

AERO

AEROTUBE DD 110
AEROTUBE DD 160

Wall-mounted ventilator with sound absorption.

Window systems

Door systems

Comfort systems

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1 Target group of this documentation

- This documentation is intended for use by specialists and end users.
- All instructions concerning assembly, installation and repairs described in this document are to be performed exclusively by experienced professionals with training and practice in the installation, commissioning, servicing and maintenance of decentralised ventilation units.
- All notes on operation and maintenance as well as the rectification of malfunctions described here are intended for specialists and end users.
- Following installation, the installation company must hand over the installation and operating instructions to the end user.

2 Intended use

- The AEROTUBE is a passive air ventilator. The room is ventilated as the indoor and outdoor air pressures are equalised (pressure differential).
- The unit must always be installed by an experienced specialist, in accordance with the installation and planning documents of SIEGENIA. The installation information in these instructions must be complied with at all times.
- The AEROTUBE must be mounted in the intended installation position.
- Do not use the AEROTUBE in environments with corrosive or explosive atmospheres (dust, vapour or gas).
- Use the unit only with original accessories from SIEGENIA.
- Use the AEROTUBE only when it is in a technically sound condition. Do not modify the unit's components in any way.
- Ventilation openings must be kept free and must not be blocked by other equipment, furniture or objects
- The ventilation pipe can be shortened to the required length (minimum length of ventilation pipe 150 mm).
- Any use or application of this product that is not in accordance with its intended use, or any adaptation of or modification to the product and its associated components, for which the express consent of SIEGENIA has not been obtained, are strictly prohibited. SIEGENIA accepts no liability whatsoever for any material losses or injury to people caused by failure to comply with this stipulation.

3 General notes

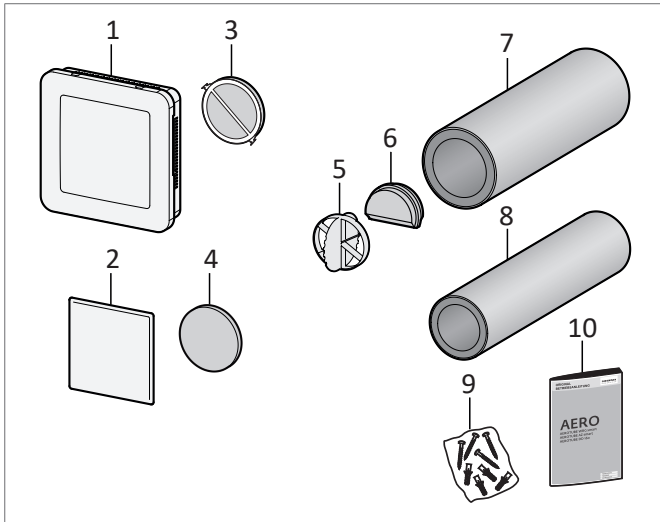
All the dimensions in this documentation are specified in millimetres (mm).

4 Scope of delivery and accessories:



The scope of delivery can vary depending on the device equipment.

4.1 AEROTUBE

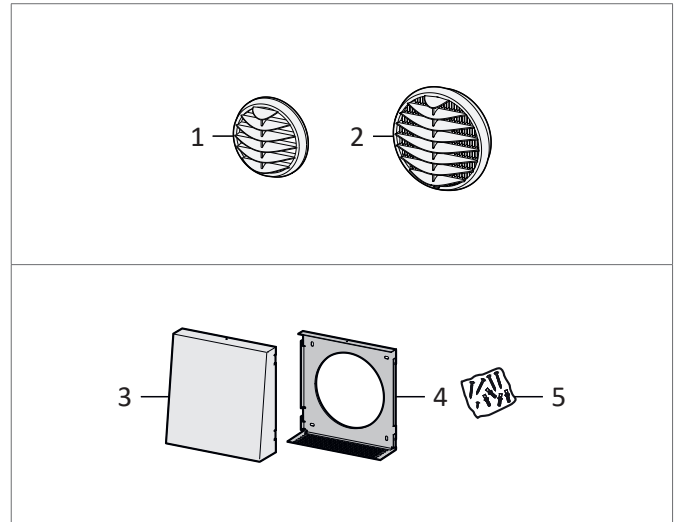


Item	name
1	Inner panel E28
2	Inner panel E18
3	Filter ISO coarse 30 % for inner panel E28
4	Filter ISO coarse 30 % for inner panel E18
5	Wind pressure barrier for ventilation pipe Ø 160
6	Sound insulation element (SK)
7	Ventilation pipe Ø 160 mm (AEROTUBE DD 160)
8	Ventilation pipe Ø 110 mm (AEROTUBE DD 110)
9	Bag of screws (4 screws and dowels)
10	Assembly and operating instructions

Accessories

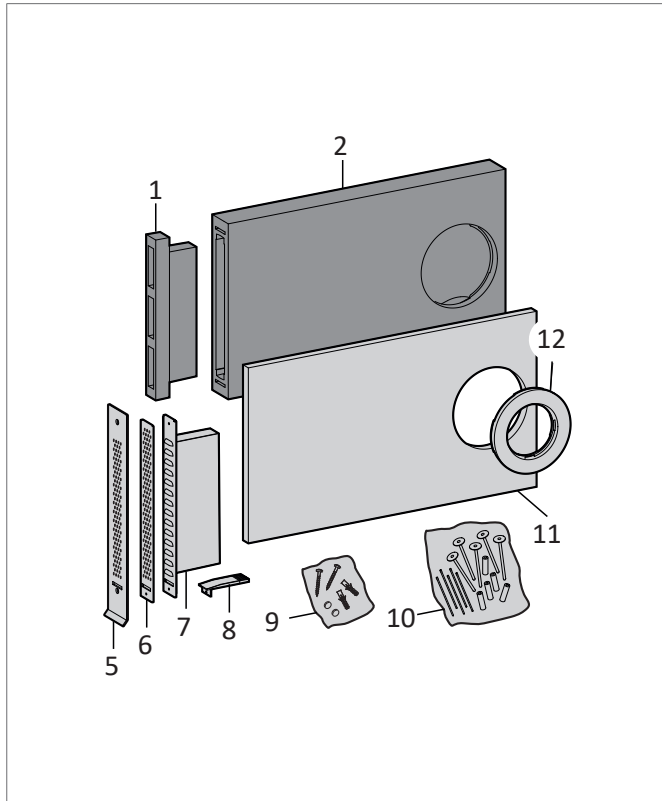
Item	name	Material number
3	Replacement filter for E28 (2 pieces)	L3470160-093110
4	Replacement filter for E18 (2 pieces)	L3470150-093110

4.2 Weather grille



Item	name
1	Weather grille PVC D 110 (AEROTUBE DD 110)
2	Weather grille PVC D 160 (AEROTUBE DD 160)
3	Stainless steel weather grille hood
4	Wall fixing
5	Fixing set

4.3 Vent duct EPP

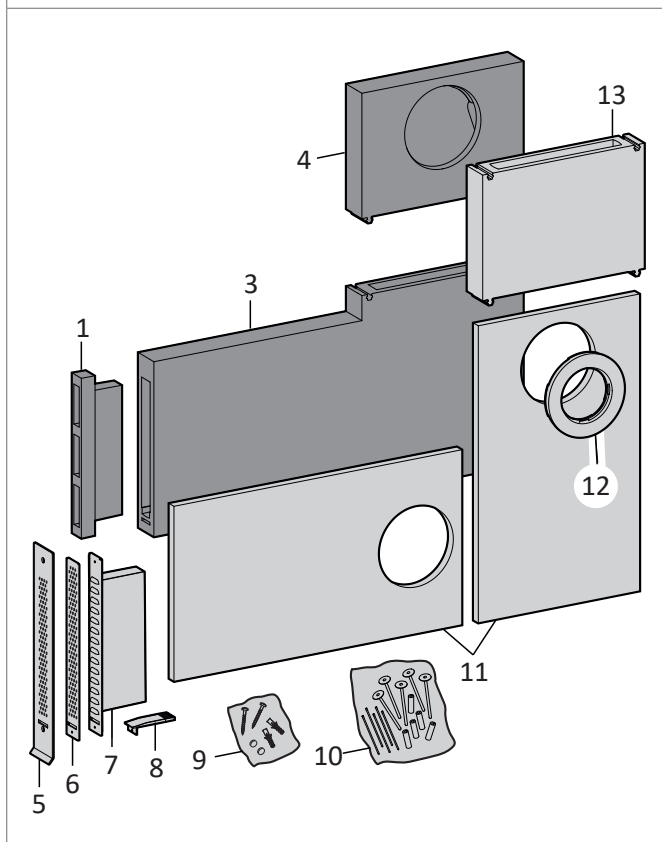


Item	name
1	Plastic cover
2	Vent duct EPP, type FL
3	Corner drive SFL
4	Transition piece SFL

Accessories

Item	name	Material number
5	Weather grille perforated brick aluminium	L5474620-500010
6	Weather grille perforated grille aluminium	L5474610-500010
7	Weather grille lamella	L5474600-003010
8	Outlet duct*	-
9	Fixing set*	-
10	Spacer (set: 10 pieces)	L5478700-000020
11	Insulation plate FL	L5474510-099010
12	Pipe adapter D 110	L5474620-097010
13	Extension (max. 5 pieces)	L5474730-099010

*Outlet duct and fixing set Included in scope of delivery "weather grille".

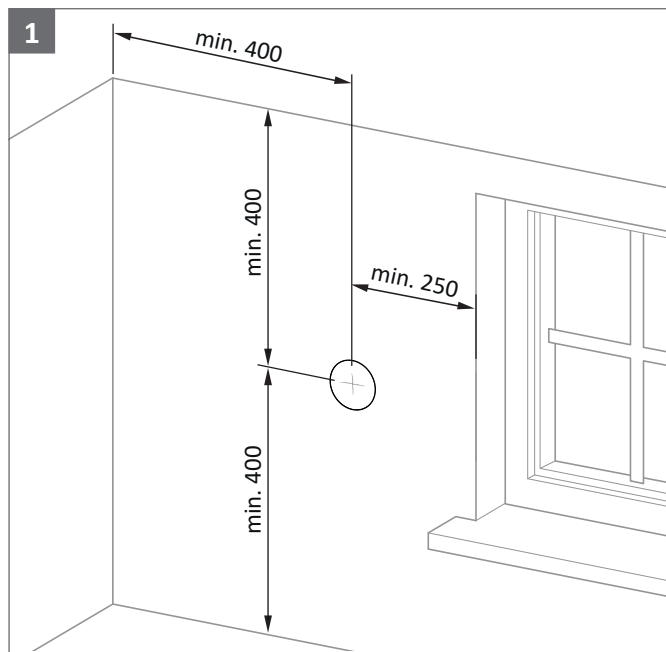


5 Assembly

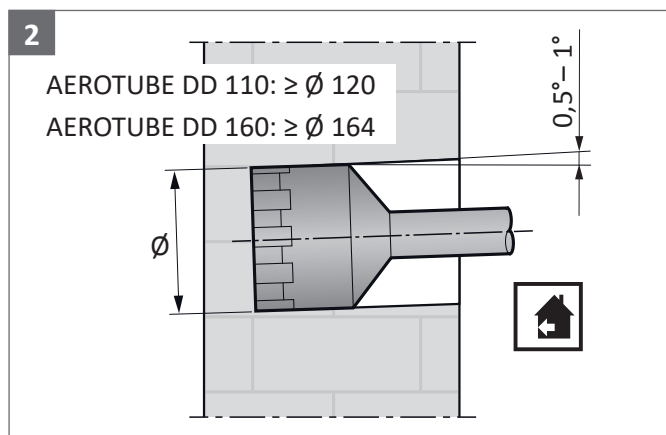
5.1 Installation of ventilation pipe and weather grille

- Remove the AEROTUBE carefully from the packaging and do not place it on the casing or front panel. We recommend storing the unit on a soft surface (e.g. cardboard or sheet) during installation.
- Check AEROTUBE for cleanliness prior to installation. If necessary, thoroughly clean the unit as described.
- Install the AEROTUBE in its intended installation position and seal it in accordance with the installation directives applicable on site.
- Suitable clamps must be selected according to the composition of the installation site and provided by the customer.

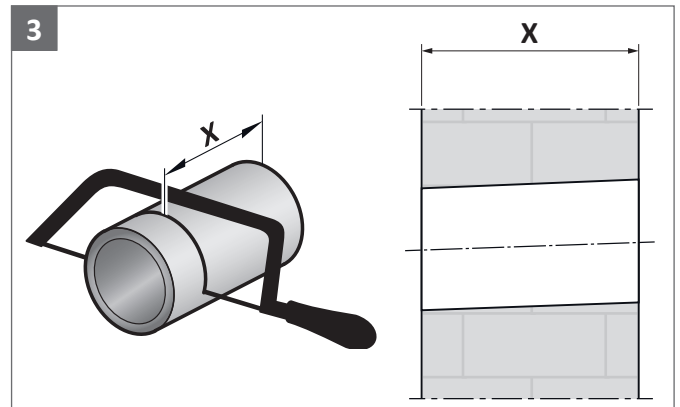
5.1.1 Drilling the core hole (room side) and installation of ventilation pipe



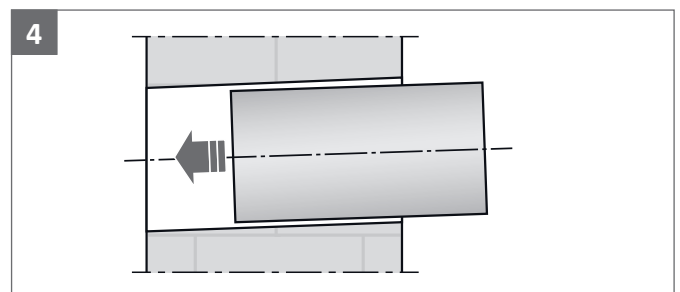
Mark core hole



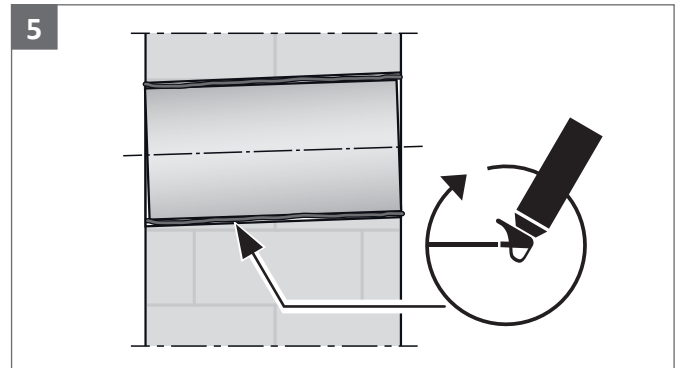
Drill the core hole



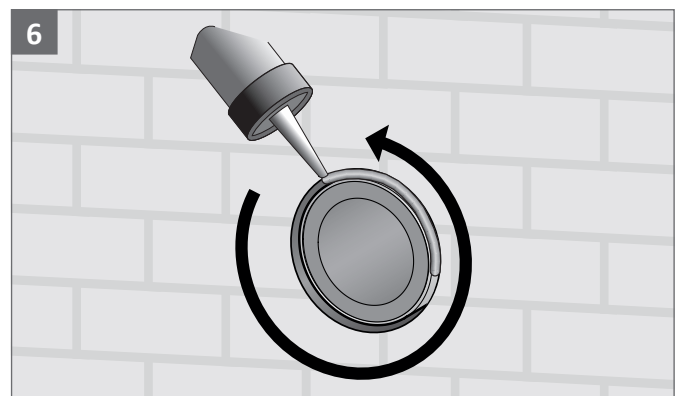
Shorten pipe



insert pipe in the wall



insulate pipe (according to requirement)

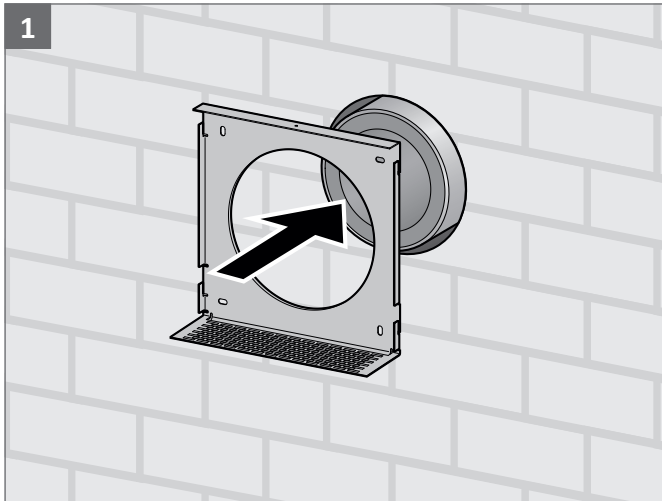


seal pipe

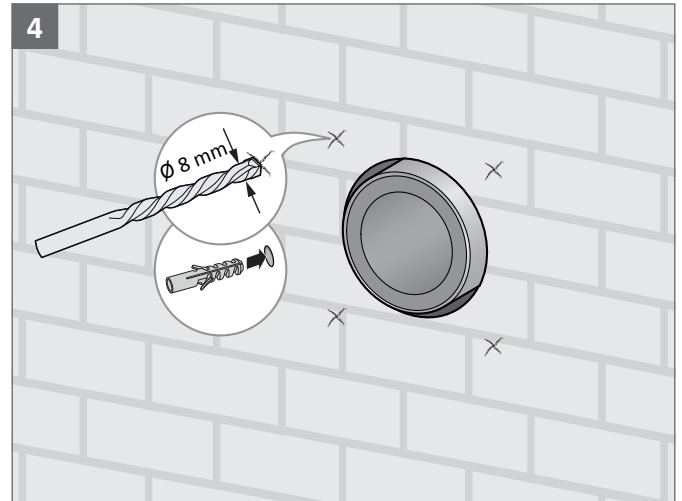


inside = airtight seal
outside = free-air seal

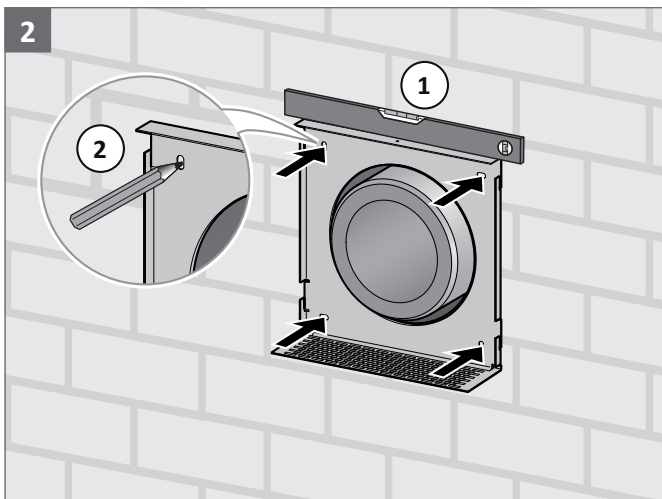
5.1.2 Installation of stainless steel weather grille cover



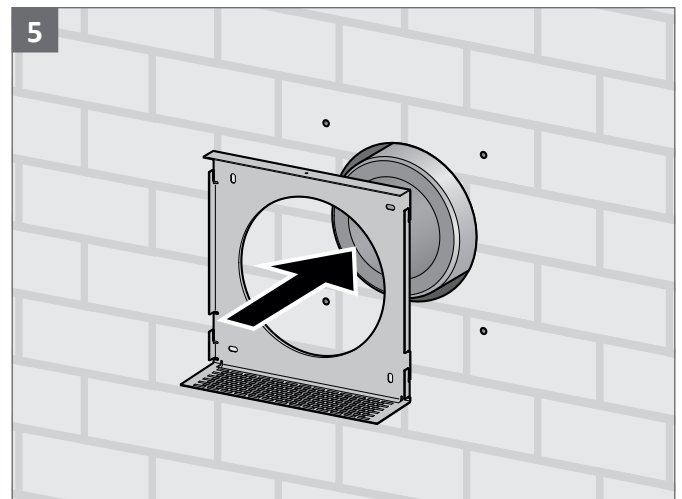
Position wall fixing on the wall



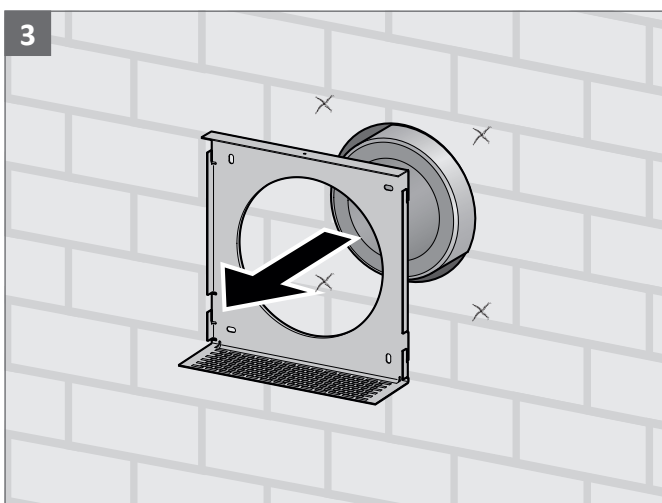
Drill fixing holes and insert dowels



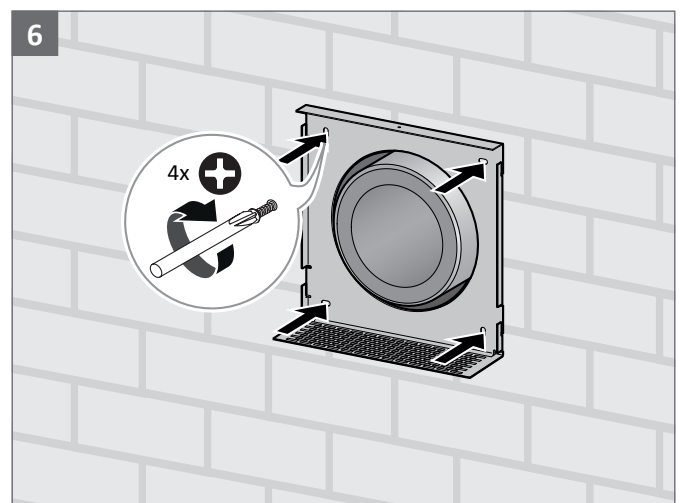
Adjust wall fixing ① and mark fixing holes ②



Place wall fixing on the wall

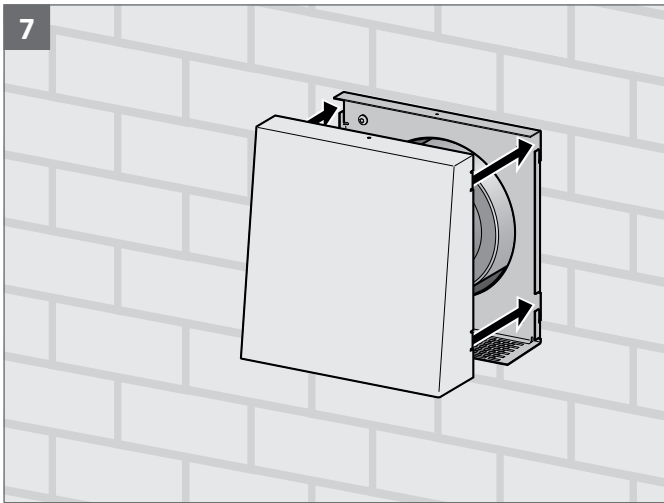


Remove wall fixing

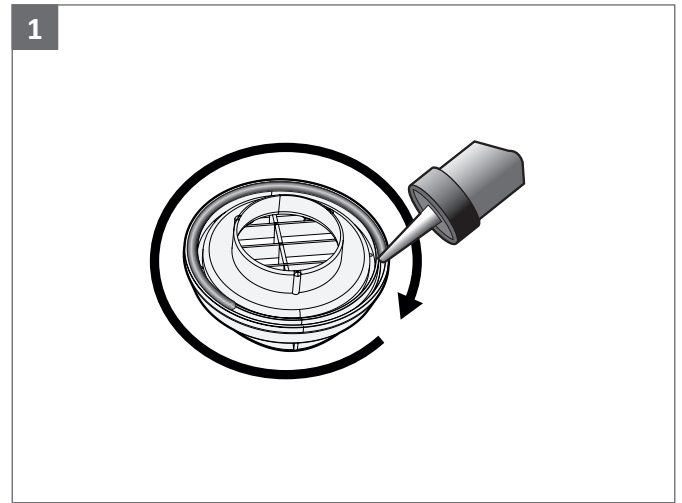


Fix wall fixing with screws

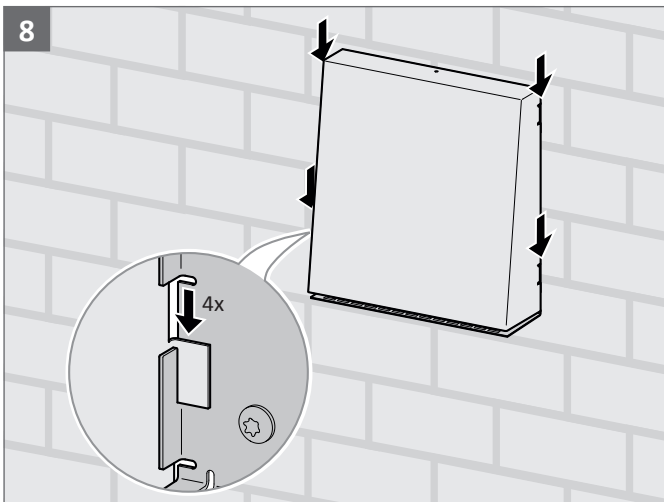
5.1.3 Installation of PVC weather grille



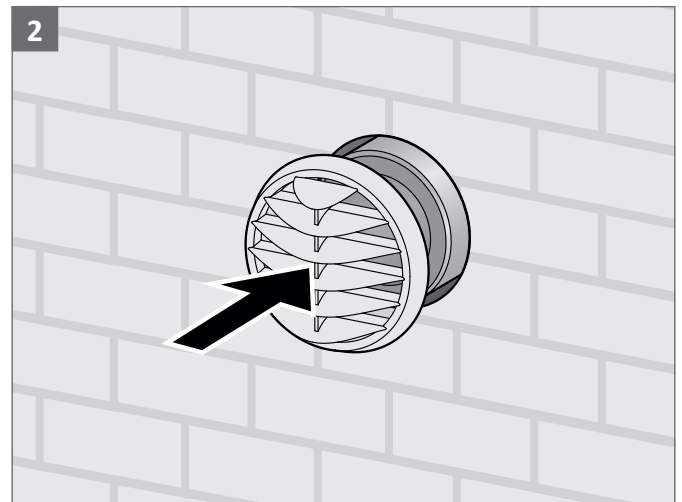
Adjust weather grille cover to the cable outlets of the wall fixing



Seal weather grille



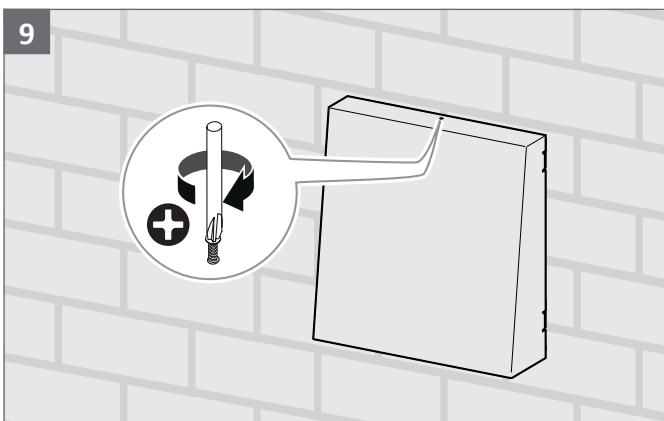
Hook weather grille cover into the wall fixing



Position weather grille and press firmly against the wall



The lamellae of the weather grille must point downwards.



Fix weather grille cover with screw

5.2 Installation of ventilation pipe and vent duct EPP

⚠ ATTENTION

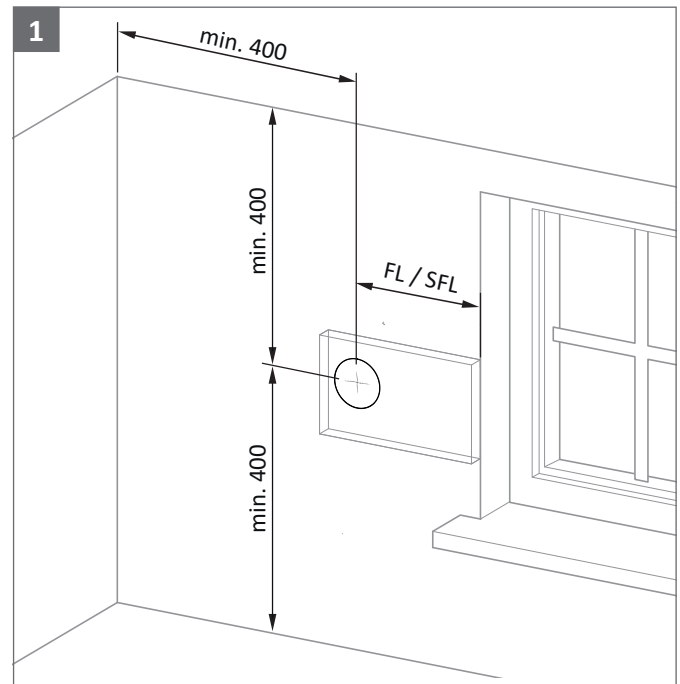
Sharp edges on the weather grille and perforated grid

There is a risk of injury from sharp edges

- Wear protective gloves

- Remove the AEROTUBE carefully from the packaging and do not place it on the casing or front panel. We recommend storing the unit on a soft surface (e.g. cardboard or sheet) during installation.
- Check AEROTUBE for cleanliness prior to installation. If necessary, thoroughly clean the unit as described.
- Install the AEROTUBE in its intended installation position and seal it in accordance with the installation directives applicable on site.
- Suitable clamps must be selected according to the composition of the installation site and provided by the customer.

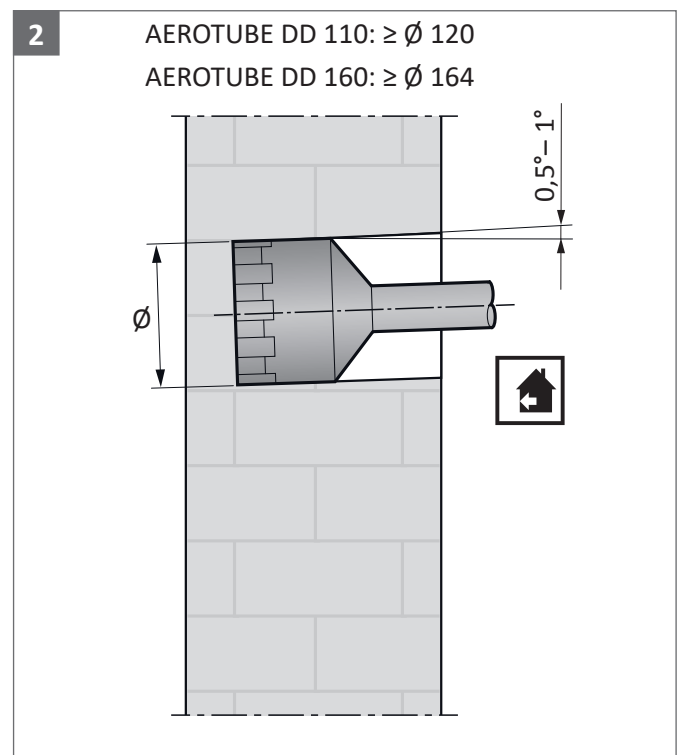
5.2.1 Drilling the core hole (room side) and installation of ventilation pipe



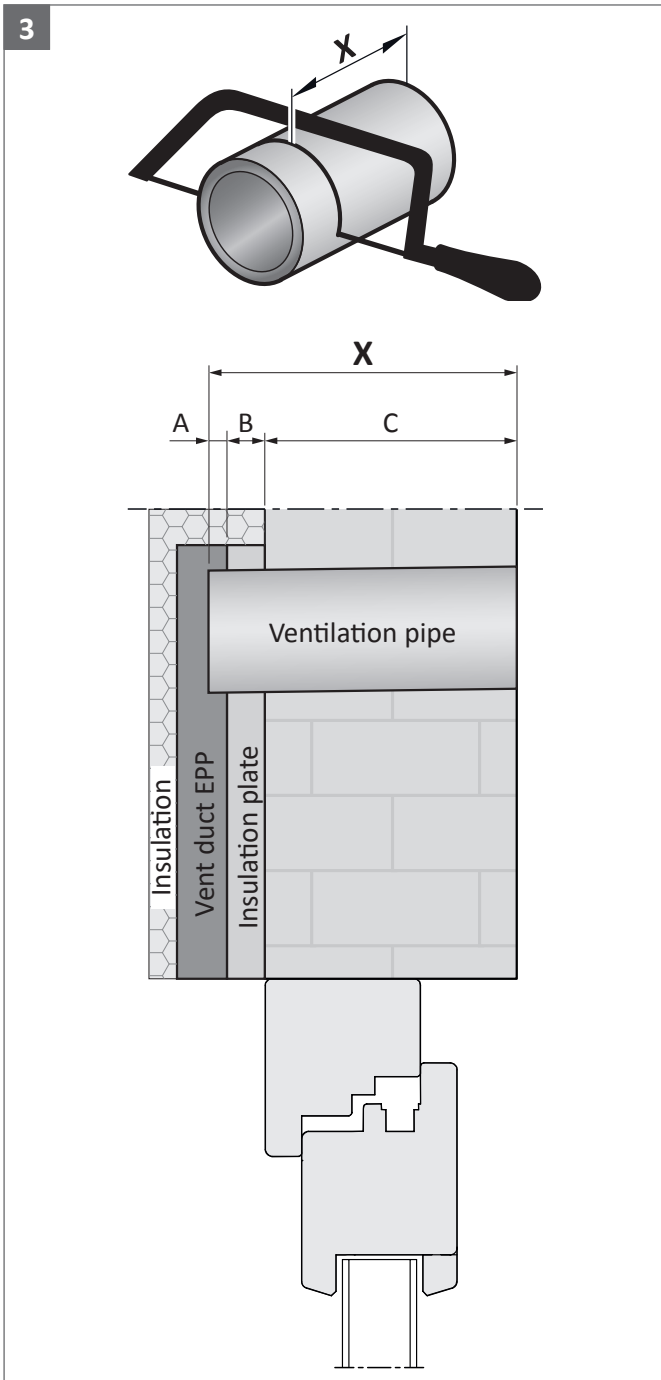
Mark core hole

FL: min. 250; max. 500

SFL: min. 350; max. 600



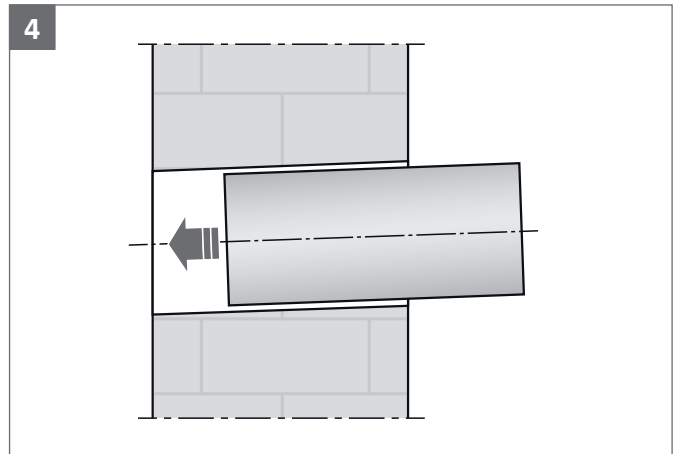
Drill the core hole



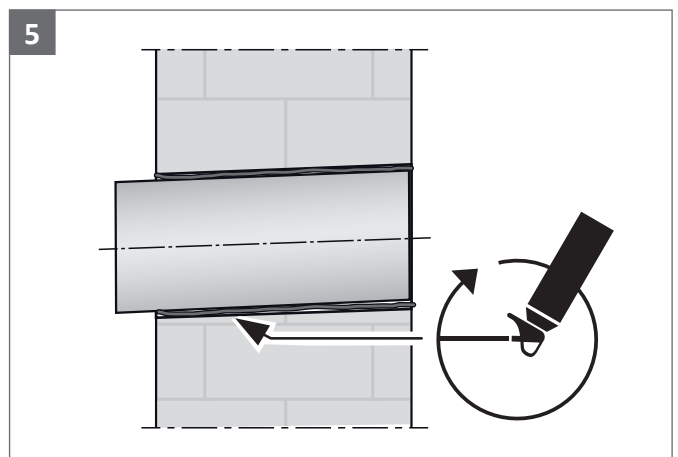
Shorten pipe:

- A insertion depth of ventilation pipe in vent duct EPP (min. 8 mm; max. 15 mm)
- + B back-up insulation of vent duct (combine insulation plates according to required wall insulation)
- + C wall thickness incl. plaster

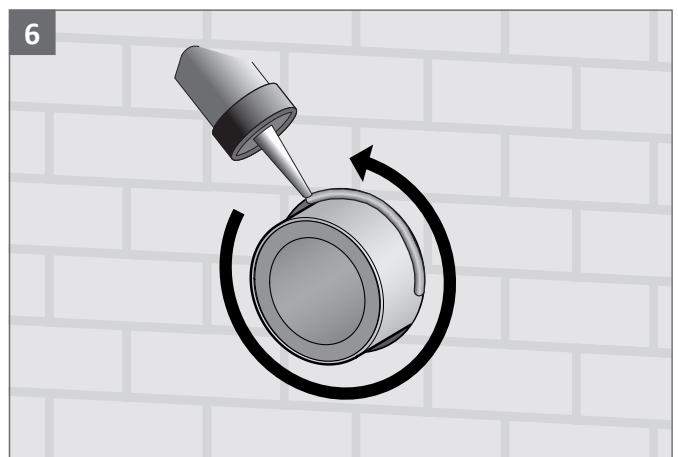
X pipe length



insert pipe in the wall



insulate pipe (according to requirement)

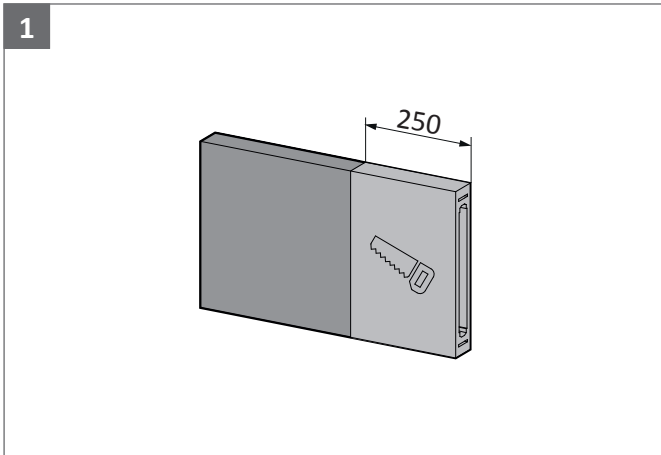


seal pipe

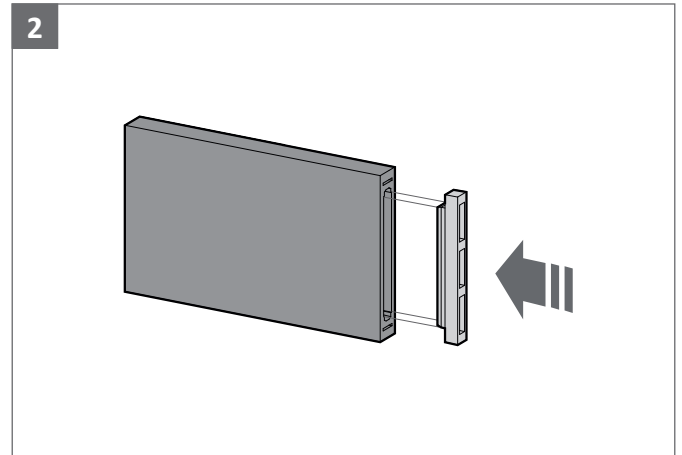


inside = airtight seal
outside = free-air seal

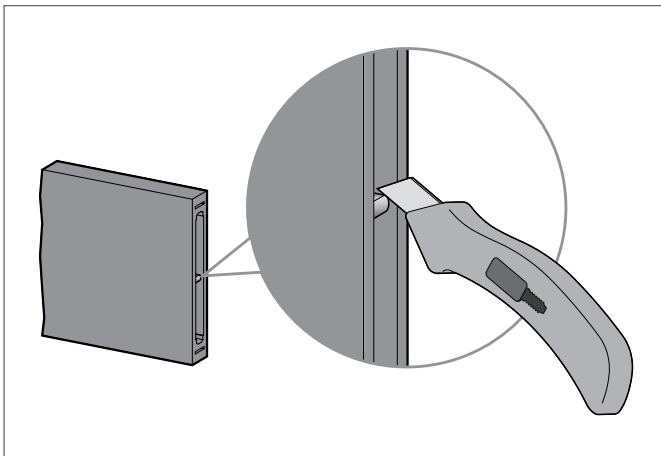
5.2.2 Installation of vent duct type FL



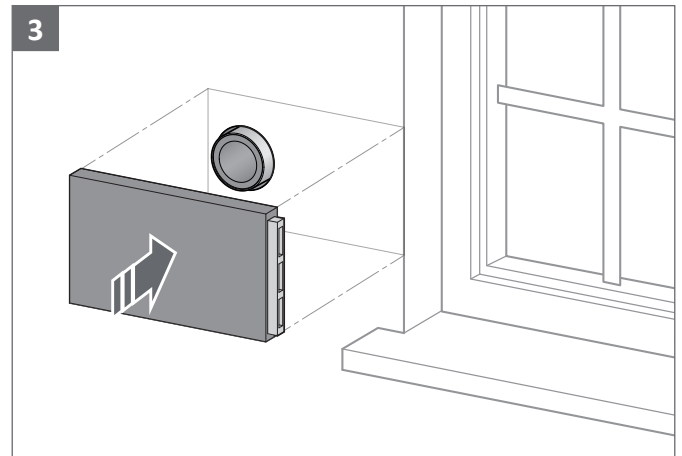
Shorten duct using a saw or cutter knife within the marked area if required.



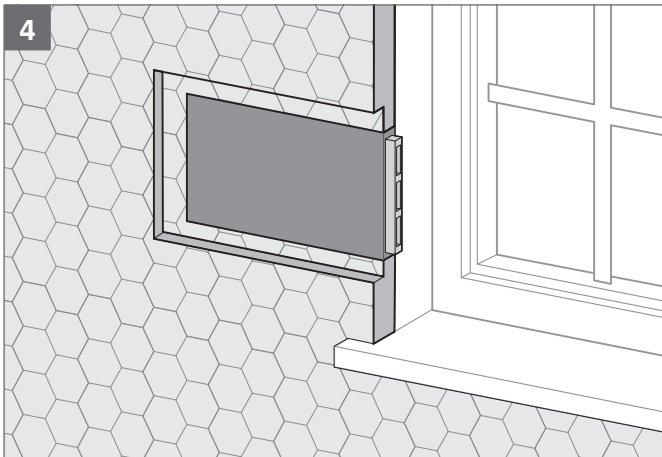
Insert plastic cover



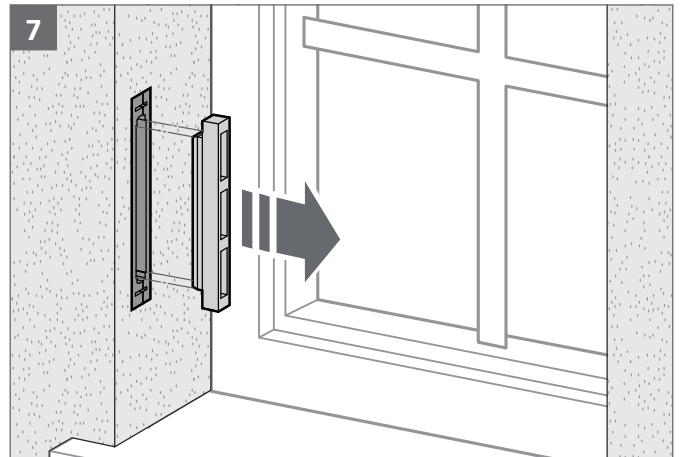
There is a separating bar inside the duct. If the duct is shortened by more than 200 mm, the separating bar must be cut using the cutter knife.



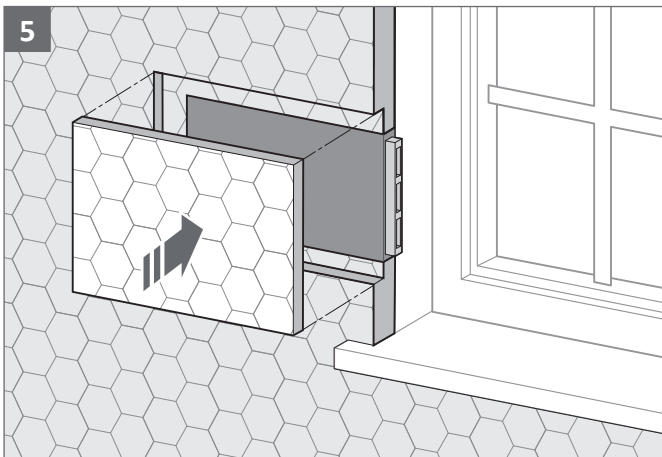
Position duct on pipe and fix to outside wall (screw or glue)



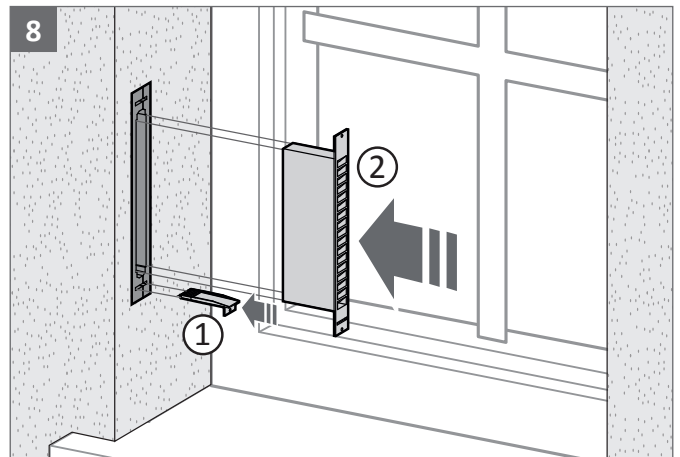
4 Attach thermal insulation



7 Remove plastic cover



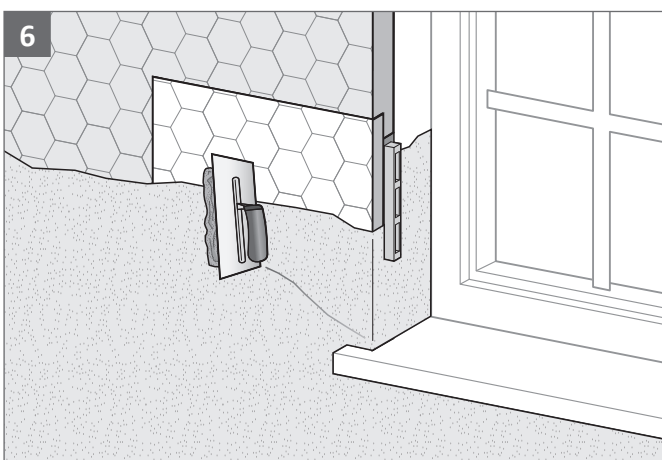
5 Attach thermal insulation



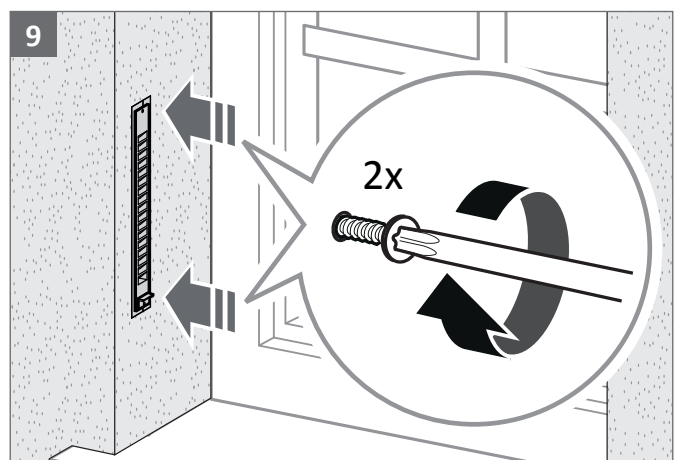
8 Position outlet duct ① and weather grille ② in the vent duct



The lamellae of the weather grille must point downwards.

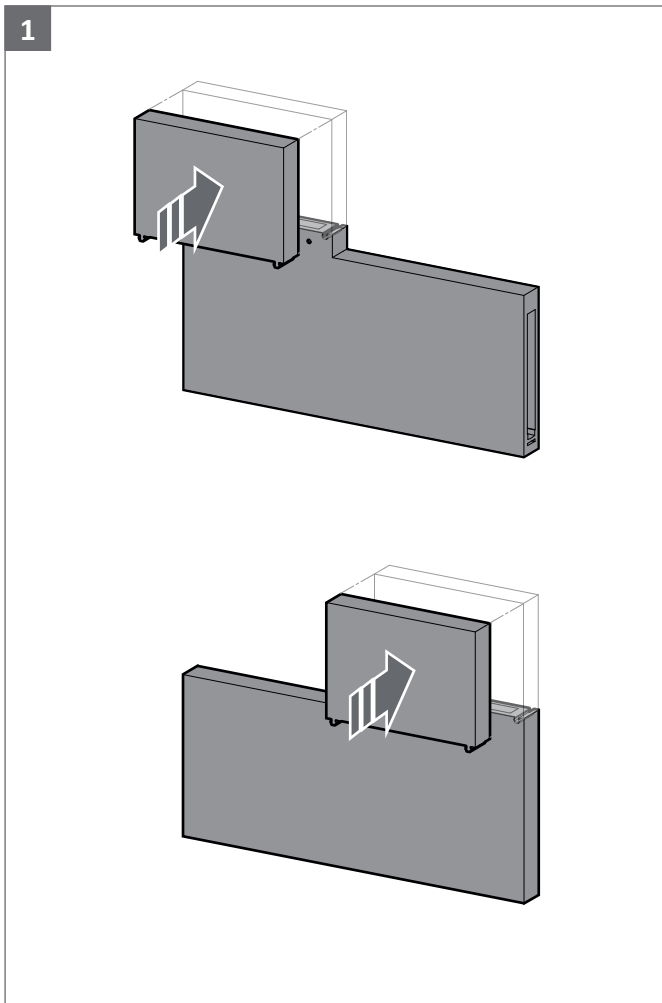


6 Plaster the wall and duct

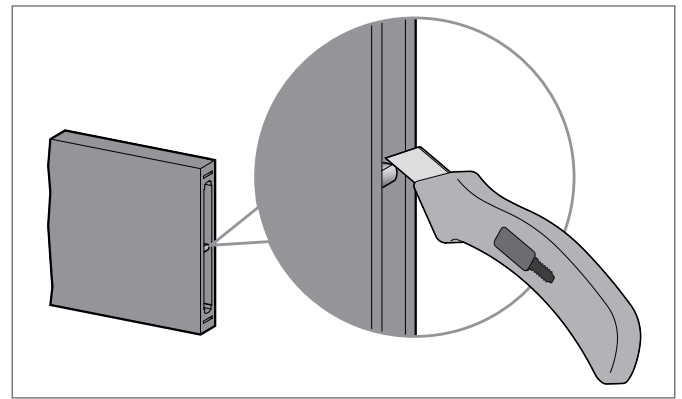


9 Fix the weather grille with dowels/screws

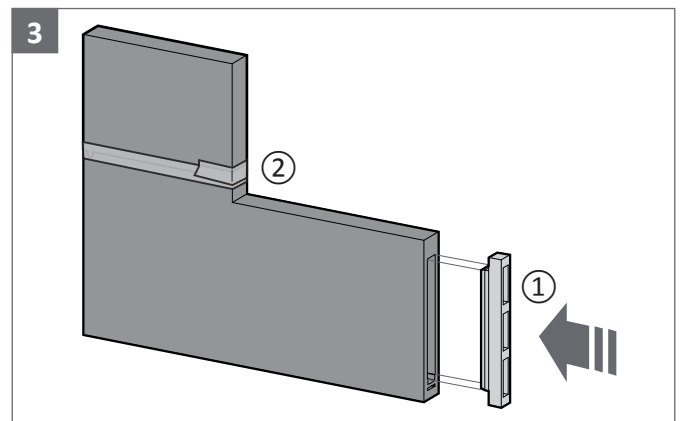
5.2.3 Installation of vent duct type SFL



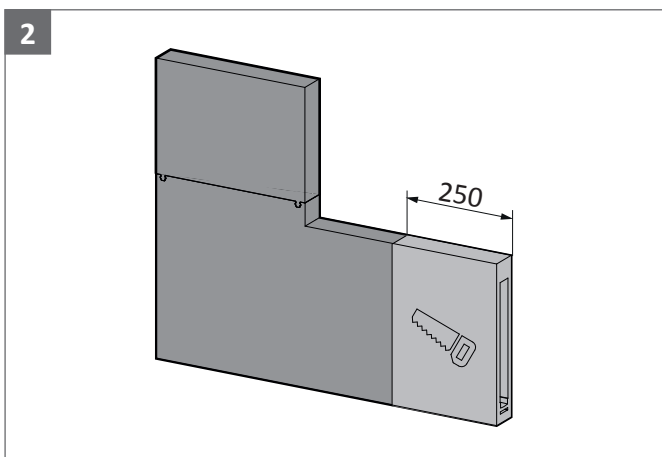
Slide transition piece onto corner drive. The corner drive can point to the left or right according to the installation location.



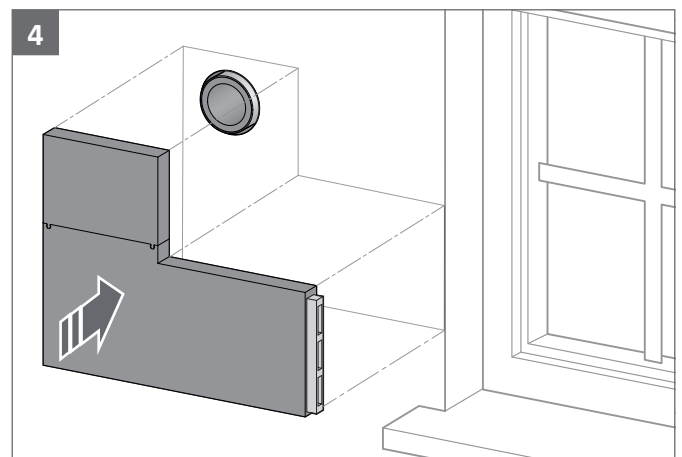
! There is a separating bar inside the duct. If the duct is shortened by more than 200 mm, the separating bar must be cut using the cutter knife.



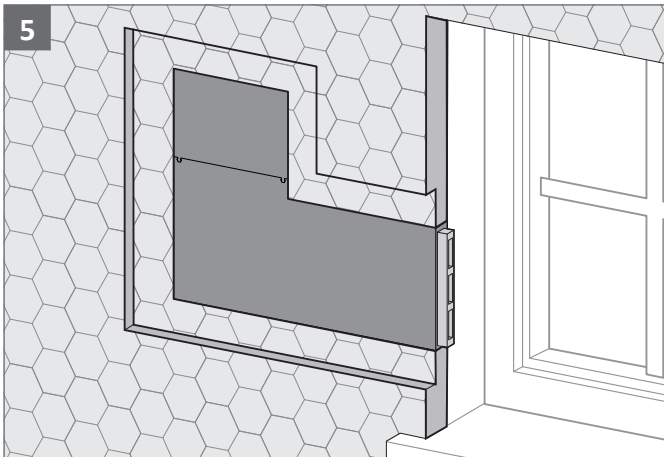
Insert plastic cover ①, ② fix transition piece to corner drive with adhesive tape



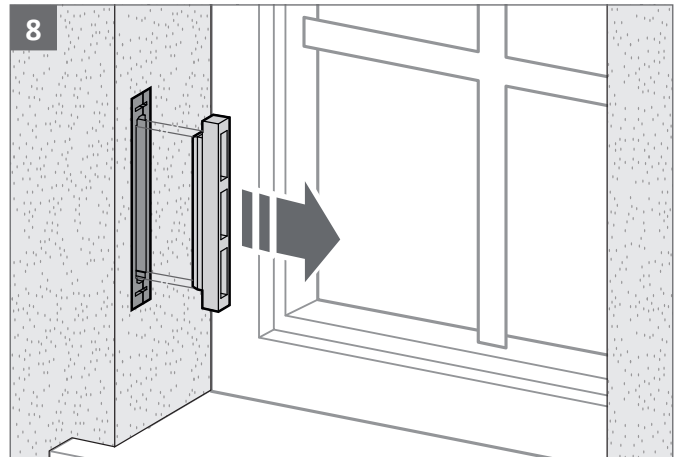
Shorten duct using a saw or cutter knife within the marked area if required.



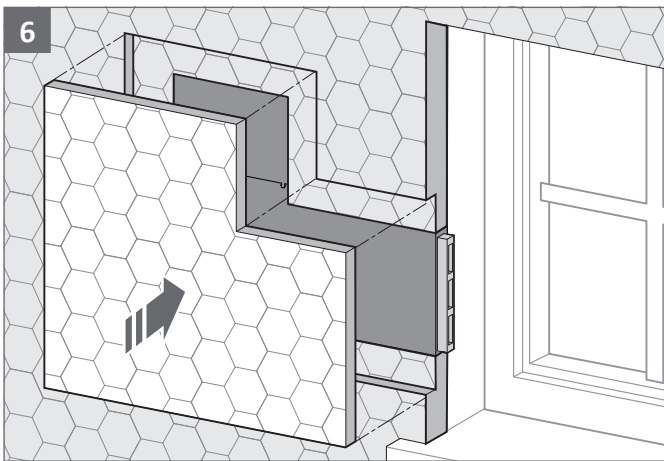
Position duct on pipe and fix to outside wall (screw or glue)



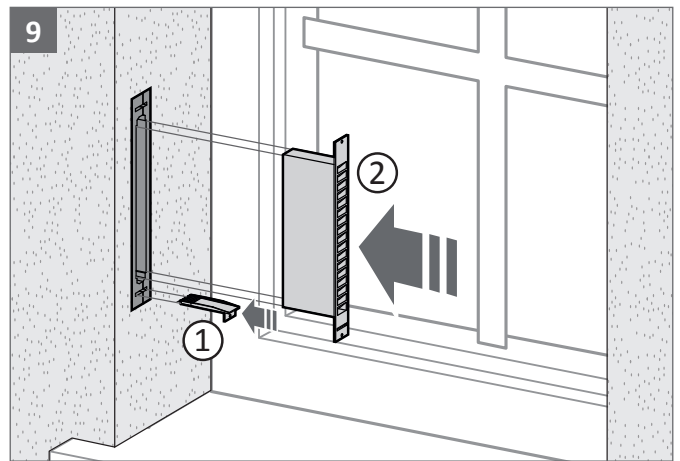
Attach thermal insulation



Remove plastic cover



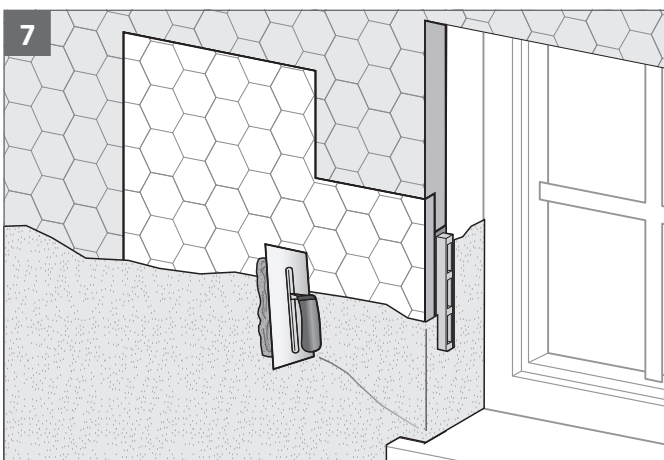
Attach thermal insulation



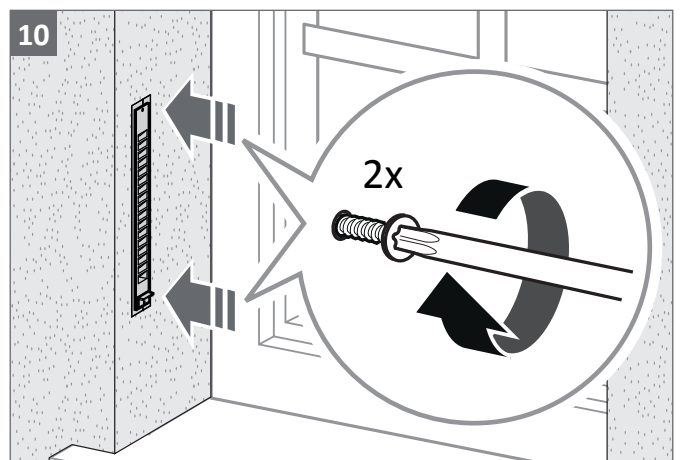
Position outlet duct ① and weather grille ② in the vent duct



The lamellae of the weather grille must point downwards.

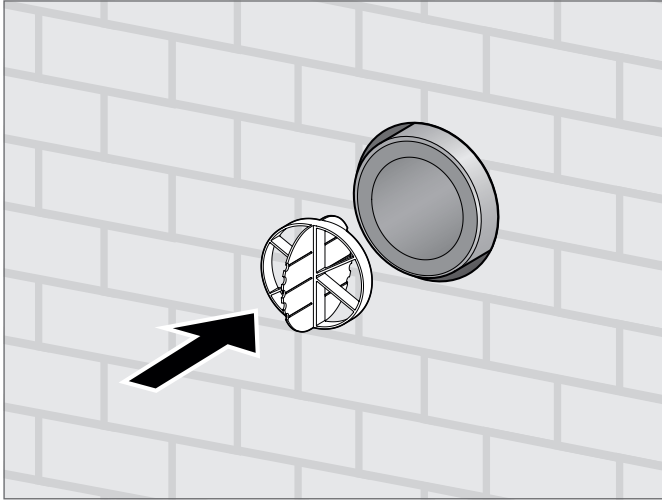


Plaster the wall and duct



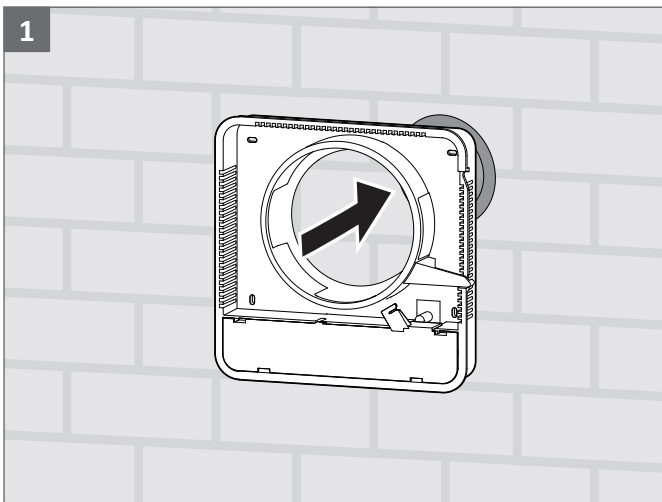
Fix the weather grille with dowels/screws

5.3 Installation of wind pressure barrier

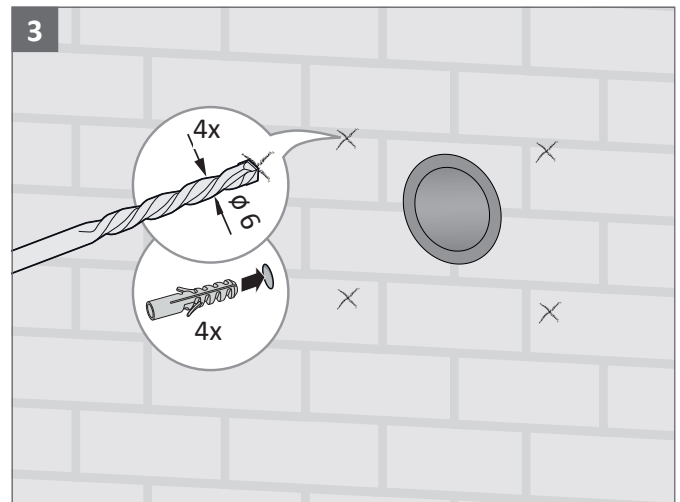


Slide wind pressure barrier into the middle of the ventilation pipe

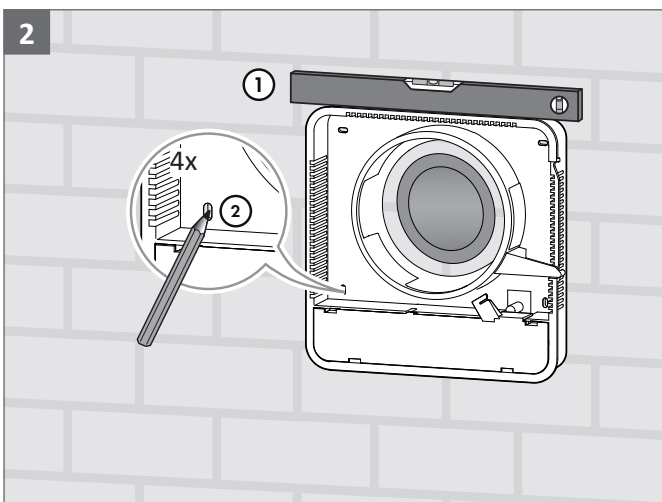
5.4 Installation of the inner panel E28



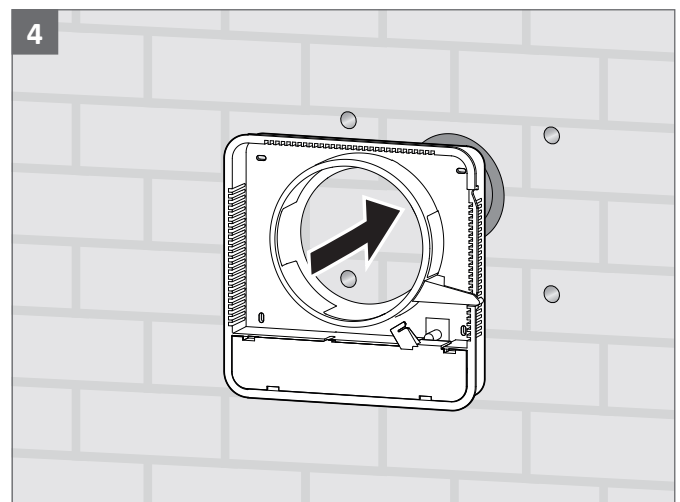
Position casing on the wall



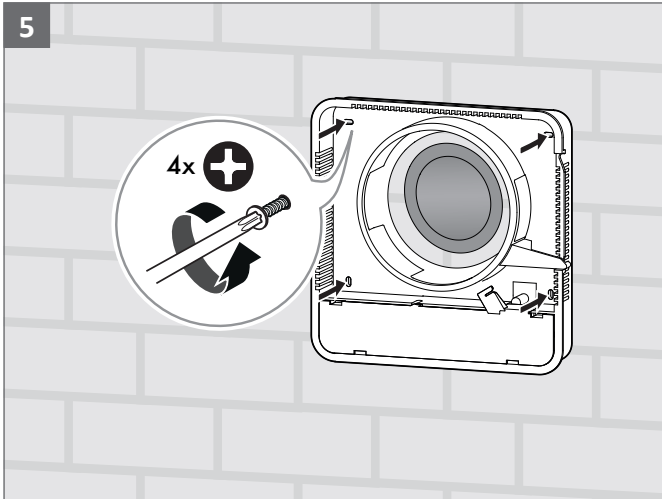
Drill fixing holes and insert dowels



Adjust casing ① and mark fixing holes ②



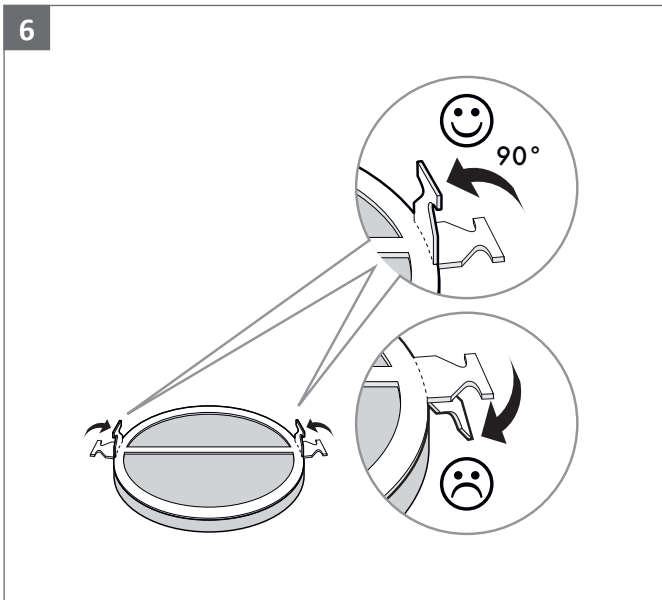
Place casing on the wall



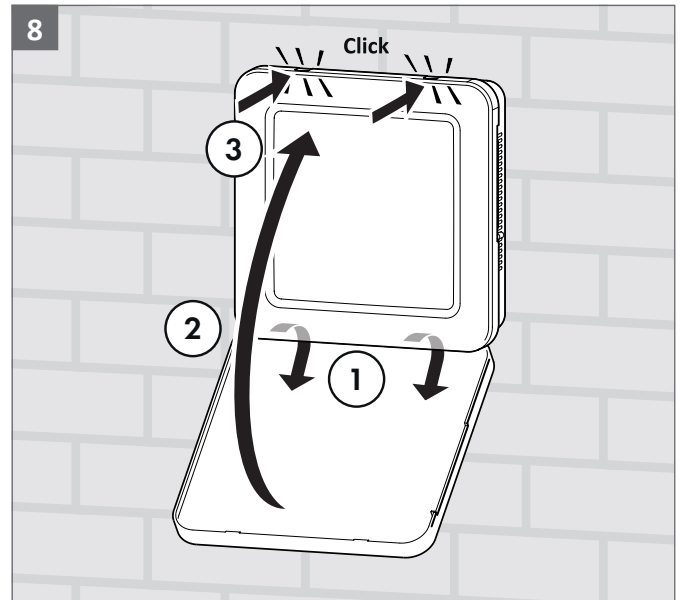
Fix the casing with screws



Slide the filter into the casing as far as the wall



Fold flaps on filter upwards



Hook inner panel into casing ① and lock ② + ③.



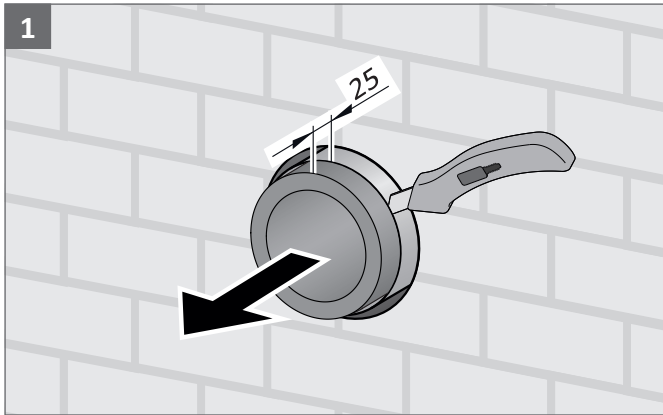
The cable outlet in the inner panel must be on the slider side.

5.5 Installation of the inner panel E18

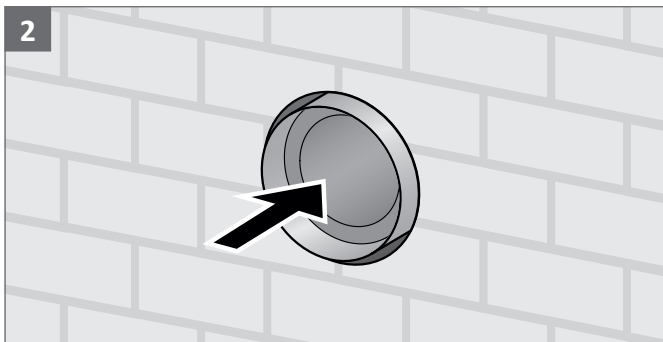


The inner panel E18 can either be plugged, glued or screwed into place.

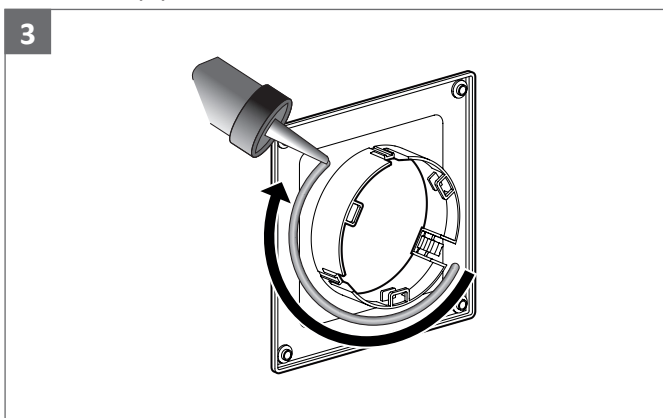
5.5.1 Attaching and gluing the inner panel E18



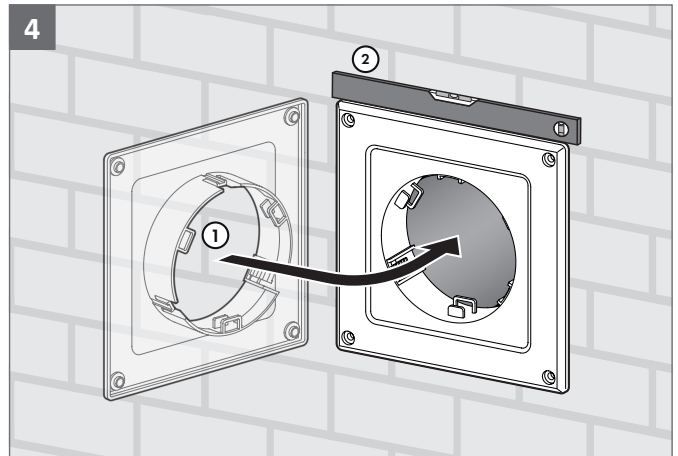
AEROTUBE DD110: pull foam out of the ventilation pipe and shorten by 25 mm using a cutter knife.



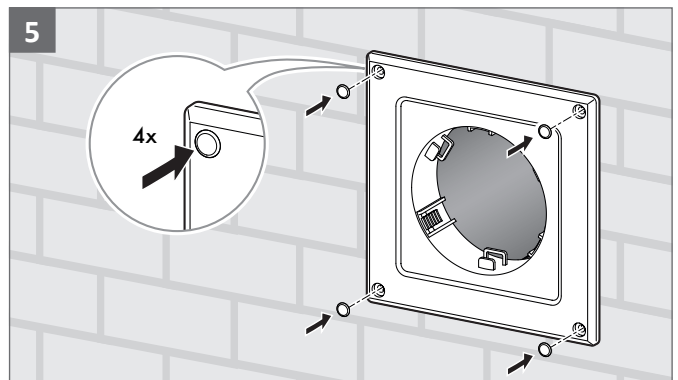
AEROTUBE DD110: slide foam 25 mm into the ventilation pipe.



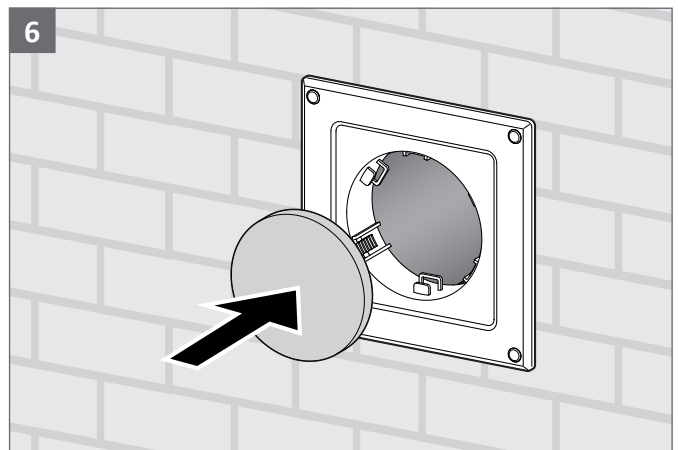
According to the wall structure, apply sealing compound around the socket piece.



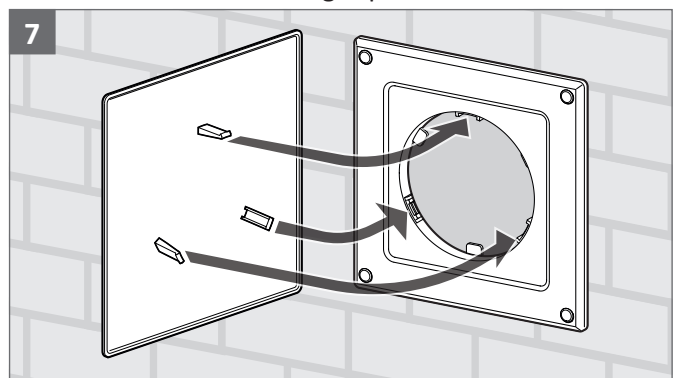
Position casing on the wall and adjust.



Press cover caps onto the casing holes.

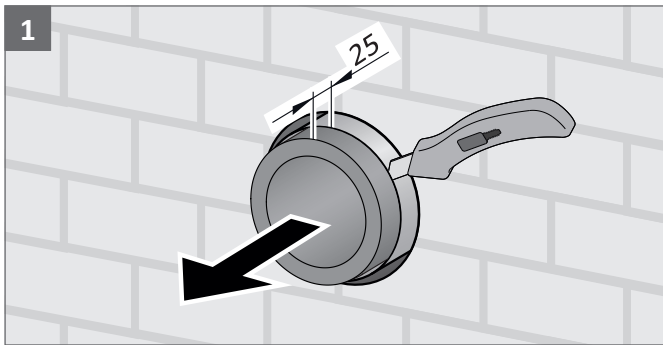


Slide filter behind the fixing clips.

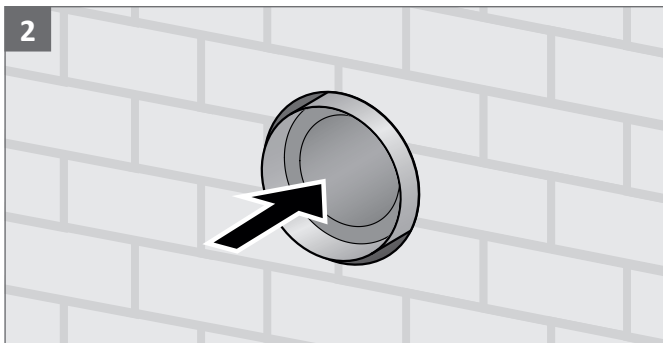


Position inner panel and lock.

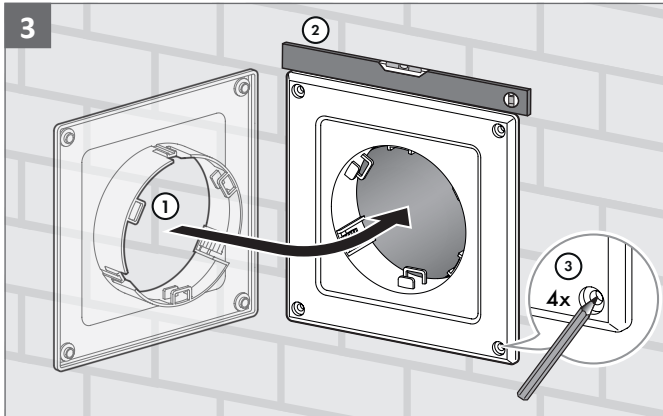
5.5.2 Screwing on the inner panel E18



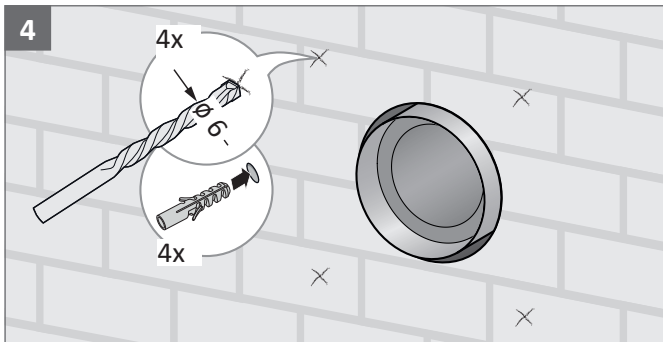
AEROTUBE DD110: pull foam out of the ventilation pipe and shorten by 25 mm using a cutter knife.



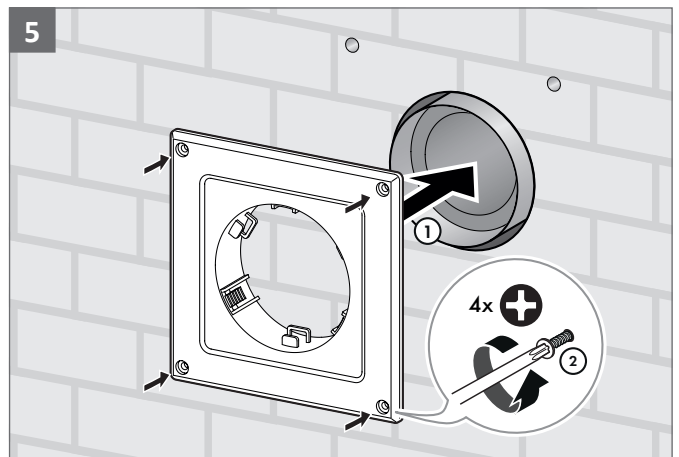
AEROTUBE DD110: slide foam 25 mm into the ventilation pipe.



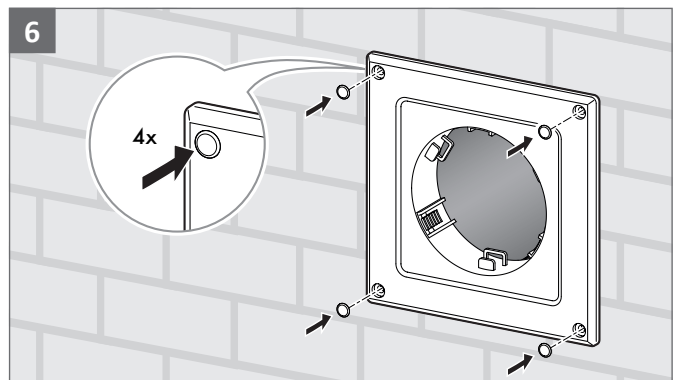
Position casing on the wall, adjust and mark the fixing holes.



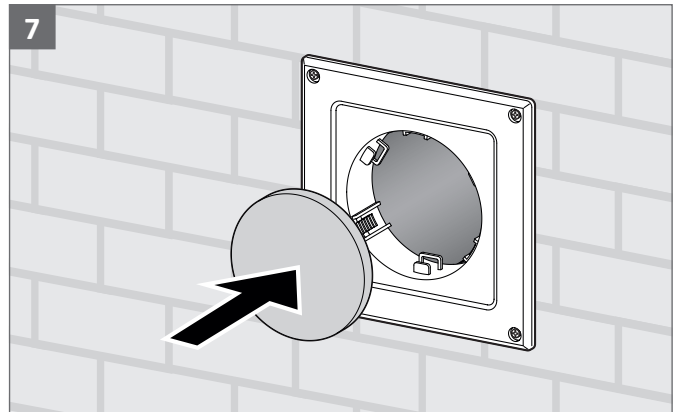
Drill fixing holes and insert dowels.



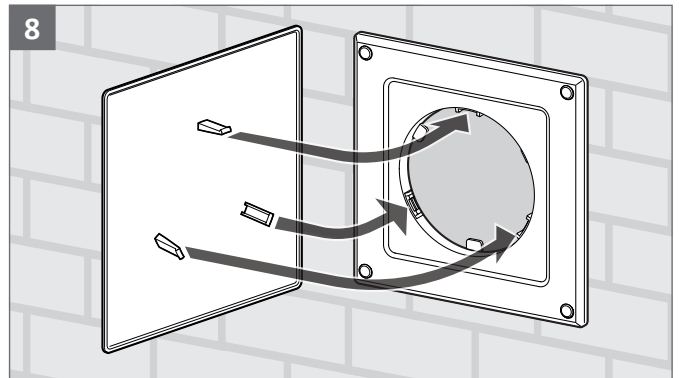
Place casing on the wall and fix with screws.



Press cover caps onto the casing holes.



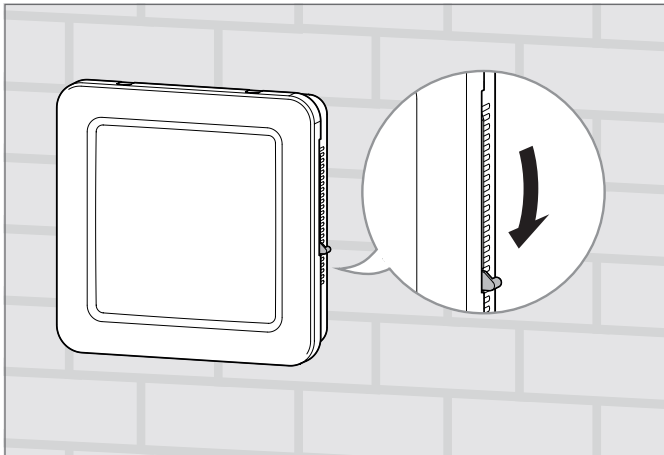
Slide filter behind the fixing clips.



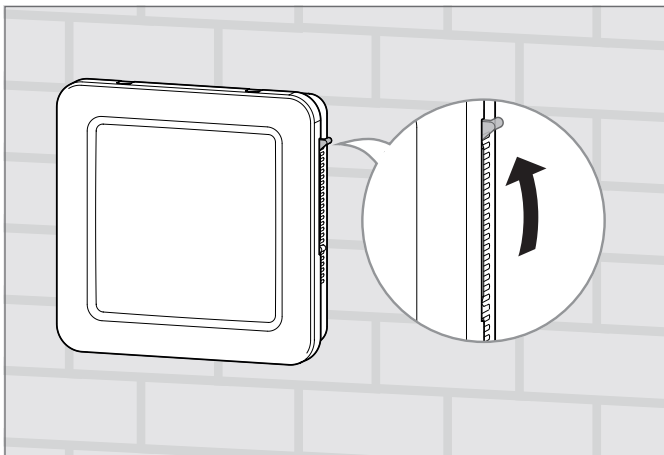
Position inner panel and lock.

6 Operation

6.1 Control of air flow (inner panel E28)

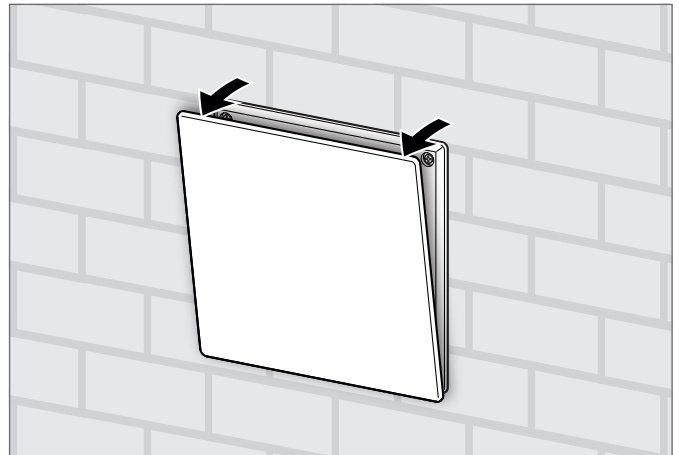


Open sliders

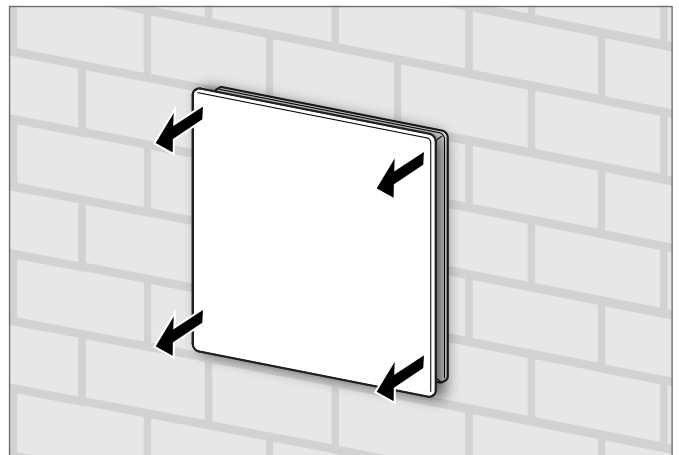


Close sliders

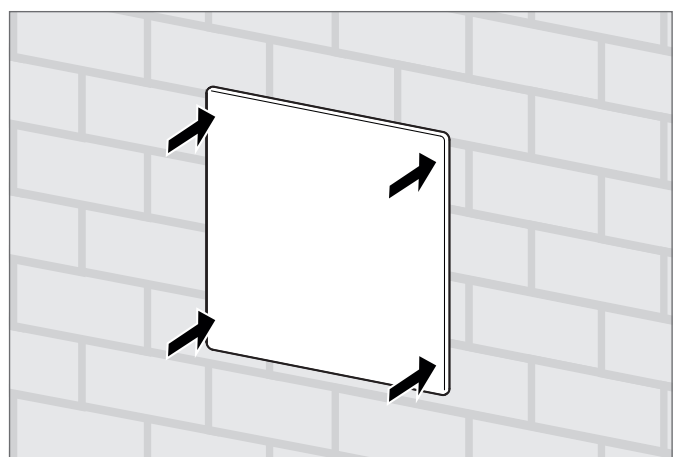
6.2 Control of air flow (inner panel E18)



tilt position



Parallel-action gap



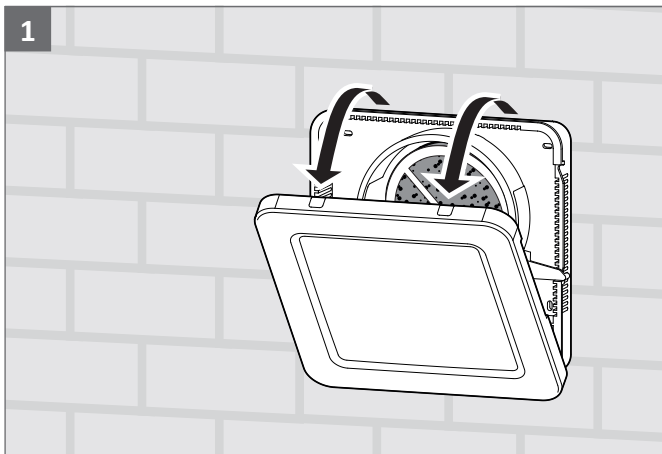
Close

7 Maintenance

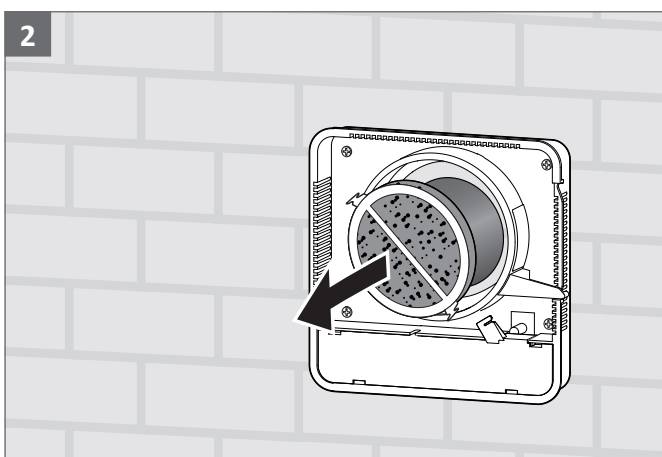
7.1 Cleaning

- Never use cleaning agents that are aggressive or contain solvents, or sharp-edged objects, as these may damage the surfaces of the casing.
- Never clean the unit with a high-pressure cleaner or steam-jet cleaner.
- Clean AEROTUBE with a cloth moistened with a mild soap solution or cleaning agent.
- The filter should be replaced every 12 months, at the latest (according to equipment).
- Only use the original filters from SIEGENIA. You can purchase replacement filters from SIEGENIA or from specialist retailers (see accessories page 5).

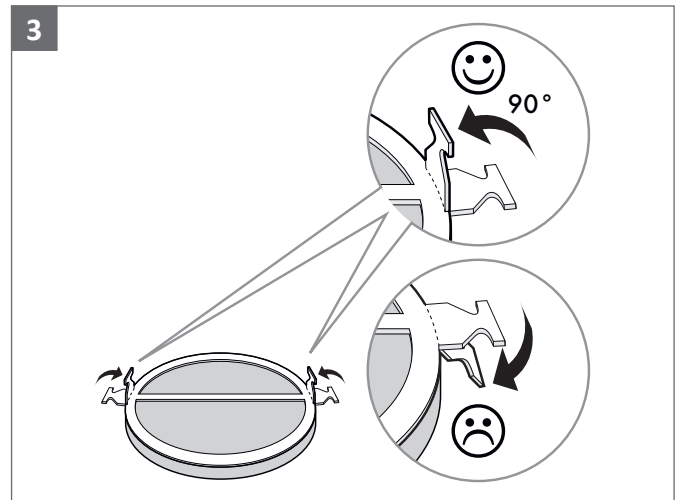
7.2 Replacing the filter (inner panel E28)



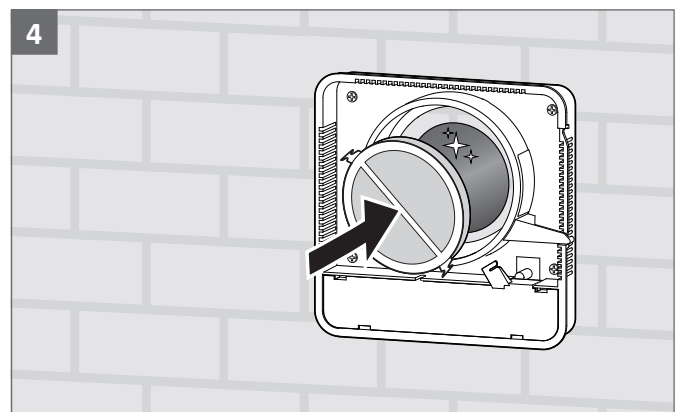
Unfold inner panel and remove



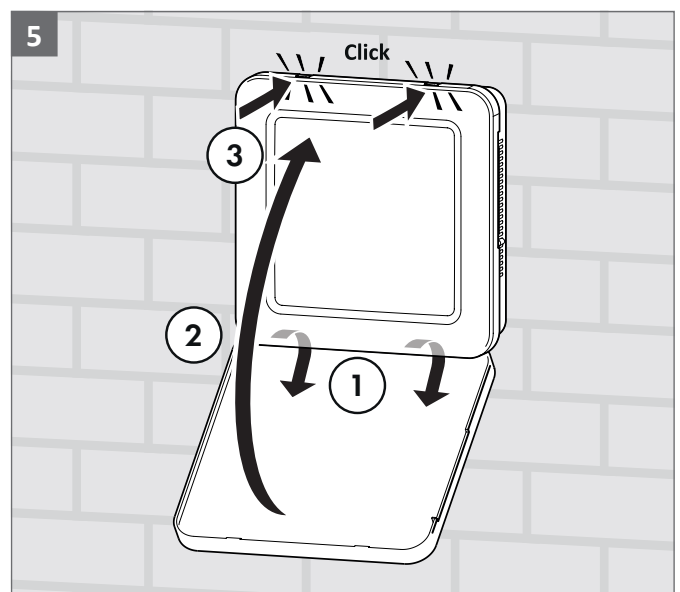
Remove the dirty filter from the casing and dispose of it



Fold flaps on filter upwards



Push the new filter into the casing as far as the wall

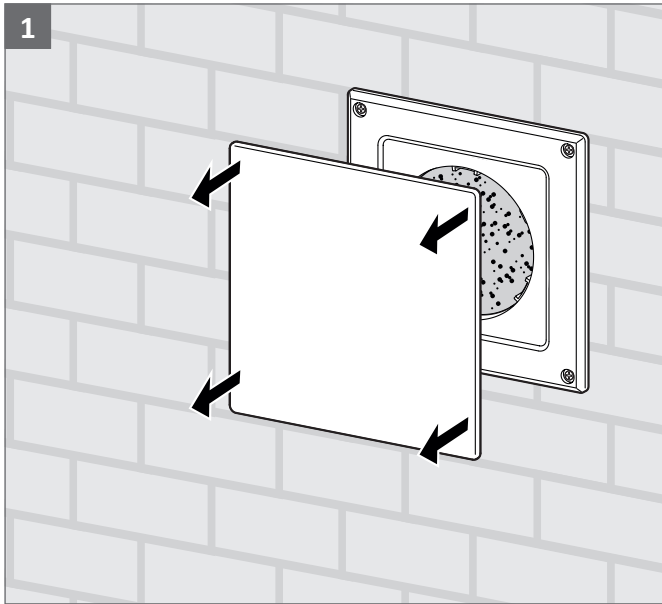


Hook inner panel into casing ① and lock ② + ③.

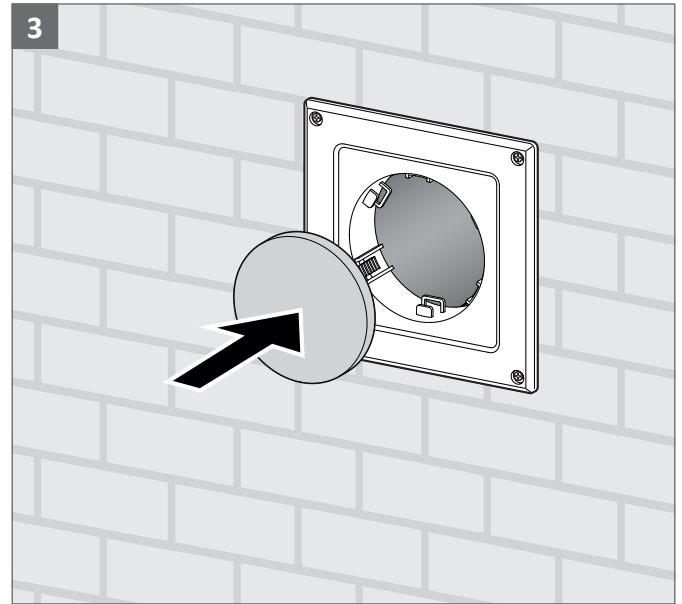


The cable outlet in the inner panel must be on the slider side.

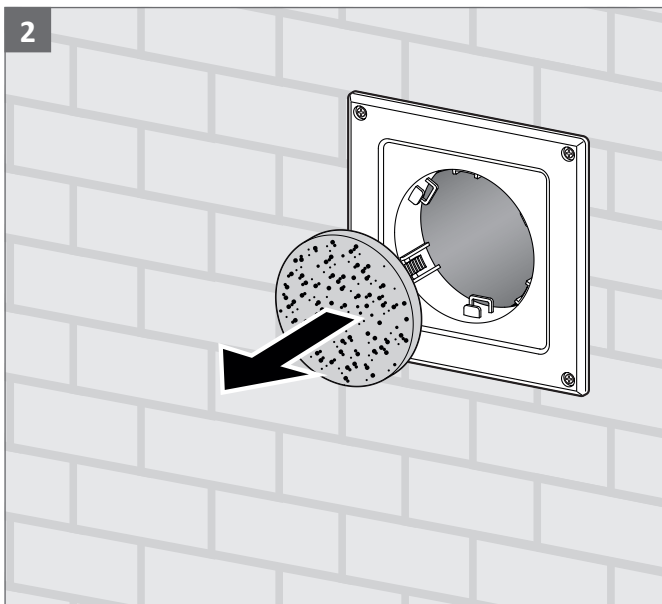
7.3 Replacing the filter (inner panel E18)



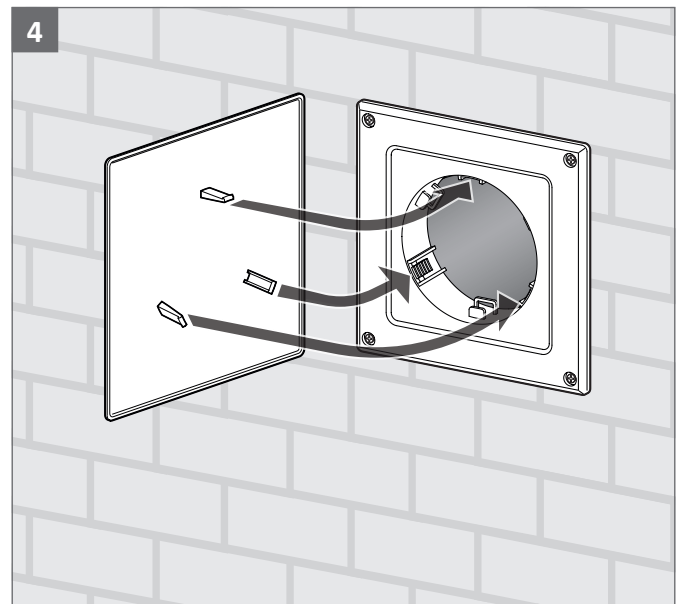
Remove inner panel



Slide the new filter behind the fixing clips



Remove the dirty filter from the casing and dispose of it



Position inner panel and lock

8 Technical specifications

8.1 Data table AEROTUBE DD 110

Weather grille		Stainless steel weather grille hood					
Inner panel		E18 7.5 mm tilt gap		E18 7.5 mm parallel-action gap		E28 open	
pipe length		340 mm	270 mm	340 mm	270 mm	340 mm	270 mm
Air throughput (without SK)	at 2 Pa	4 m ³ /h	4 m ³ /h	8 m ³ /h	8 m ³ /h	11 m ³ /h	11 m ³ /h
	at 4 Pa	5 m ³ /h	5 m ³ /h	10 m ³ /h	10 m ³ /h	22 m ³ /h	22 m ³ /h
	at 8 Pa	8 m ³ /h	8 m ³ /h	17 m ³ /h	17 m ³ /h	25 m ³ /h	25 m ³ /h
	at 10 Pa	9 m ³ /h	9 m ³ /h	19 m ³ /h	19 m ³ /h	27 m ³ /h	27 m ³ /h
	at 20 Pa	13 m ³ /h	13 m ³ /h	29 m ³ /h	29 m ³ /h	39 m ³ /h	39 m ³ /h
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)		57 dB	56 dB	54 dB	53 dB	54 dB	53 dB

Weather grille		PVC weather grille					
Inner panel		E18 7.5 mm tilt gap		E18 7.5 mm parallel-action gap		E28 open	
pipe length		340 mm	270 mm	340 mm	270 mm	340 mm	270 mm
Air throughput (without SK)	at 2 Pa	7 m ³ /h	7 m ³ /h	10 m ³ /h	10 m ³ /h	13 m ³ /h	13 m ³ /h
	at 4 Pa	9 m ³ /h	9 m ³ /h	13 m ³ /h	13 m ³ /h	19 m ³ /h	19 m ³ /h
	at 8 Pa	13 m ³ /h	13 m ³ /h	21 m ³ /h	21 m ³ /h	29 m ³ /h	29 m ³ /h
	at 10 Pa	16 m ³ /h	16 m ³ /h	25 m ³ /h	25 m ³ /h	33 m ³ /h	33 m ³ /h
	at 20 Pa	21 m ³ /h	21 m ³ /h	34 m ³ /h	34 m ³ /h	53 m ³ /h	53 m ³ /h
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)		55 dB	54 dB	52 dB	51 dB	52 dB	51 dB

Vent duct EPP	Type FL		Type SFL	
Inner panel	E18 7.5 mm tilt gap		E18 7.5 mm tilt gap	
pipe length	340 mm	270 mm	340 mm	270 mm
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)	64 dB	63 dB	67 dB	67 dB

Further combination possibilities on request.

8.2 Data table AEROTUBE DD 160

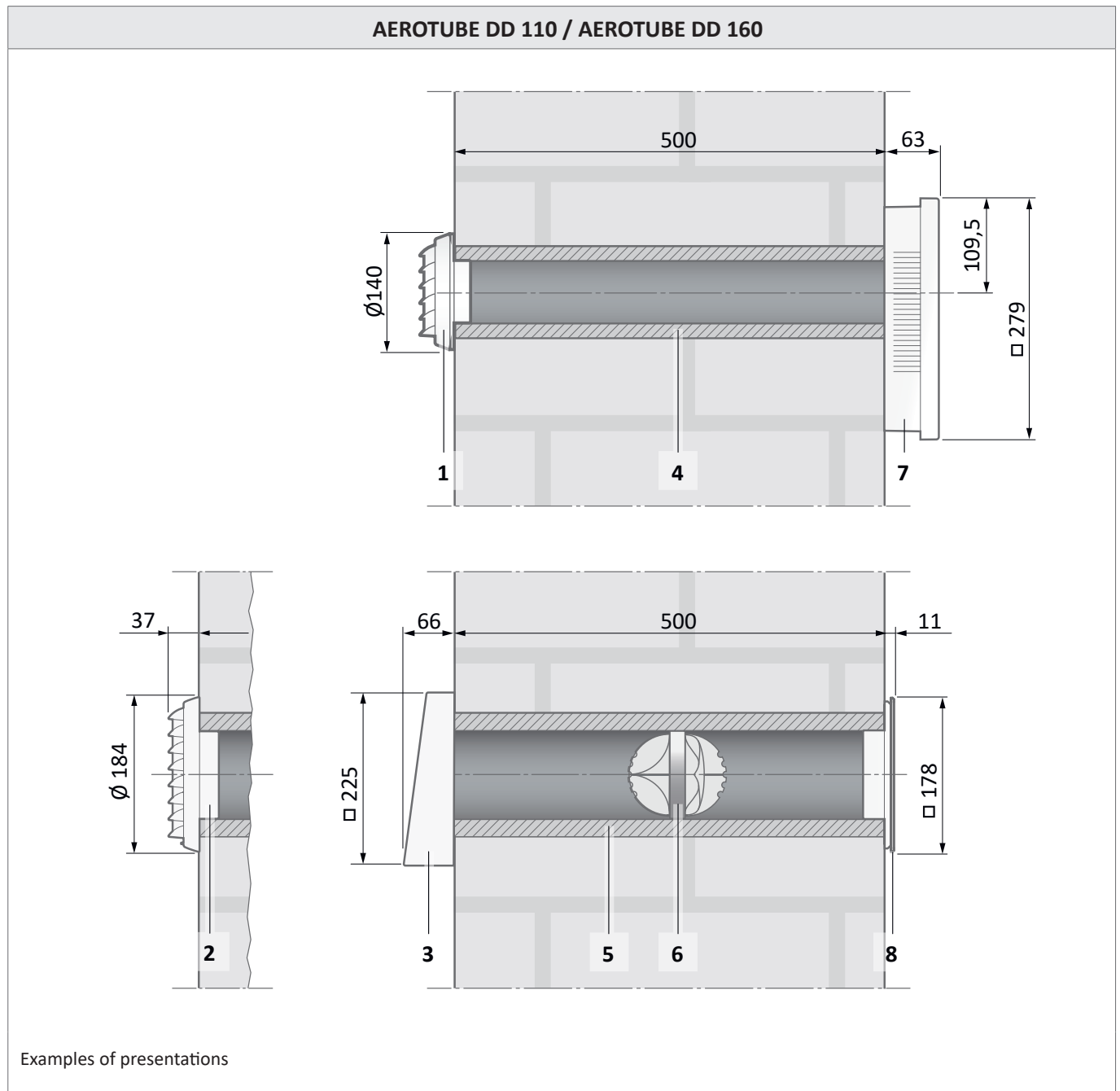
Weather grille		Stainless steel weather grille hood					
Inner panel		E18 7.5 mm tilt gap		E18 7.5 mm parallel-action gap		E28 open	
pipe length		340 mm	270 mm	340 mm	270 mm	340 mm	270 mm
Air throughput (without SK)	at 2 Pa	4 m ³ /h	4 m ³ /h	8 m ³ /h	8 m ³ /h	13 m ³ /h	13 m ³ /h
	at 4 Pa	6 m ³ /h	6 m ³ /h	12 m ³ /h	12 m ³ /h	20 m ³ /h	20 m ³ /h
	at 8 Pa	9 m ³ /h	9 m ³ /h	18 m ³ /h	18 m ³ /h	30 m ³ /h	30 m ³ /h
	at 10 Pa	10 m ³ /h	10 m ³ /h	22 m ³ /h	22 m ³ /h	31 m ³ /h	31 m ³ /h
	at 20 Pa	15 m ³ /h	15 m ³ /h	32 m ³ /h	32 m ³ /h	49 m ³ /h	49 m ³ /h
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)	without SK	57 dB	53 dB	54 dB	50 dB	54 dB	50 dB
	SK2	62 dB	56 dB	59 dB	53 dB	59 dB	53 dB
	SK3	63 dB	57 dB	60 dB	54 dB	60 dB	54 dB
	SK4	65 dB	59 dB	62 dB	56 dB	62 dB	56 dB

Weather grille		PVC weather grille					
Inner panel		E18 7.5 mm tilt gap		E18 7.5 mm parallel-action gap		E28 open	
pipe length		340 mm	270 mm	340 mm	270 mm	340 mm	270 mm
Air throughput (without SK)	at 2 Pa	7 m ³ /h	7 m ³ /h	10 m ³ /h	10 m ³ /h	13 m ³ /h	13 m ³ /h
	at 4 Pa	9 m ³ /h	9 m ³ /h	13 m ³ /h	13 m ³ /h	19 m ³ /h	19 m ³ /h
	at 8 Pa	13 m ³ /h	13 m ³ /h	21 m ³ /h	21 m ³ /h	29 m ³ /h	29 m ³ /h
	at 10 Pa	16 m ³ /h	16 m ³ /h	25 m ³ /h	25 m ³ /h	33 m ³ /h	33 m ³ /h
	at 20 Pa	21 m ³ /h	21 m ³ /h	34 m ³ /h	34 m ³ /h	53 m ³ /h	53 m ³ /h
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)	without SK	54 dB	52 dB	51 dB	49 dB	51 dB	49 dB
	SK2	59 dB	56 dB	56 dB	53 dB	56 dB	53 dB
	SK3	60 dB	57 dB	57 dB	54 dB	57 dB	54 dB
	SK4	61 dB	58 dB	58 dB	55 dB	58 dB	55 dB

Vent duct EPP		Type FL		Type SFL	
Inner panel		E18 7.5 mm tilt gap		E18 7.5 mm tilt gap	
pipe length		340 mm	270 mm	340 mm	270 mm
Sound absorption D _{n,e,w} (measured according to DIN EN 10140-2)	without SK	65 dB	64 dB	71 dB	66 dB
	SK2	69 dB	67 dB	73 dB	69 dB
	SK3	71 dB	68 dB	75 dB	69 dB
	SK4	73 dB	71 dB	75 dB	72 dB

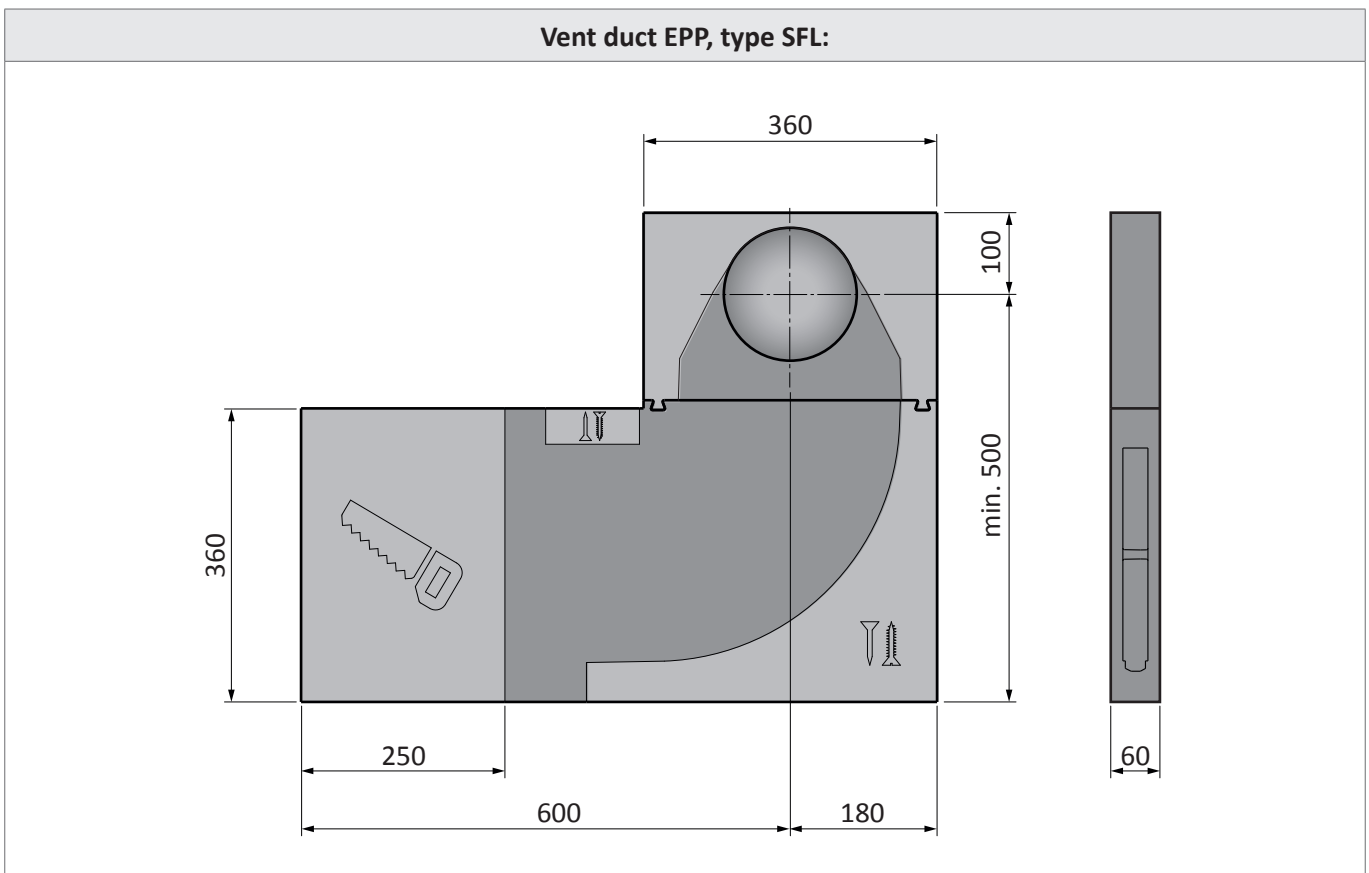
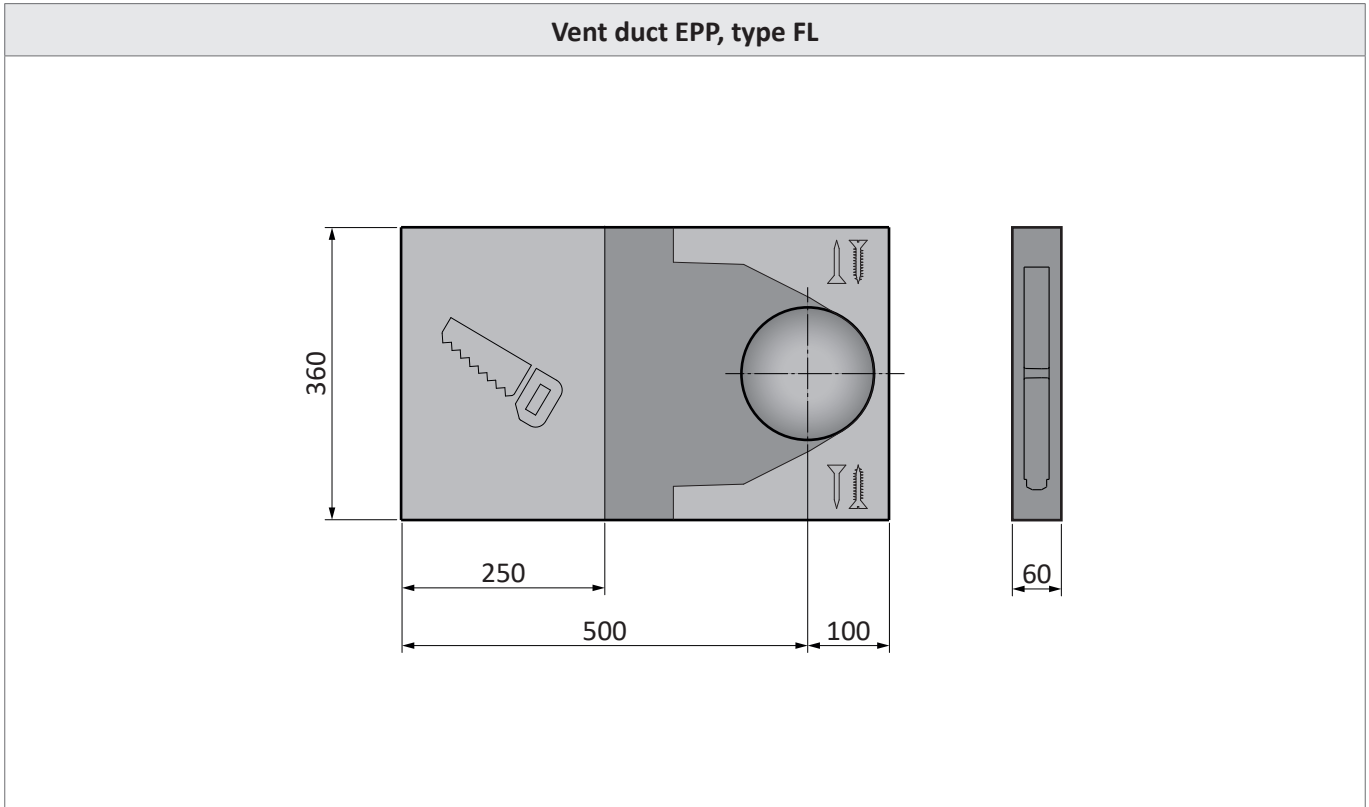
Further combination possibilities on request.

8.3 Dimensions AEROTUBE and weather grill variants



Item	name
1	Weather grille PVC D 110 (AEROTUBE DD 110)
2	Weather grille PVC D 160 (AEROTUBE DD 160)
3	Stainless steel weather grille hood
4	Ventilation pipe Ø 110 mm (AEROTUBE DD 110)
5	Ventilation pipe Ø 160 mm (AEROTUBE DD 160)
6	Wind pressure barrier for ventilation pipe Ø 160
7	Inner panel E28
8	Inner panel E18

8.4 Dimensions of vent duct EPP

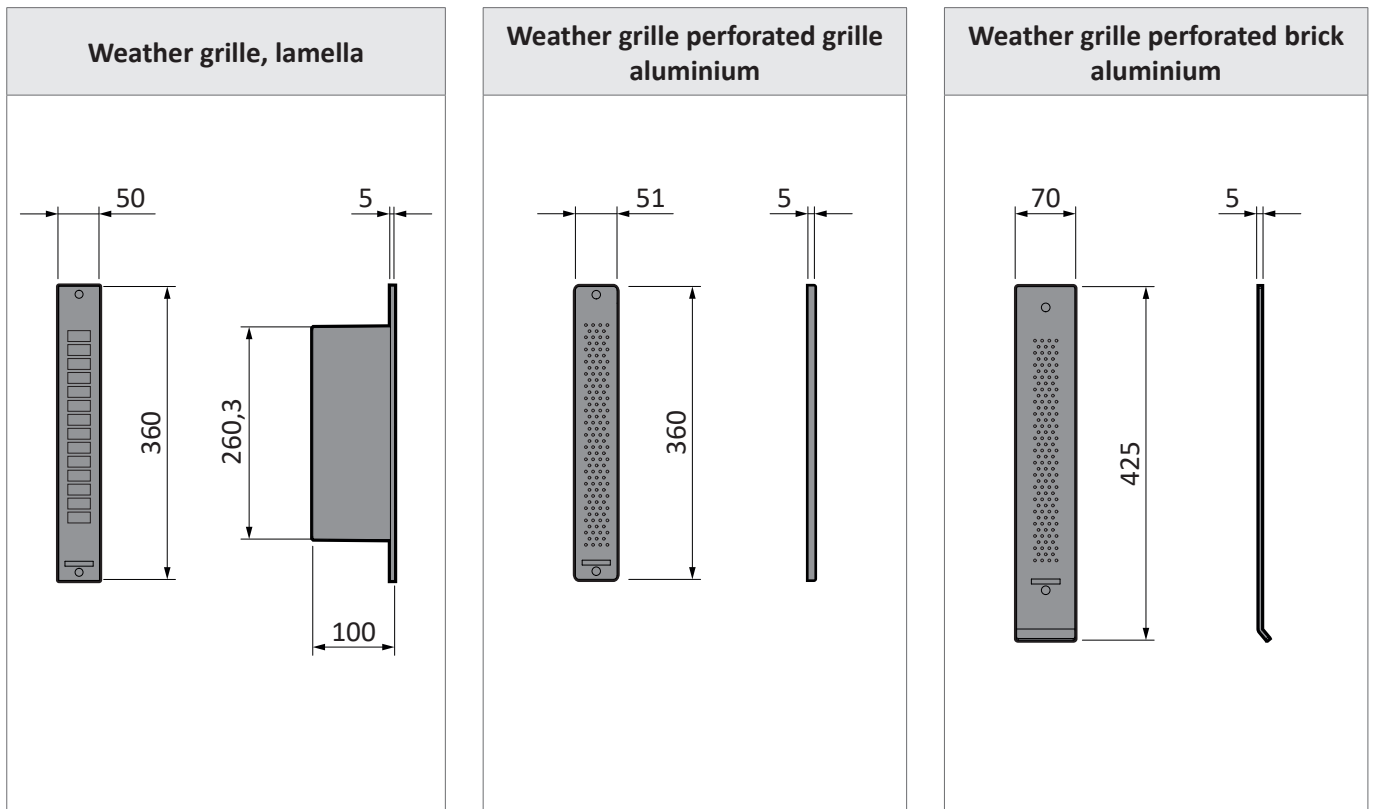


cropping area

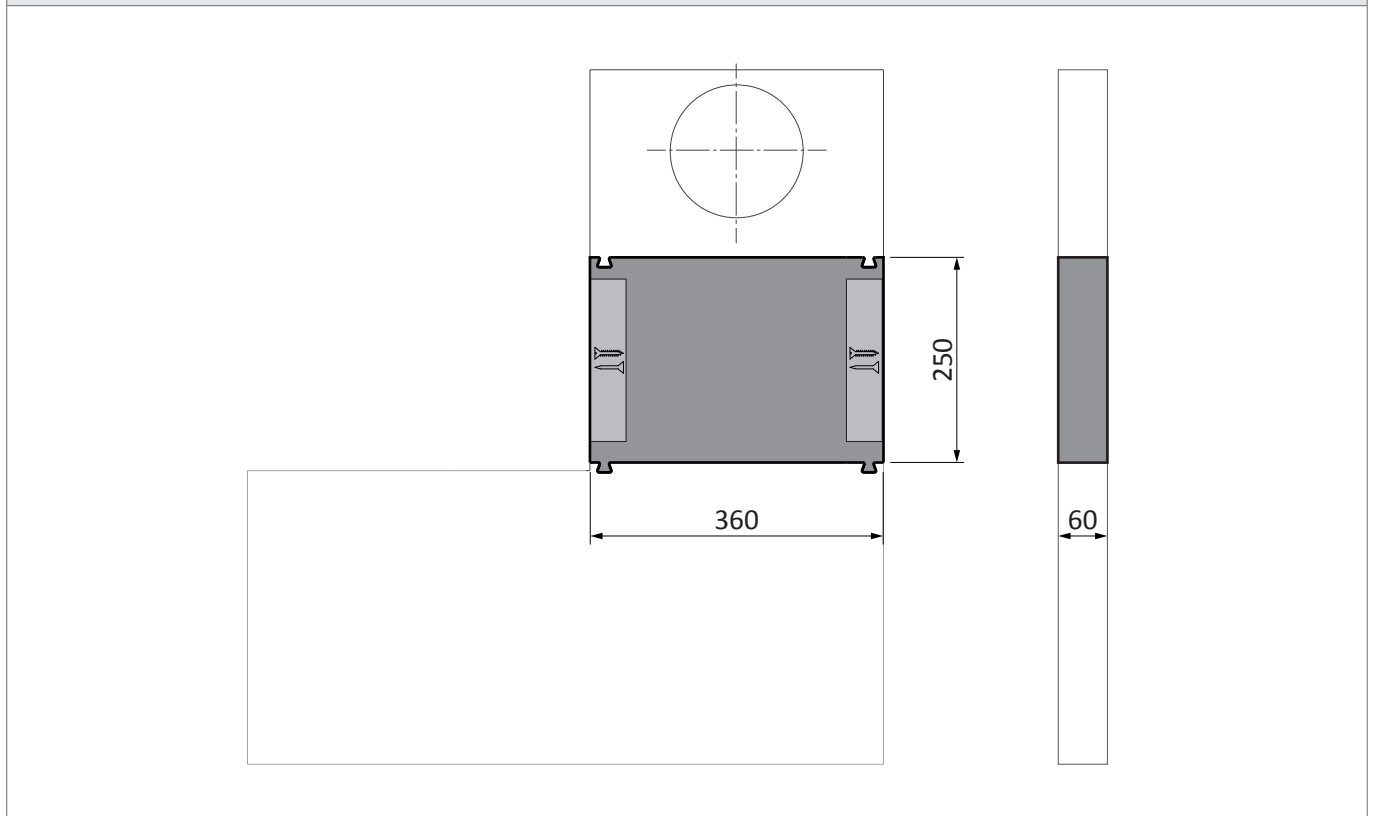


penetration area
 e.g. for screws or insulation material dowels

8.5 Dimensions of accessories for vent duct EPP



extension for vent duct EPP, type SFL



cropping area



penetration area
e.g. for screws or insulation material dowels

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