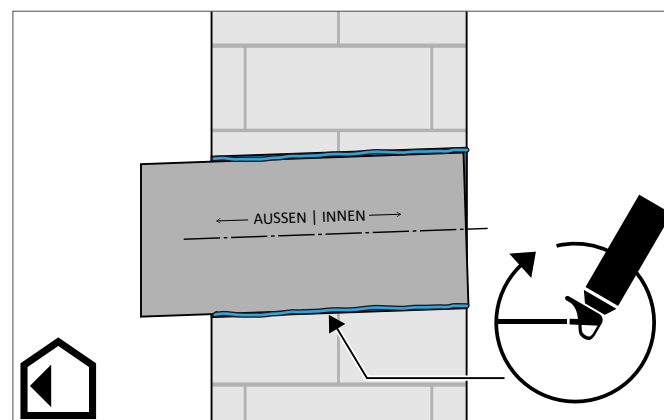
4. Insert the trimmed end of the pipe into the wall.



3. Trim the pipe. Be mindful of the dimensions for inserting the pipe into the vent duct Processing dimensions (see page 17).



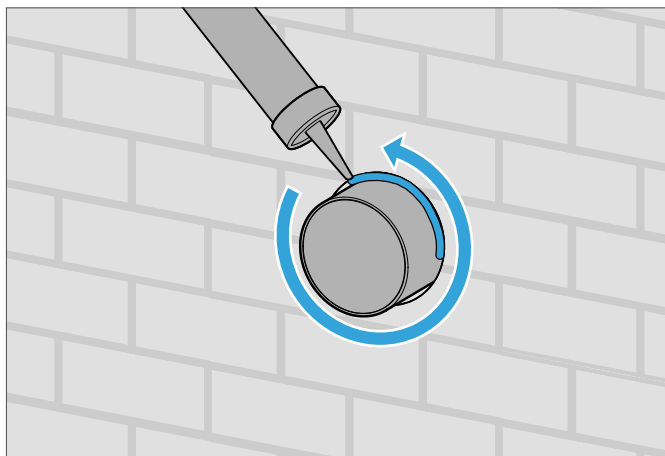
5. Insulate the pipe (depending on requirements).



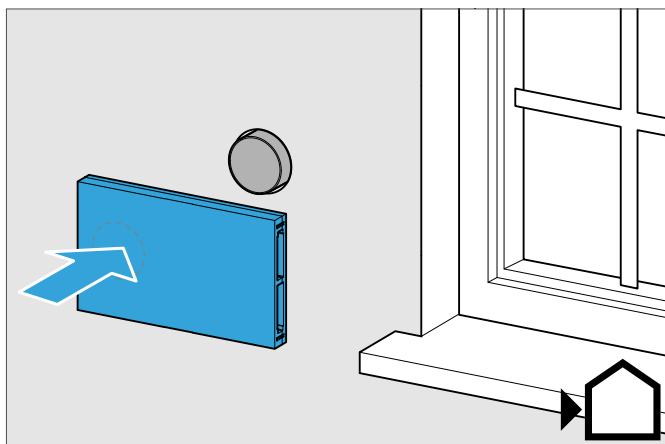
# Assembly instructions

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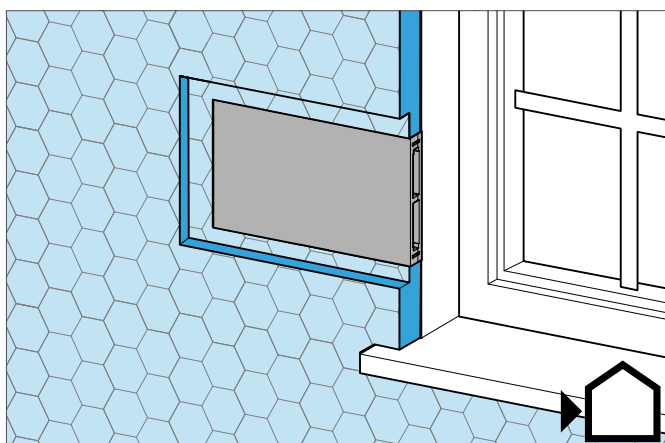
6. Seal the pipe so that it is airtight to the inside and breathable to the outside.



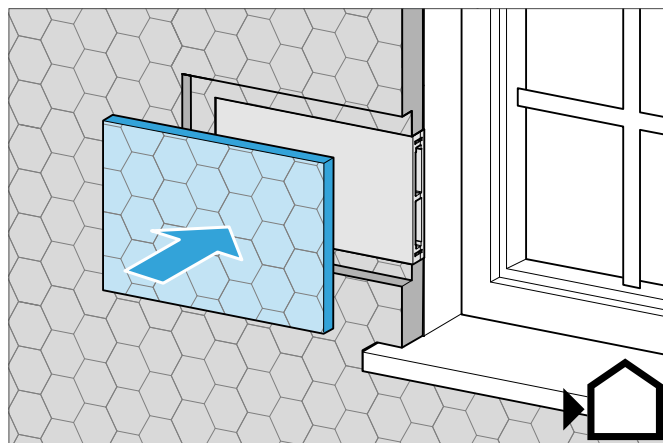
7. Place the vent duct onto the ventilation pipe and screw or glue to the outside wall.



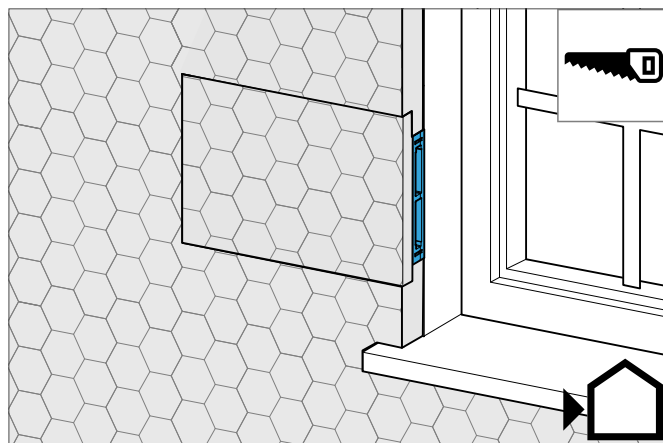
8. Apply the thermal insulation.



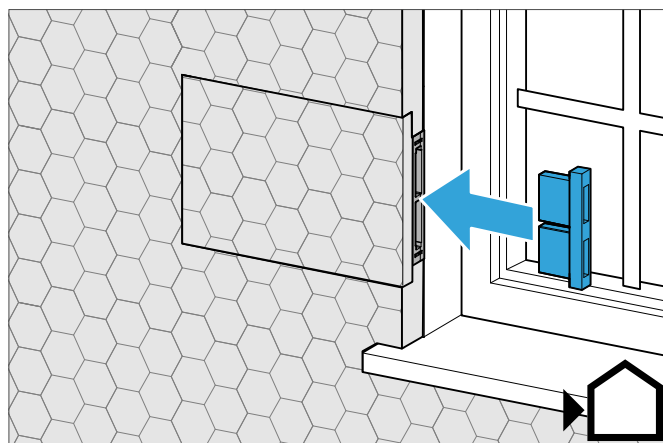
9. Apply the thermal insulation to the vent duct.



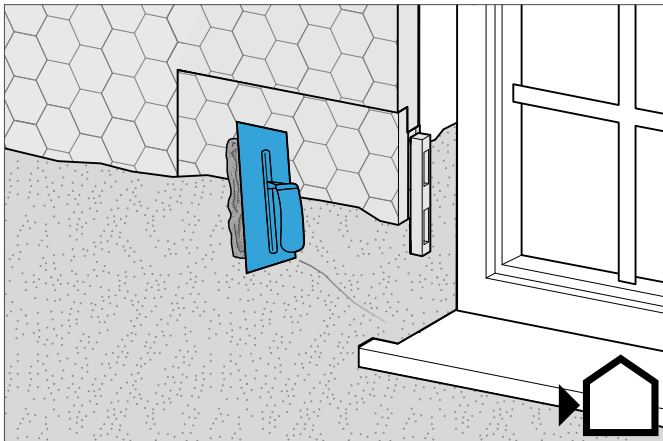
10. Trim the vent duct if it is not flush with the wall. Be mindful of the area that can be trimmed when doing so Dimensions of vent duct (see page 16).



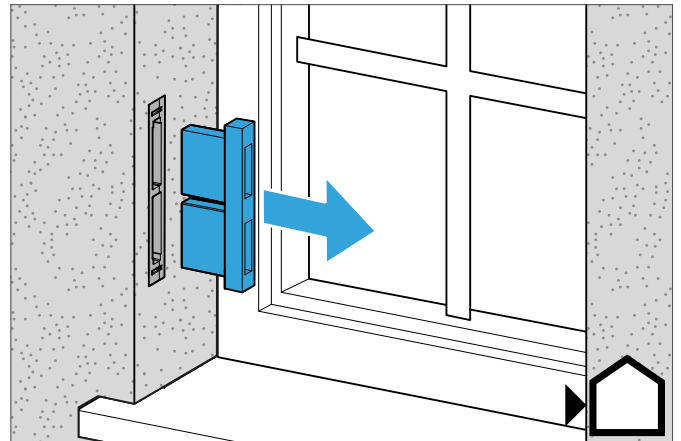
11. Insert the plaster cover.



12. Plaster the wall and the vent duct.



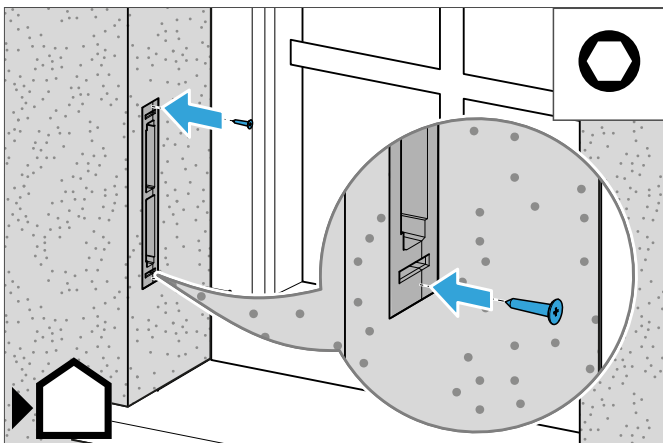
13. Remove the plaster cover.



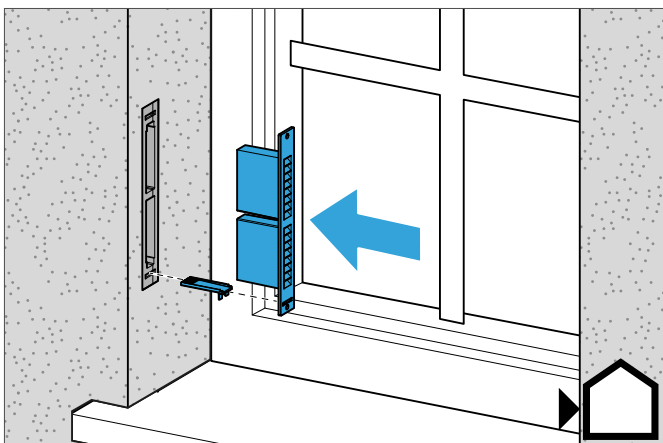
## 4.6 Installation of outer panels for vent duct

### 4.6.1 Installation of PVC outer panel

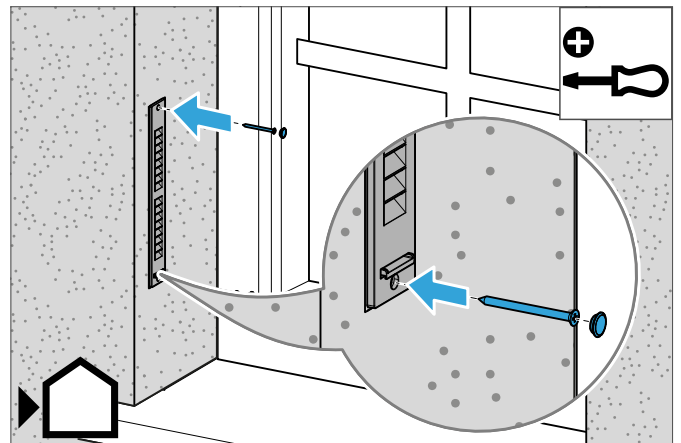
1. Screw the dowels into the vent duct.



2. Insert the drainage duct and the PVC outer panel into the vent duct.

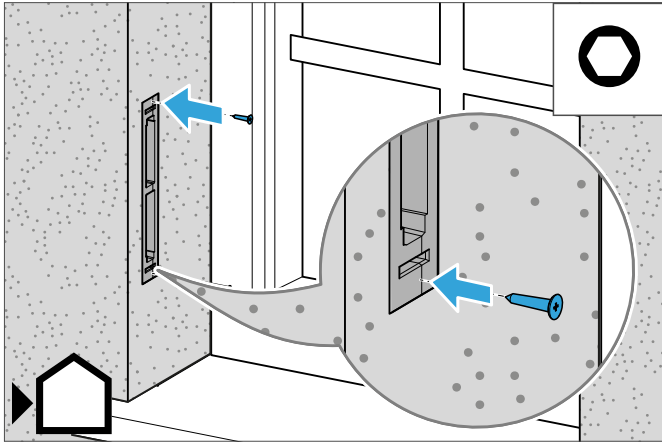


3. Screw the PVC outer panel into place and put the cover caps onto the screw heads.

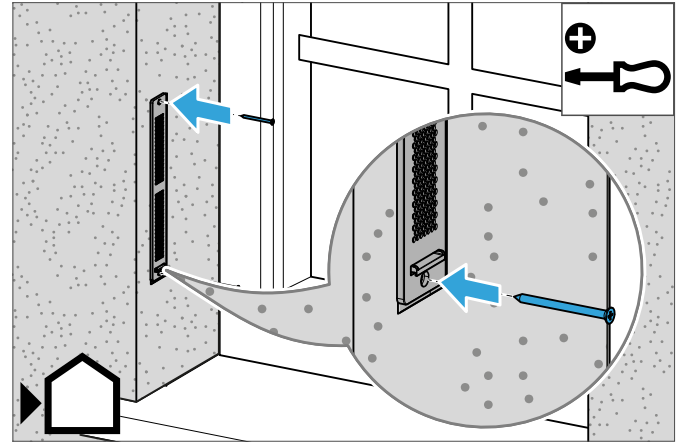


### 4.6.2 Installation of aluminium outer panel

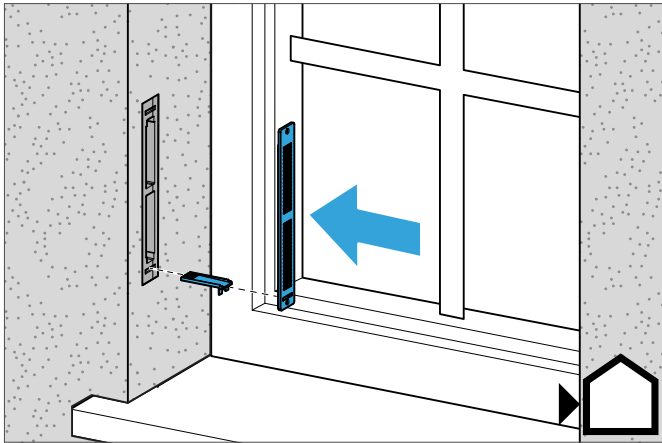
1. Screw the dowels into the vent duct.



3. Screw the aluminium outer panel into place.



2. Insert the drainage duct and the aluminium outer panel into the vent duct.



### 4.7 Installation of room-side components

Steps 4 – 6 and 15 – 19 describe the fixed electrical connection. These steps can be omitted if the pre-installed cable with plug is used.

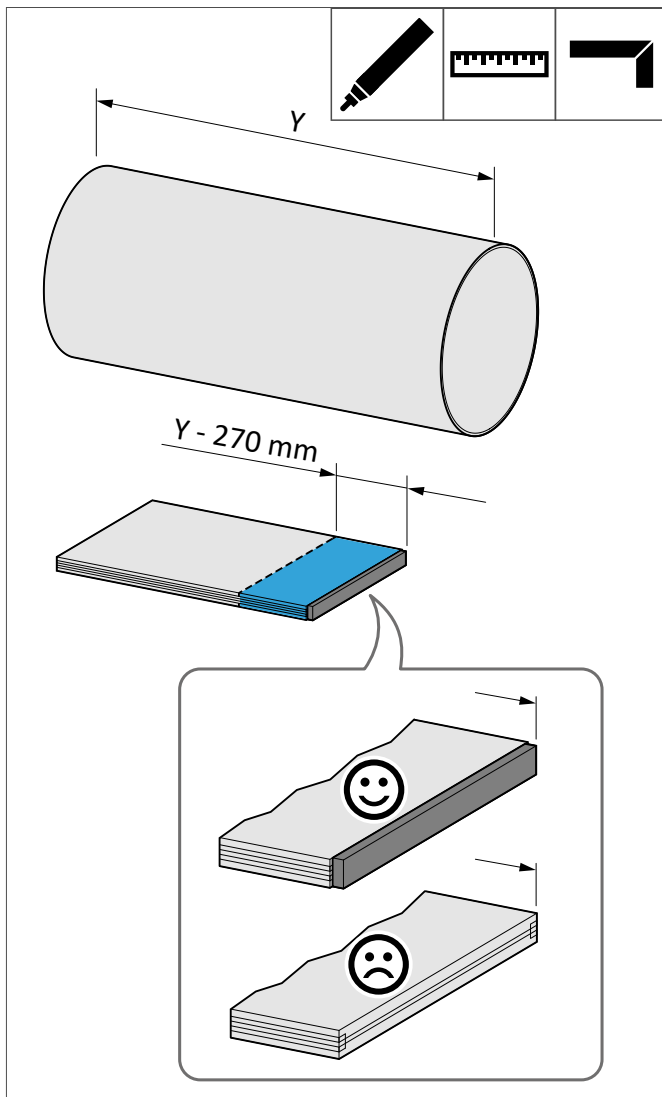
**NOTICE**

**Material damage due to water or dirt in the device**

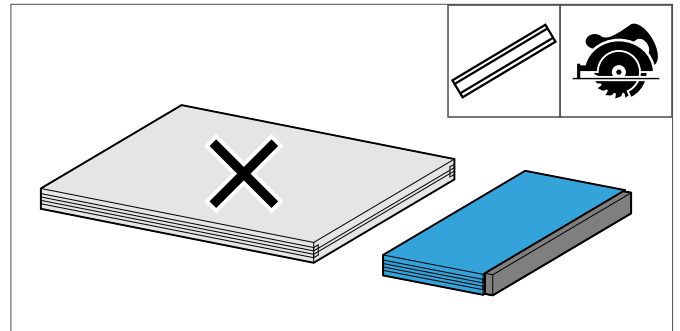
Water and dirt inside the device can lead to damage to the device.

- Protect open areas on the device from ingress of water and dirt until installation is complete.

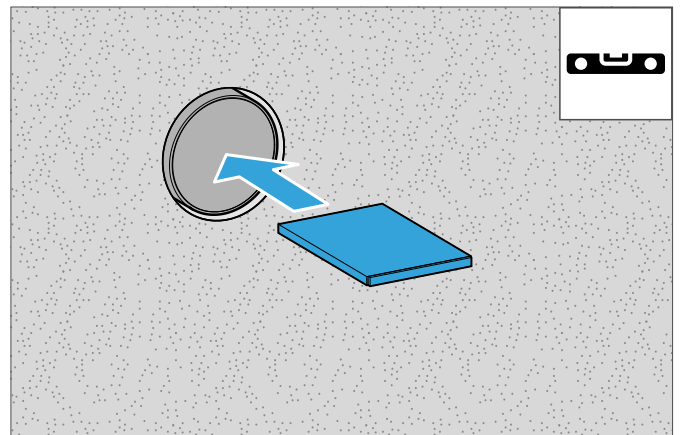
1. Transfer the required dimension to the divider (pipe length  $Y - 270$  mm).



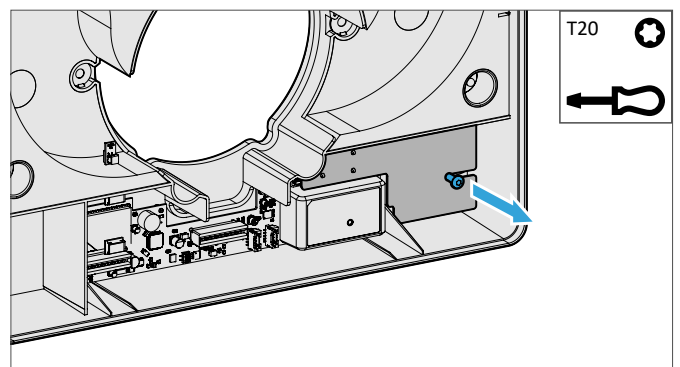
2. Trim the divider. Make sure that the cut is straight and at a right angle.



3. Push the divider into the ventilation pipe as far as it will go. Ensure that the divider is horizontally aligned and the seal is pointing in towards the room.



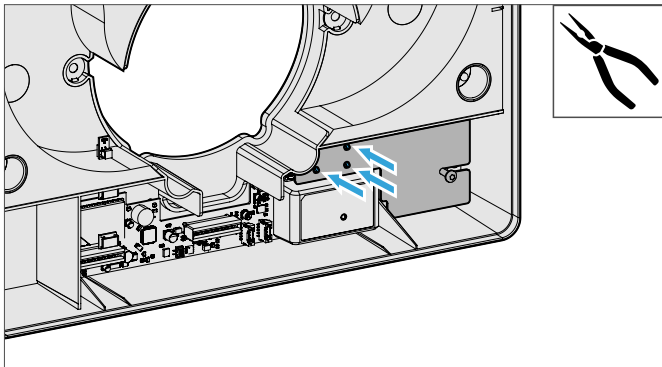
4. Loosen the screw on the electronics cover slightly.



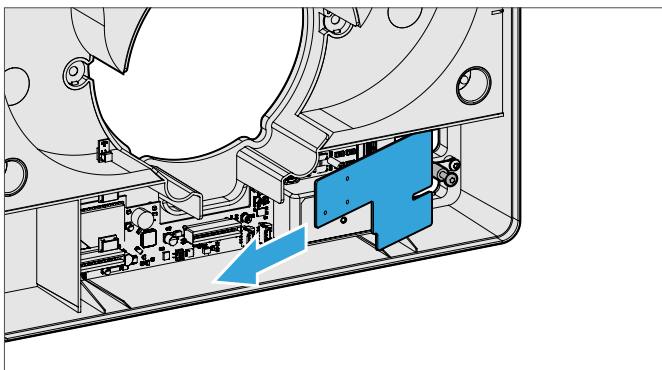
# Assembly instructions

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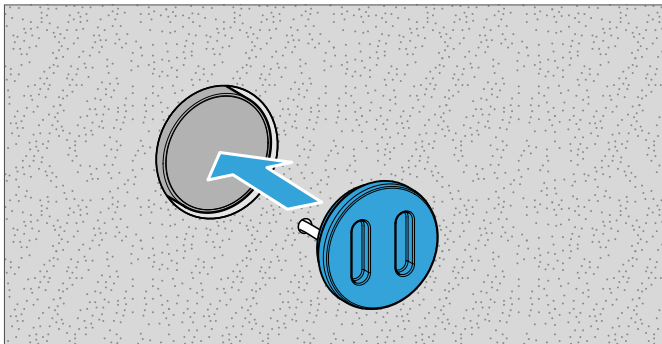
5. Loosen the 3 connectors on the electronics cover.



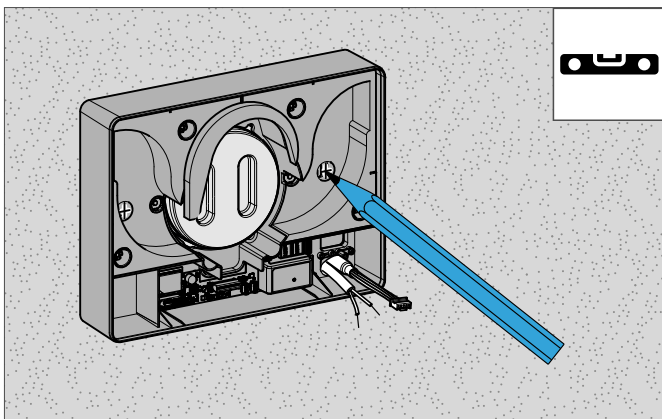
6. Remove the electronics cover.



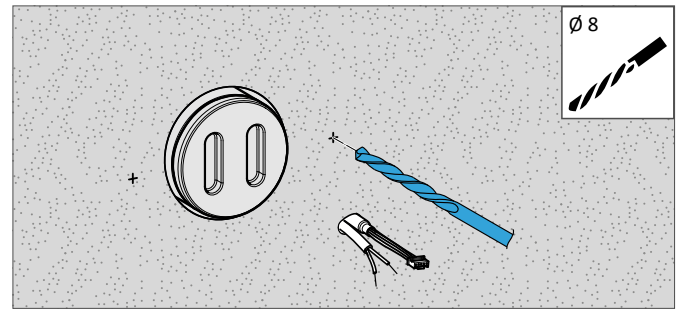
7. Insert the mounting plug into the ventilation pipe.



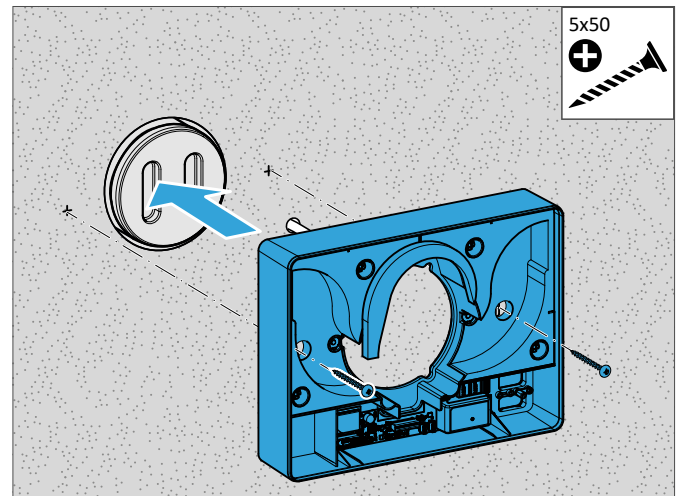
8. Adjust the wall-mounted module and mark the fixing holes.



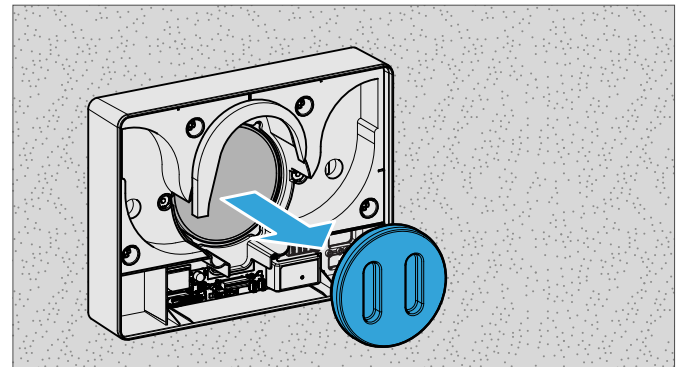
9. Drill the fixing holes for the wall-mounted module and insert the dowels.



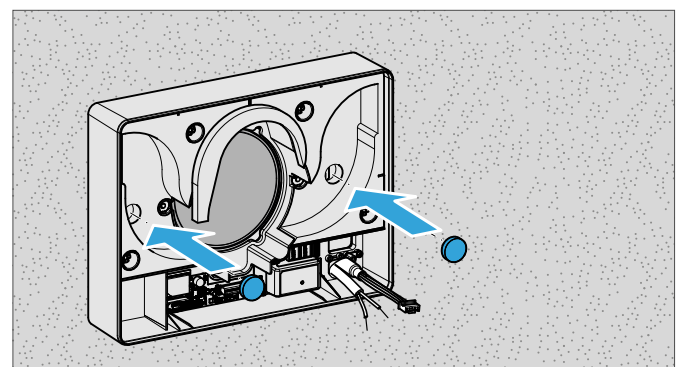
10. Screw the wall-mounted module into place.



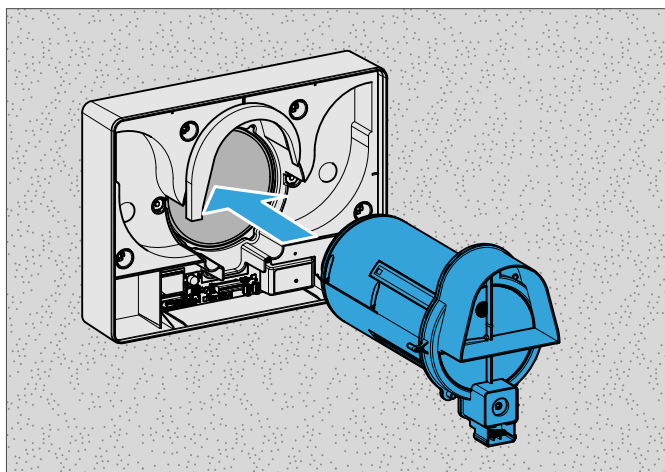
11. Remove the mounting plug.



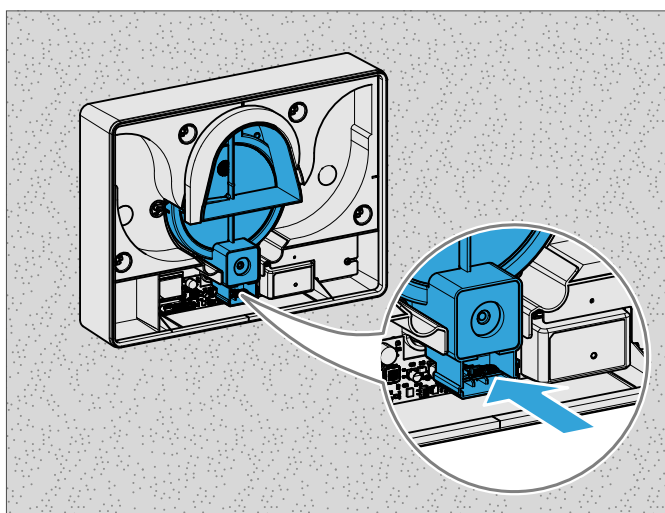
12. Install the foam inserts.



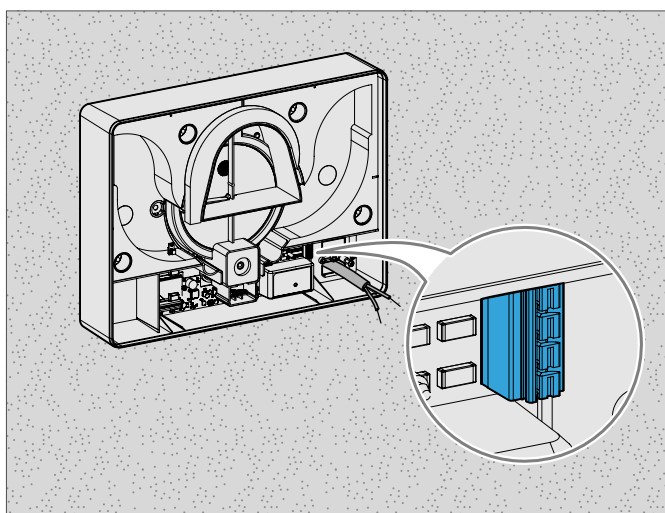
13. Push the pipe module into the ventilation pipe.



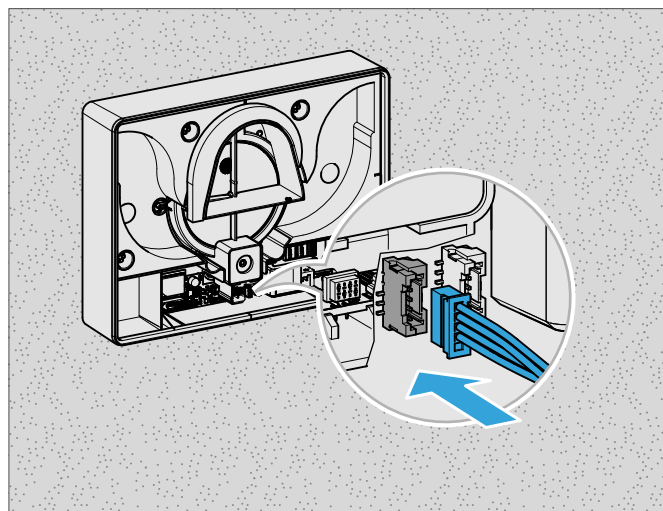
14. Press the plug connection of the tube module onto the wall-mounted module.



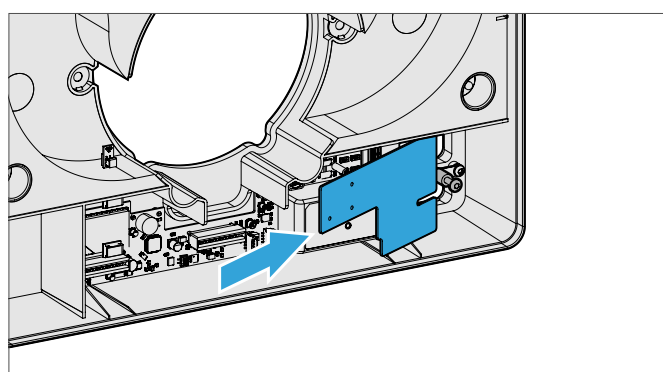
15. Connect the cable for the fixed connection or external inputs, Electrical connection (see page 19).



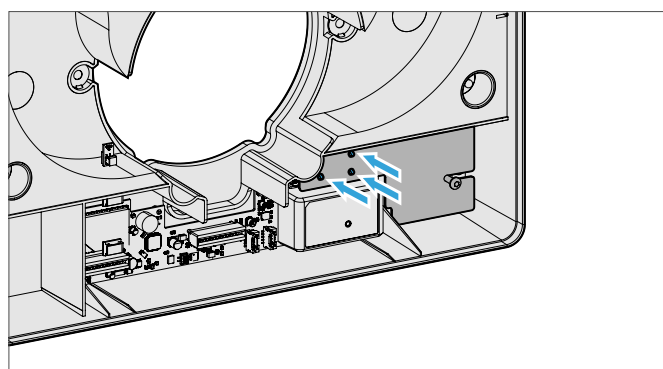
16. Optionally connect the cable for the SI-BUS.



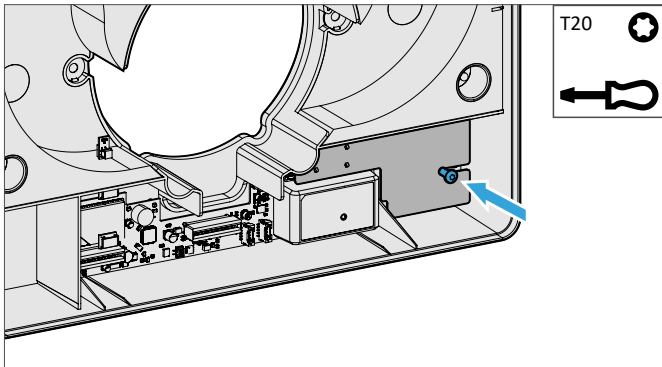
17. Position the electronics cover.



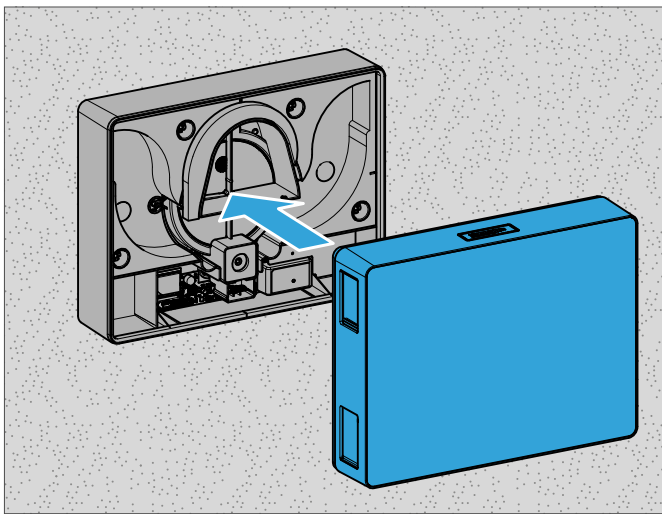
18. Press the electronics cover onto the 3 connectors.



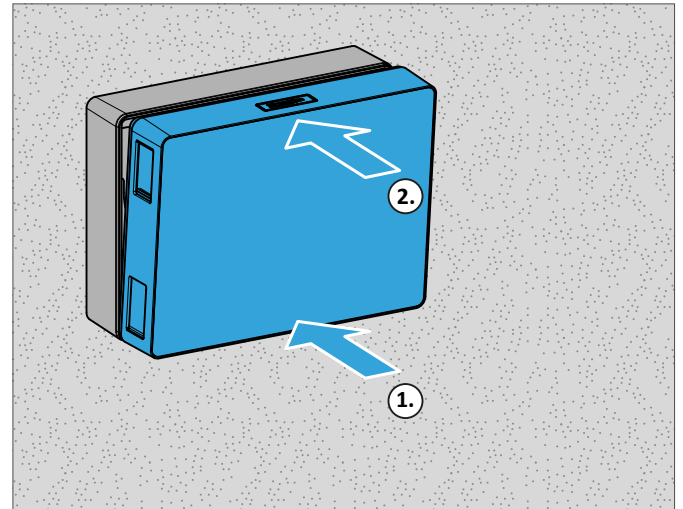
19. Tighten the screw.



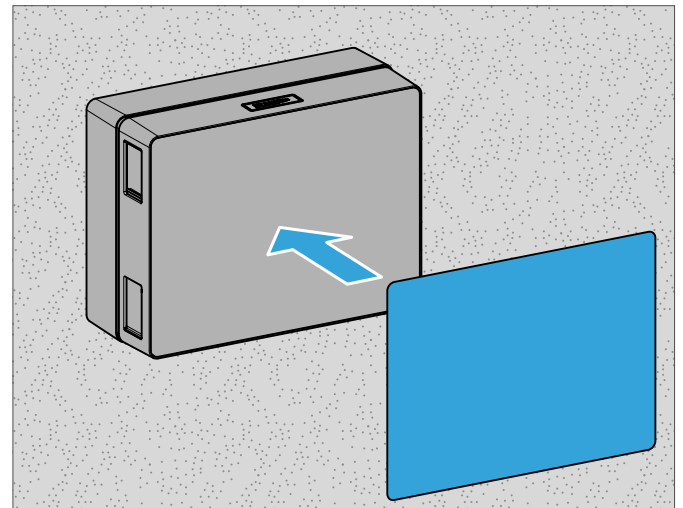
20. Fit the casing module straight onto the wall-mounted module and press into place lightly.



21. First press the casing module into place at the bottom, then at the top.



22. Fit the front panel onto the casing module.





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