INSTALLATION MANUAL FLUSH-MOUNTED HOUSING LG 100

COMFORT VENTILATION

AUSTRIA

ErP 2018

EU-regulation 1253/2014

EPREL

PICHLER

Systematic ventilation.

GENERAL

USERS

SPECIALIST PERSONNEL

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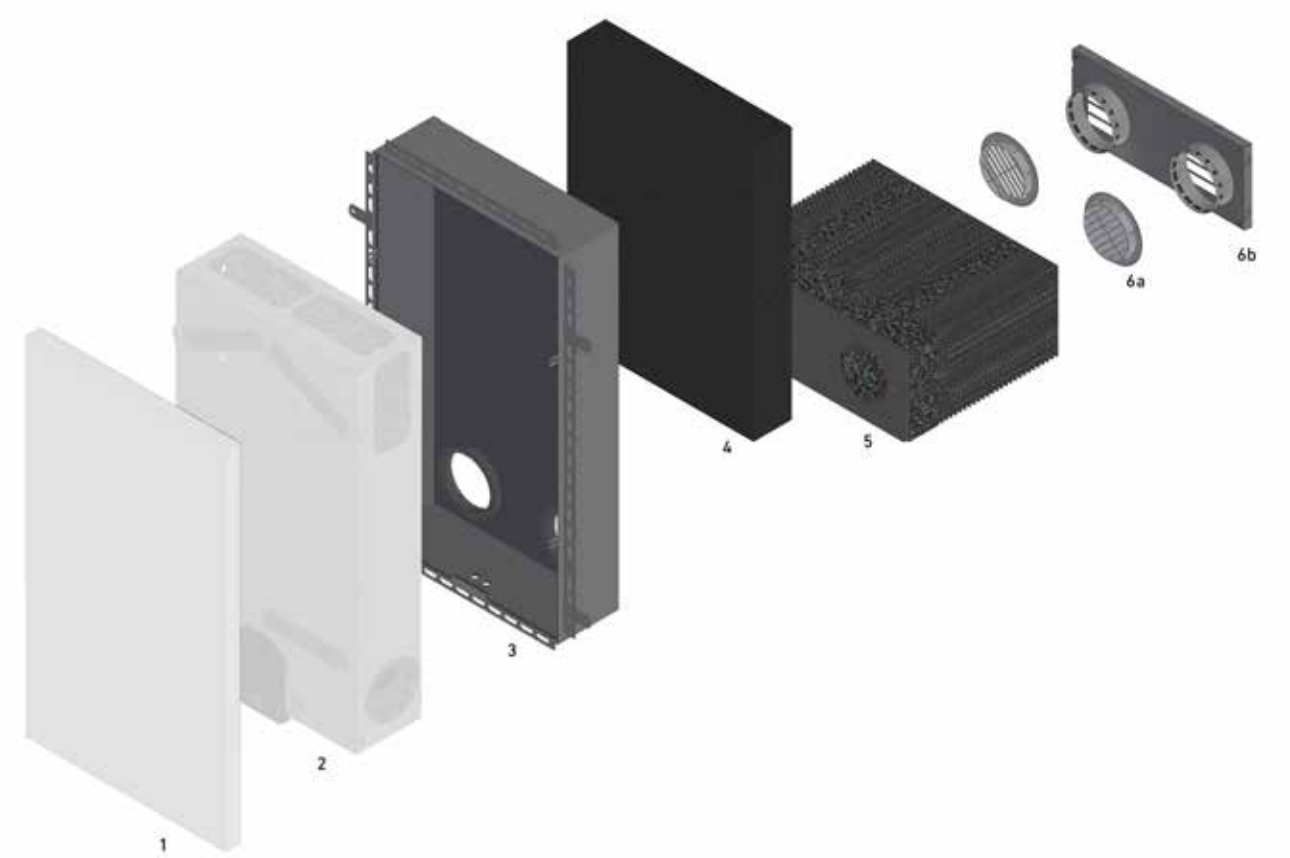
1.1. Installation variant with facade finish

1.1.1. SINGLE-ROOM APPLICATION

The compact ventilation unit LG100 in flush-mounted design consists of a flush-mounted housing (3) and a ventilation unit as slide-in module (2).

The ventilation unit is closed with a design front (1) at its front side. The outdoor air and exhaust air connections are led outside through a wall duct (5). On the rear side of the housing the compensation plate (4) still has to be mounted. The outdoor air and exhaust air connections are sealed by means of weather protection grilles (6a or 6b).



Single-room application

In the shell construction phase, the flush-mounted housing (3) including the compensation plate (4) and wall duct (5) is mounted.

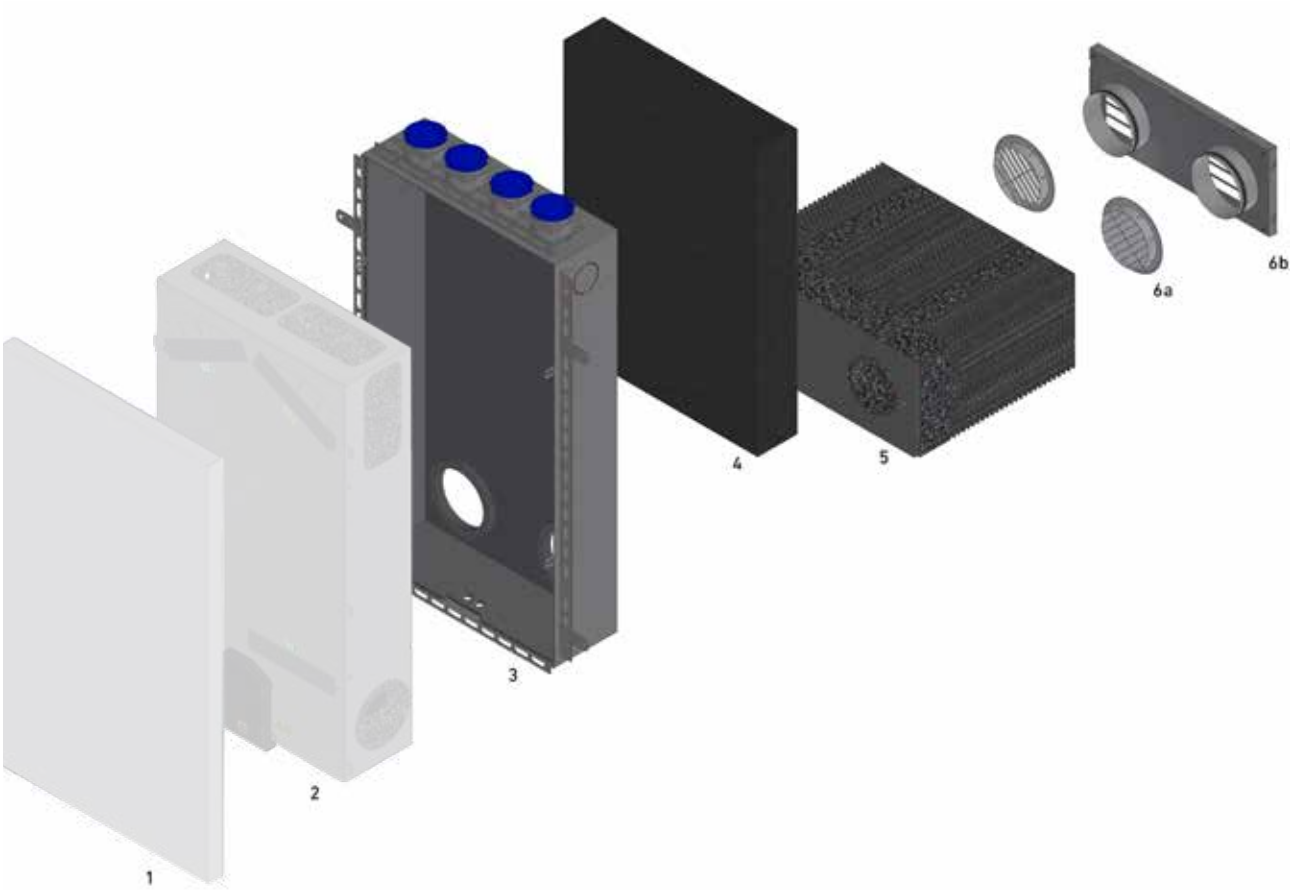
In the course of the installation work, the slide-in module (2) is inserted into the flush-mounted housing (3) and is electrically connected.

1 and 2 are not required in the shell construction phase and will not be dealt with in this installation manual.

1.1.2. MULTI-ROOM APPLICATION

The compact ventilation unit LG100 in flush-mounted design consists of a flush-mounted housing (3) with pre-assembled connectors and a ventilation unit as slide-in module (2).

The ventilation unit is closed with a design front (1) at its front side. The outdoor air and exhaust air connections are led outside through a wall duct (5). On the rear side of the housing the compensation plate (4) still has to be mounted. The outdoor air and exhaust air connections are sealed by means of weather protection grilles (6a or 6b).



Multi-room application

In the shell construction phase, the flush-mounted housing (3) including the compensation plate (4) and wall duct (5) is mounted.

For multi-room applications, the piping leading upwards for the supply and extract air is provided in addition. In the course of the installation work, the slide-in module (2) is inserted into the flush-mounted housing (3) and is electrically connected.

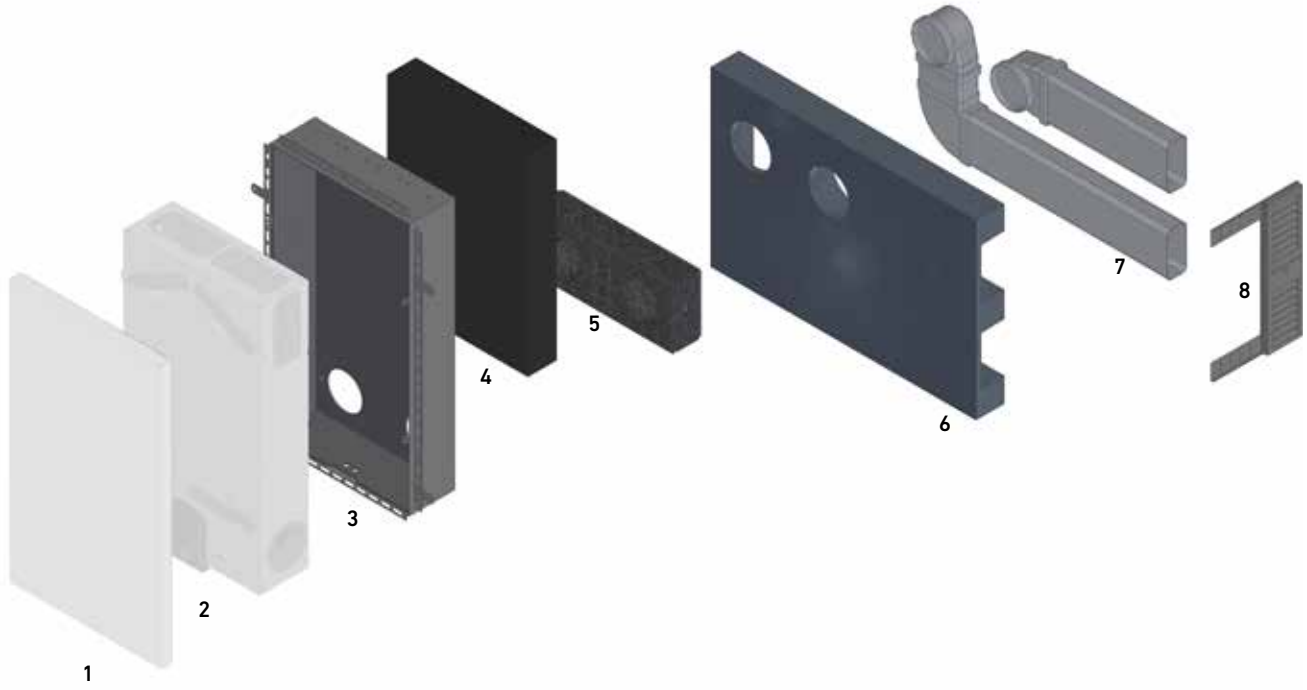
1 and 2 are not required in the shell construction phase and will not be dealt with in this installation manual.

1.2. Installation variant with connection to the reveal

1.2.1. SINGLE-ROOM APPLICATION

The compact ventilation unit LG100 in flush-mounted design for reveals consists of a flush-mounted housing (3) and a ventilation unit as slide-in module (2).

The ventilation unit is closed with a design front (1) at its front side. The outdoor air and exhaust air connections are led outside through a wall duct (4) and must be flush with the masonry. On the rear side of the housing the compensation plate (5) still has to be mounted. The wall duct is connected to the connection set (7) and led towards the reveal. The outdoor and exhaust air connections are sealed by means of a weather protection grille (8).



Single-room application

In the shell construction phase, the flush-mounted housing (3) including the wall duct (4) is mounted.

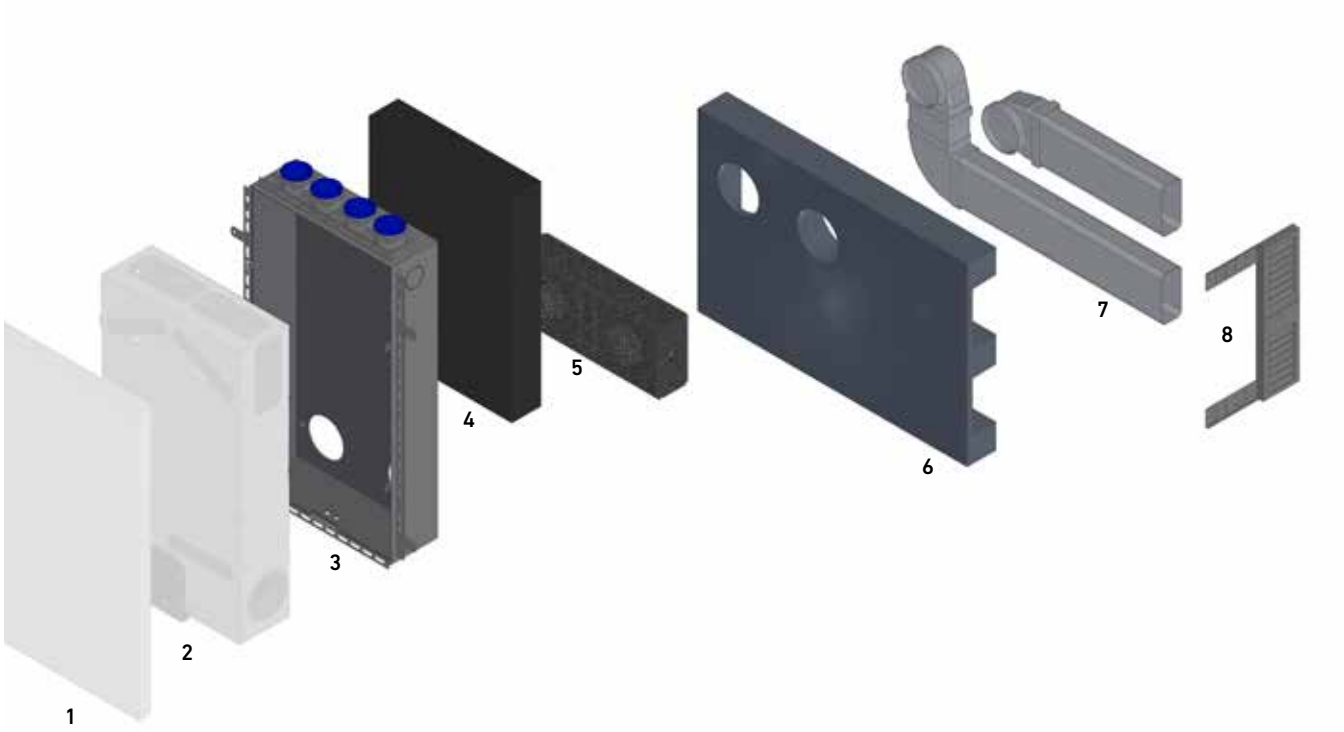
The connection set (7) is mounted in the process of insulating the exterior walls and integrated into the insulation. In the course of the installation work, the slide-in module (2) is inserted into the flush-mounted housing (3) and is electrically connected.

1 and 2 are not required in the shell construction phase and will not be dealt with in this installation manual.

1.2.2. MULTI-ROOM APPLICATION

The compact ventilation unit LG100 in flush-mounted design for reveals consists of a flush-mounted housing (3) with pre-assembled connectors and a ventilation unit as slide-in module (2).

The ventilation unit is closed with a design front (1) at its front side. The outdoor air and exhaust air connections are led outside through a wall duct (4) and must be flush with the masonry. On the rear side of the housing the compensation plate (5) still has to be mounted. The wall duct is connected to the connection set (7) and led towards the reveal. The outdoor and exhaust air connections are sealed by means of a weather protection grille (8).



Multi-room application

In the shell construction phase, the flush-mounted housing (3) including the wall duct (4) is mounted.

For multi-room applications, the piping leading upwards for the supply and extract air is provided in addition. The connection set (7) is mounted in the process of insulating the exterior walls and integrated into the insulation. In the course of the installation work, the slide-in module (2) is inserted into the flush-mounted housing (3) and is electrically connected.

1 and 2 are not required in the shell construction phase and will not be dealt with in this installation manual.

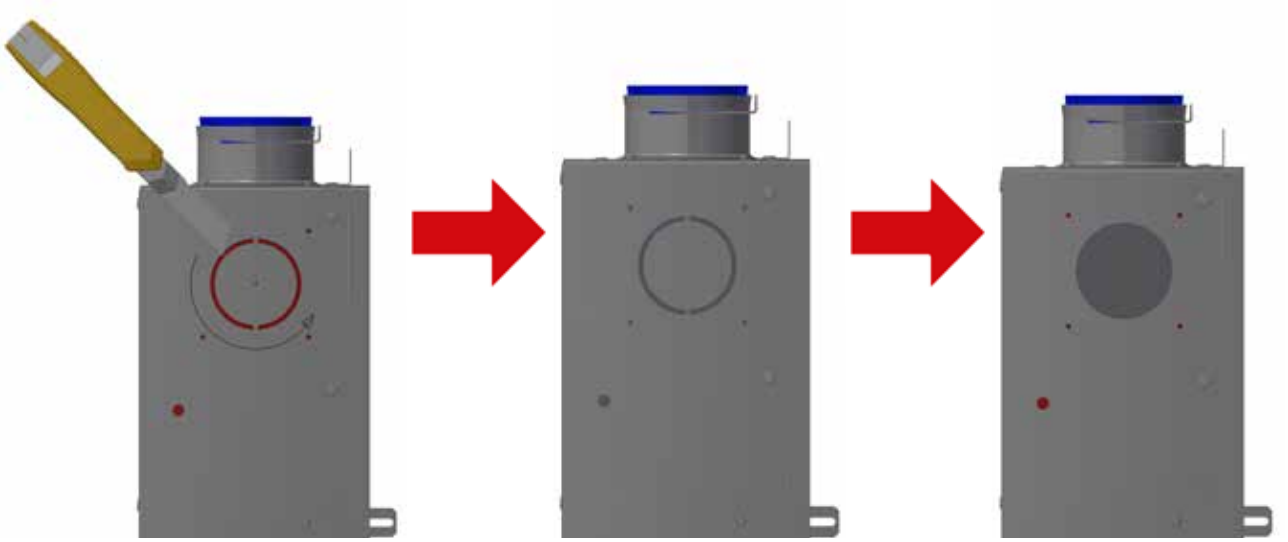
1.3. Overview of components

Overview of components		
Designation	**Item number**	**Drawing**
Flush-mounted housing	08LG100UPGERA for single-room application	
	08LG100UPGMRA for multi-room application	
EPP wall duct incl. mounting accessories	08LG100UPWD	
Expansion set for multi-room application incl. sealing and mounting accessories	08LG100UPESETA	
Plaster cover	30KARTONLG1004A	
LG 100 UP levelling insulation EPS 100 mm	08LG100UPAGD1A	
Components for the facade finish		
Plastic grille NW 155 for pipe diameter 80-125 mm	10TU125B	
Plastic grille NW 170, foldable, mountable from the inside, for pipe diameter 100-140 mm	10DF140B	
Exterior wall element NW 125 Steel sheet, galvanised, powder-coated in RAL 9003	08LG100AWE1A	
Components for the connection to the reveal		
LG 100 UP/AP insulation panel	08LG100FLDPA	
Connection set outdoor/exhaust air duct for reveal	08LG100FLASETA	
Exterior wall element for reveal Steel sheet, galvanised, powder-coated in RAL 9003	08LG100FLAWE1A	

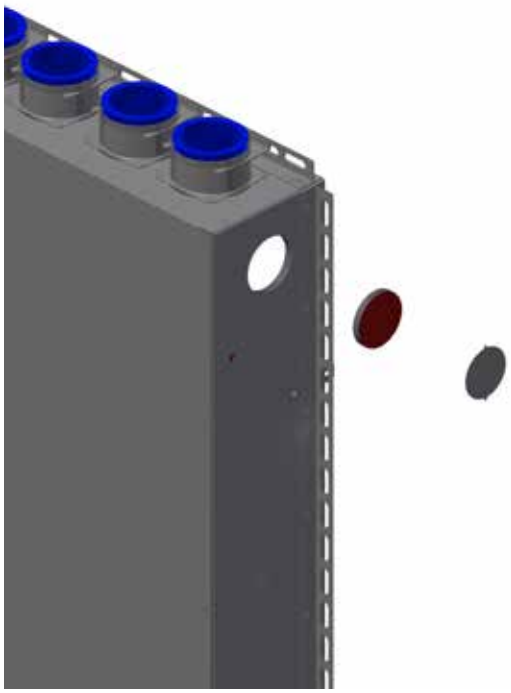
2. Preparatory work

2.1. Multi-room application: Extension of lateral connections (optional):

The exhaust air and supply air casing can be supplemented by one other connection in each case (accessories set, article number: 08LG100UPESETA) at the side of the housing. Prior to the installation, the insulation must be cut out circumferentially using a knife, and the sheet must be broken out at the predetermined breaking points.

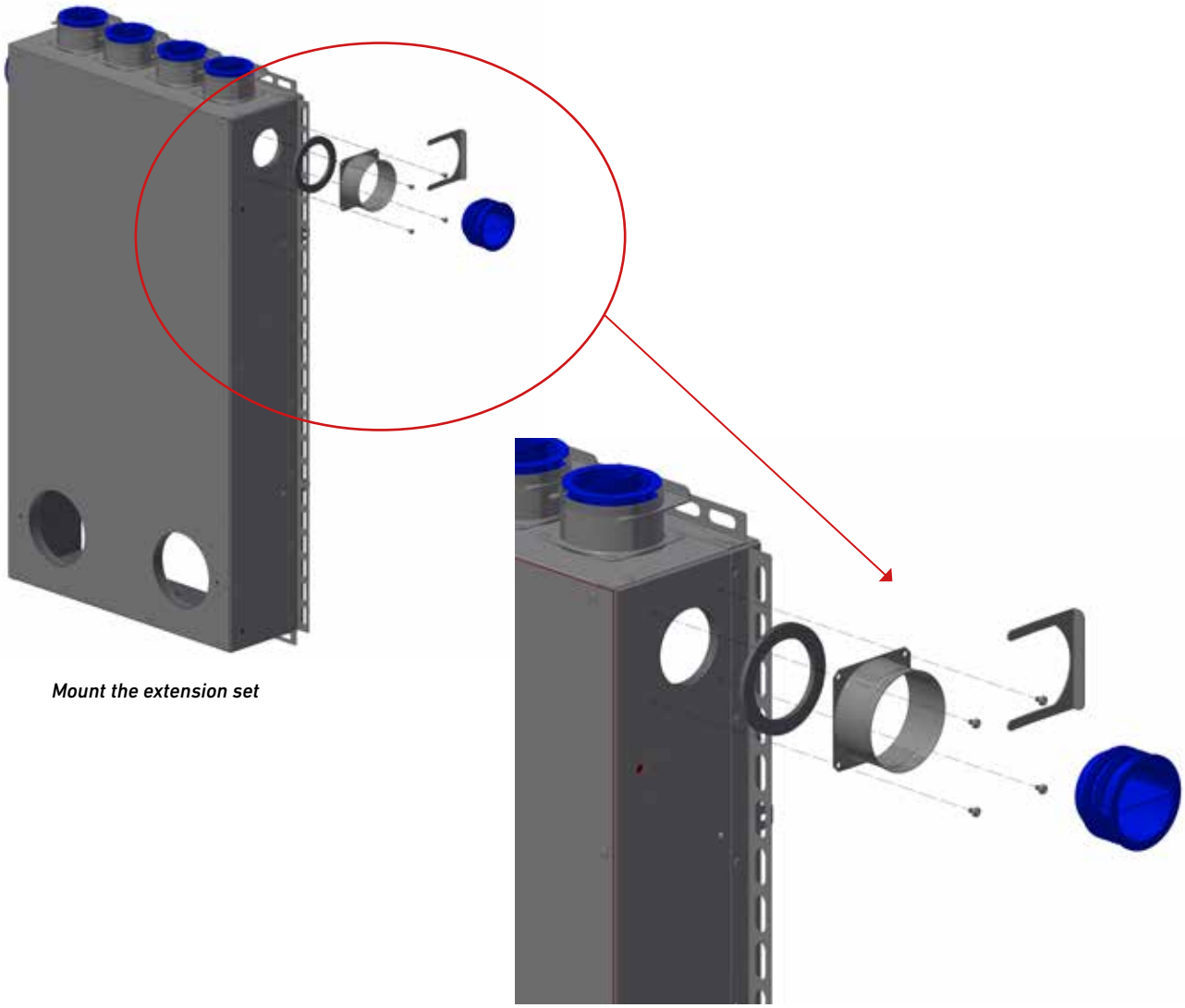


Cut in the insulation *Break out the sheet* *Extensible connection*



Detailed view

In order to ensure that the connections are tight, mount the self-adhesive insulation ILNH to the flush-mounted housing and screw the connection onto the flush-mounted housing using the rounded head screws M4x6 supplied.



Mount the extension set

Detailed view

In order to protect the housing against soiling, the blue sealing plug is used until the KOMFLEX piping is mounted.

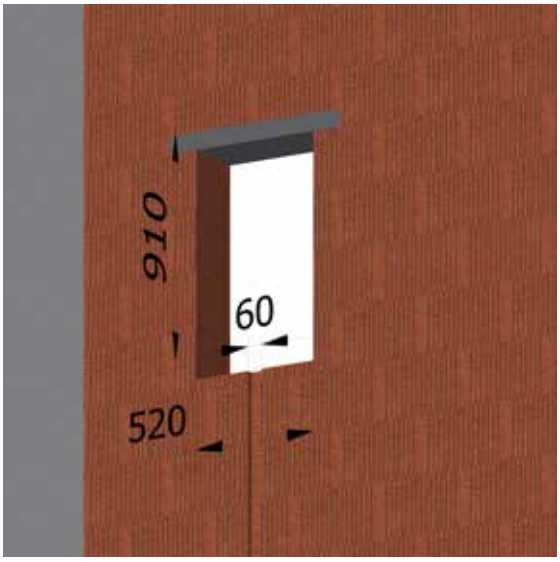
Extension set for multi-room applications (article number: 08LG100UPESETA) consisting of:		
Designation	**Item number**	**Quantity**
Connector	08ASS075ILNH	1 item
Safety clamp	08SK075ILNH	1 item
Screws	40LG030140	4 items
Insulation ILNH	40LG0600038A	1 item
Plastic sealing plug	08EPK6275ILNH	1 item
Sealing ring TPE	08TPEDR6275	1 item

2.2. Structural measures for the installation of the flush-mounted housing

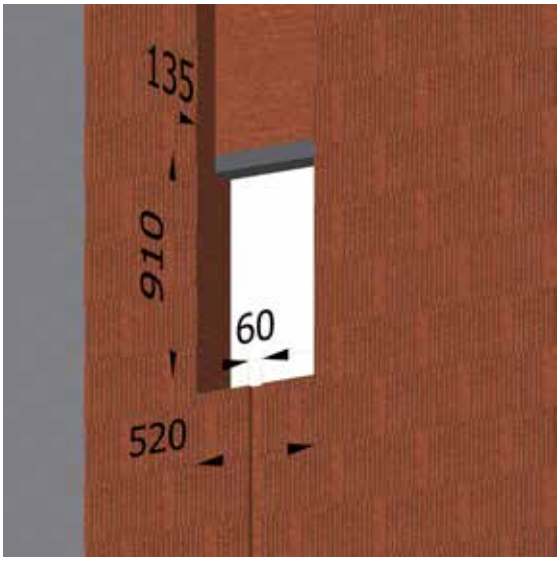
2.2.1. WALL APERTURE / WALL OPENING

The provision of a wall aperture for the flush-mounted housing should already be taken into consideration during the shell construction phase. In this respect it is important to commission an architect or specialist planner with the provision of the wall aperture in a suitable place.

If a wall aperture is provided subsequently: There is a risk of damaging supply lines (e.g. power, gas, water or the like) or affecting the statics of the building.



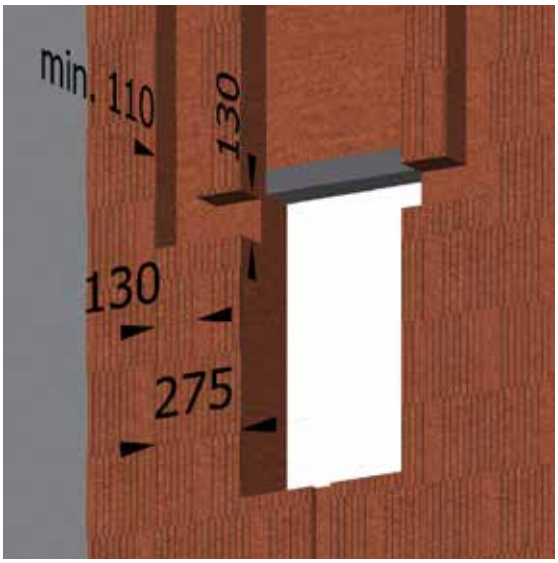
Single-room application



Multi-room application

For the electrical installation, a corresponding wall groove (60 mm) has to be milled out to lay the installation pipe(s) (recommended diameter: 16 mm). The wall groove must be positioned in the centre of the wall aperture.

If the optional lateral connections are used, the area for the additional air ducts is also to be chiselled out.



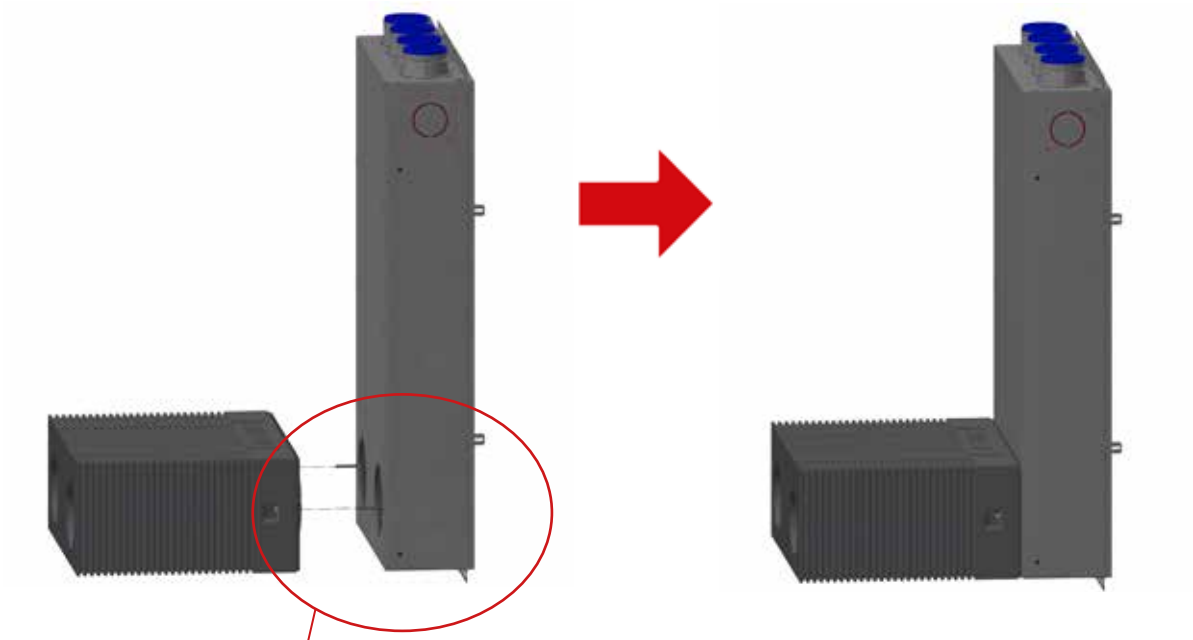
Multi-room application with lateral connections

2.3. Final assembly steps of the flush-mounted housing

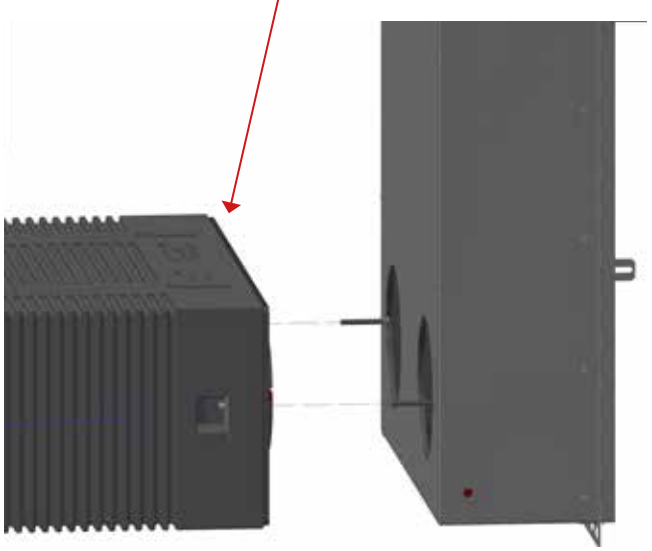
2.3.1. INSTALLATION OF THE WALL DUCT ON THE FLUSH-MOUNTED HOUSING

Before the flush-mounted housing is placed into the wall aperture, the wall duct must be screwed together with the flush-mounted housing using the hexagon head screws M5x60 supplied.

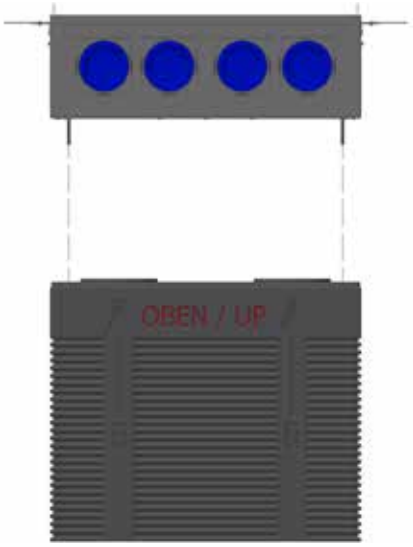
The air routing in the wall duct is provided with a slope towards the outside so as to prevent moisture penetration from the outside.



Mount wall duct on the flush-mounted housing



Detailed view



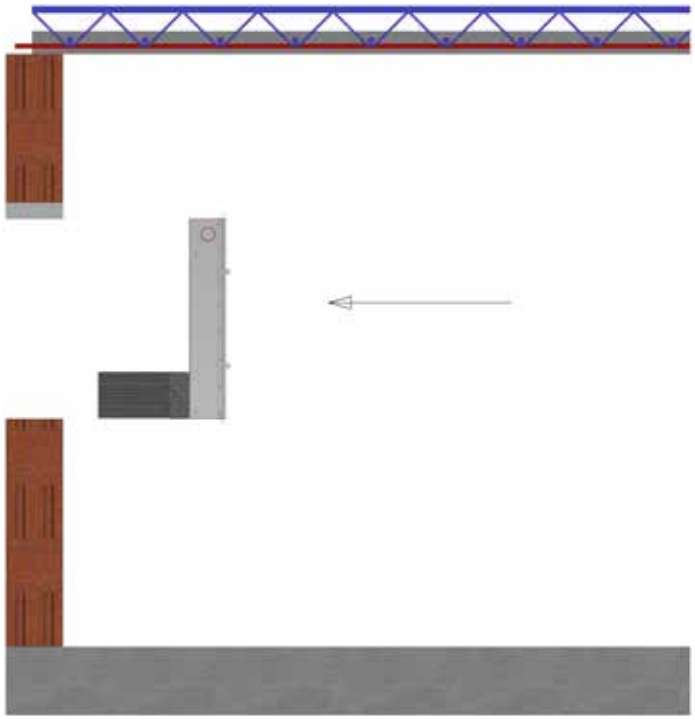
View from above

When mounting the wall duct, the TOP/BOTTOM labelling must be absolutely observed!

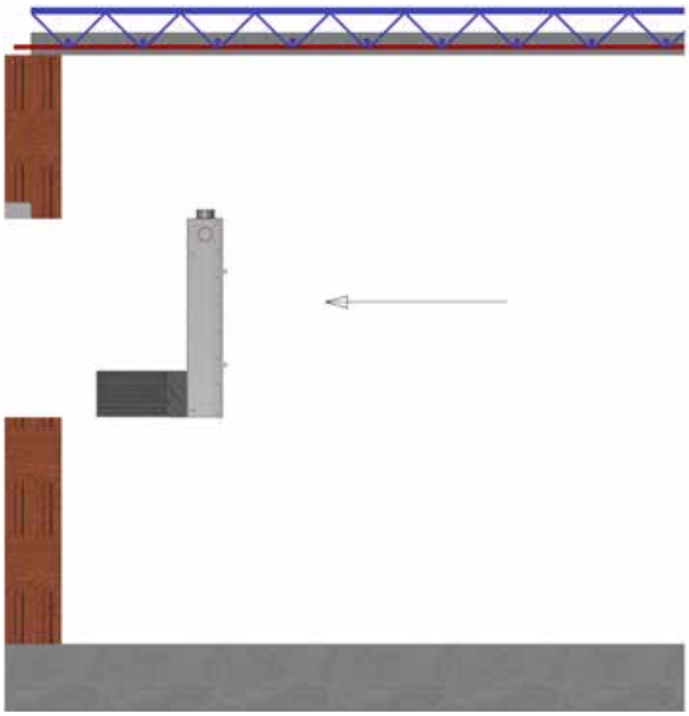
3. Interior work

3.1. Inserting the flush-mounted housing into the wall aperture

The flush-mounted housing is fit into the wall aperture together with the wall duct.



Single-room application



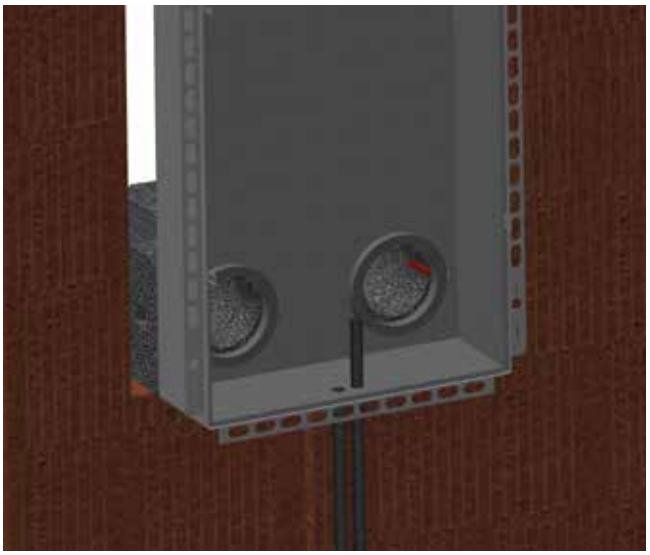
Multi-room application

3.2. Inserting the installation tube

Depending on the requirements, one or two installation tubes (diameter 16 mm), are inserted into the wall groove.

The devices as well as a possible BMS connection are fed via the first installation tube which is led to the fuse box.

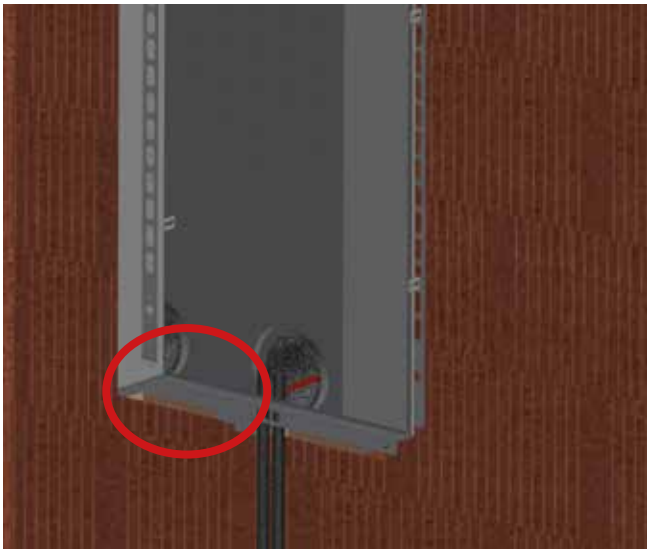
Operation with a control unit requires a second installation tube that is led directly to the control unit.



Mounting of the installation tube

3.3. Fitting the flush-mounted housing into the wall aperture

The flush-mounted housing must be aligned horizontally and vertically by means of shims, e.g. wedges (on site).



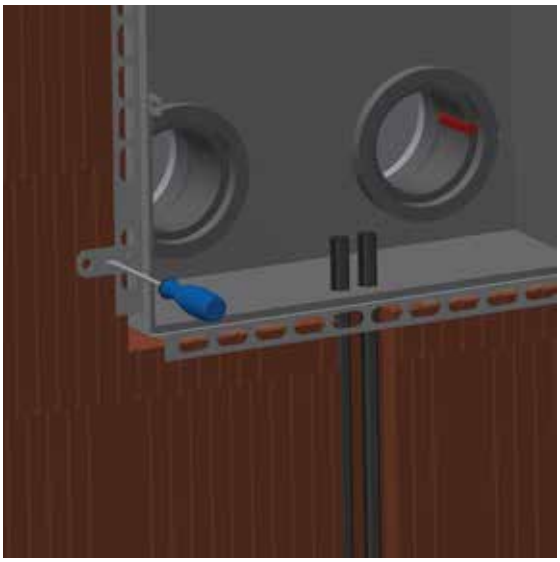
Insertion of shims (e.g. wedges)

Ensure that the circumferential bracket is flush with the masonry.

3.4. Fixing the flush-mounted housing in the wall aperture

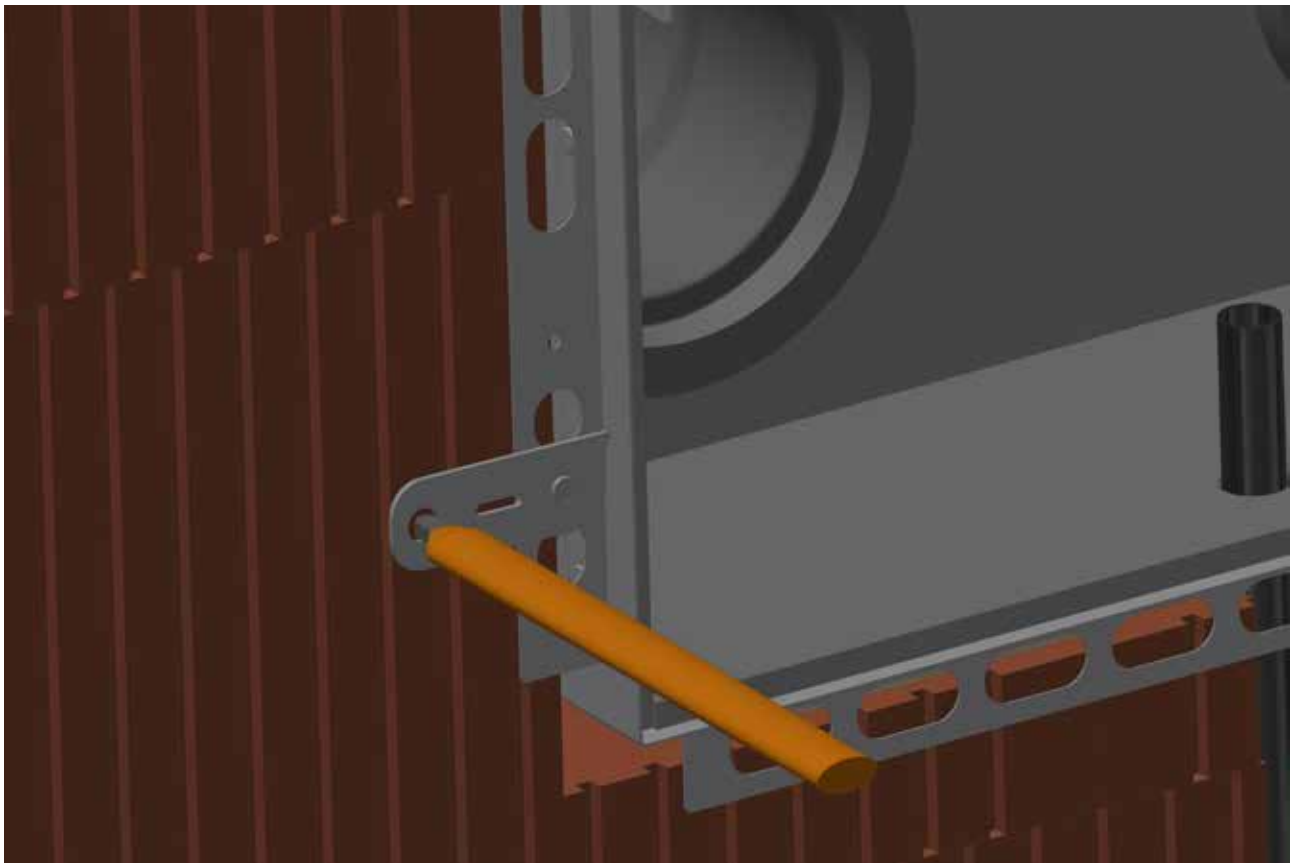
The flush-mounted housing is provided with four mounting straps by means of which it can be fastened to the masonry.

Insert the screwdriver into the mounting strap



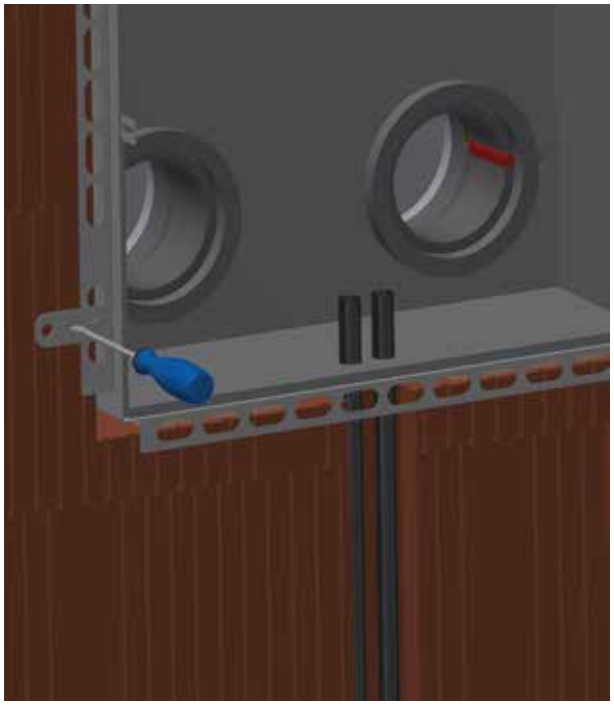
Turn mounting strap outwards

Use a screwdriver for flat-headed screws to turn the mounting strap outwards in order to mark the drill hole.

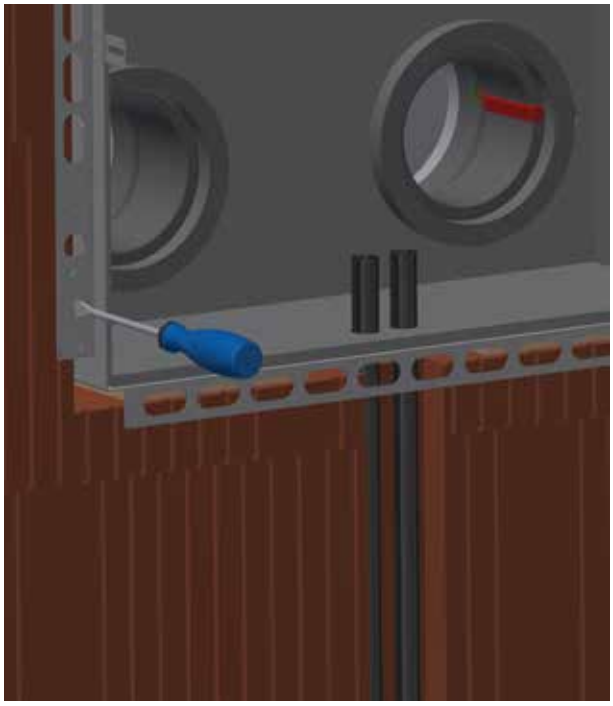


Marking the drill holes

Turn the mounting strap back again using the screwdriver for flat-headed screws.

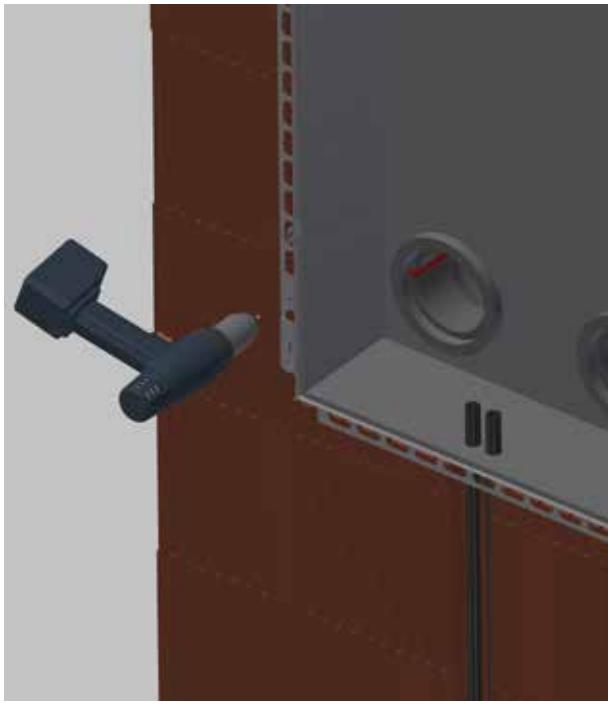


Insert the screwdriver into the mounting strap

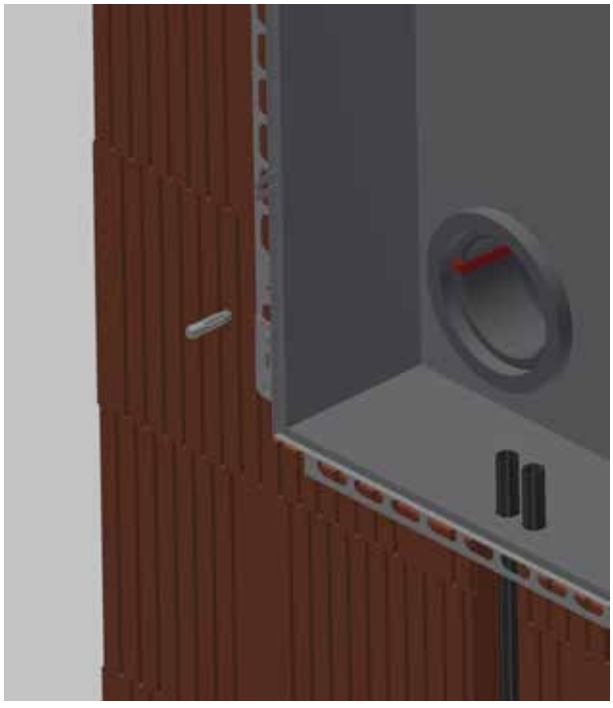


Turn the mounting strap back

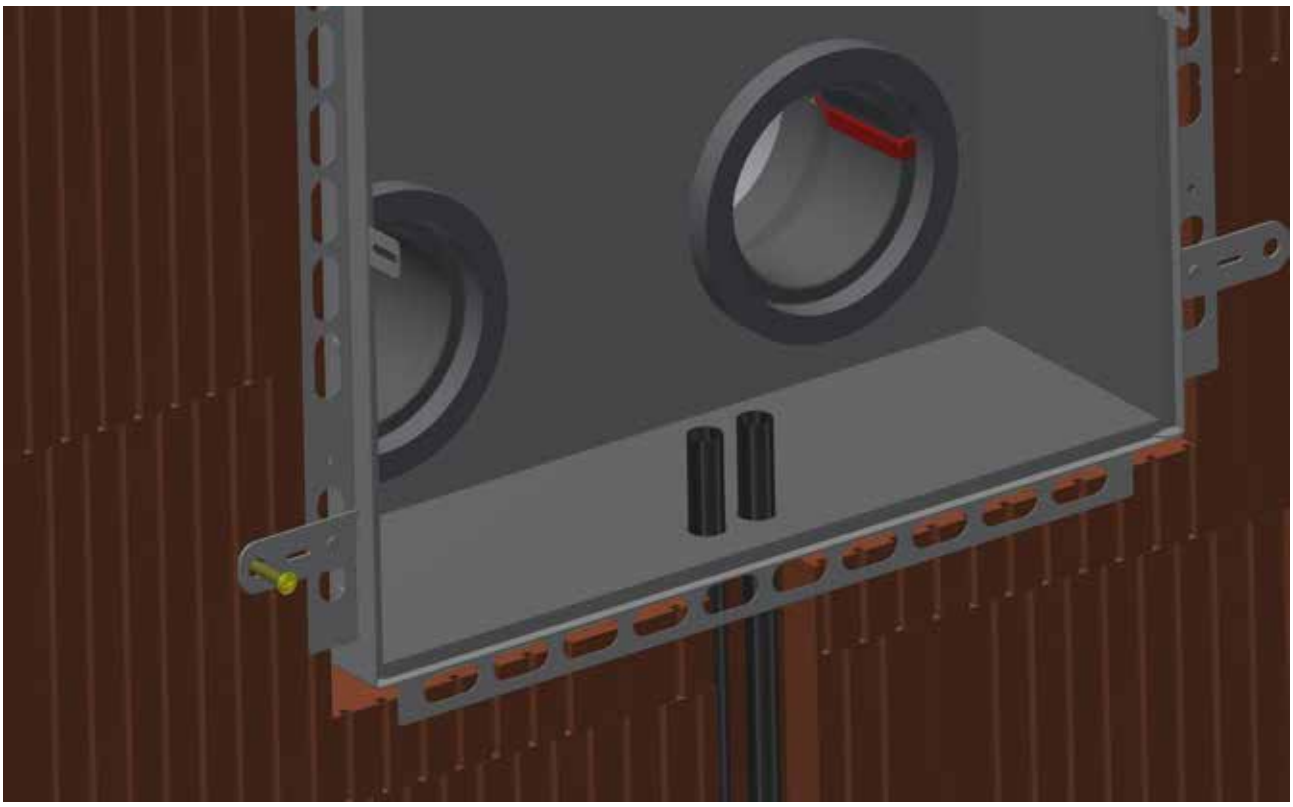
Afterwards the flush-mounted housing is fastened on the masonry by means of the four mounting straps and a suitable screw fitting.



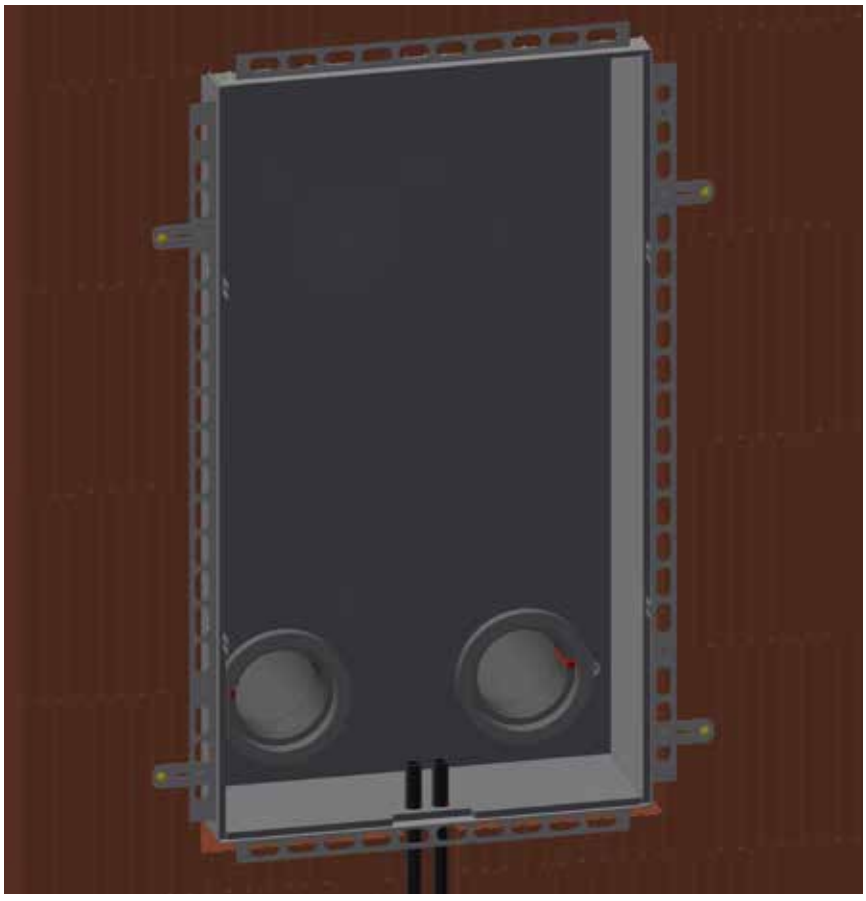
Drill holes



Insert dowels



Turn mounting straps towards the outside and fasten with screws

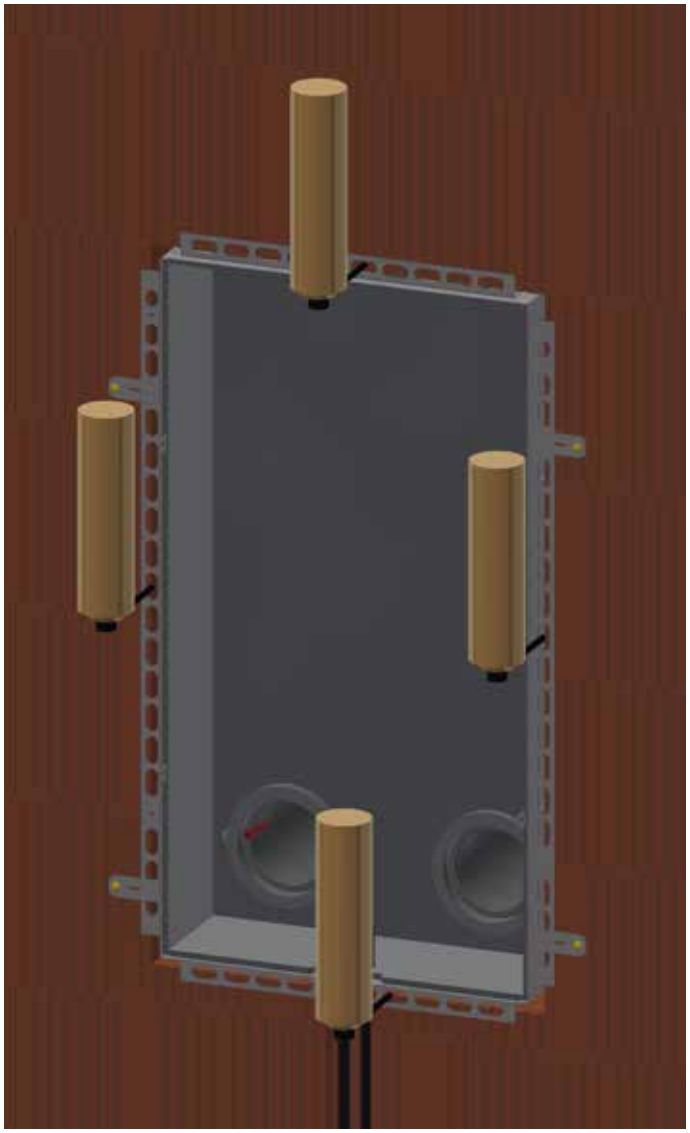


Installed flush-mounted housing

3.5. Laying the flush-mounted housing in foam

3.5.1. SINGLE-ROOM APPLICATION

When you have aligned and fastened the flush-mounted housing successfully, the space is filled all around with polyurethane foam.



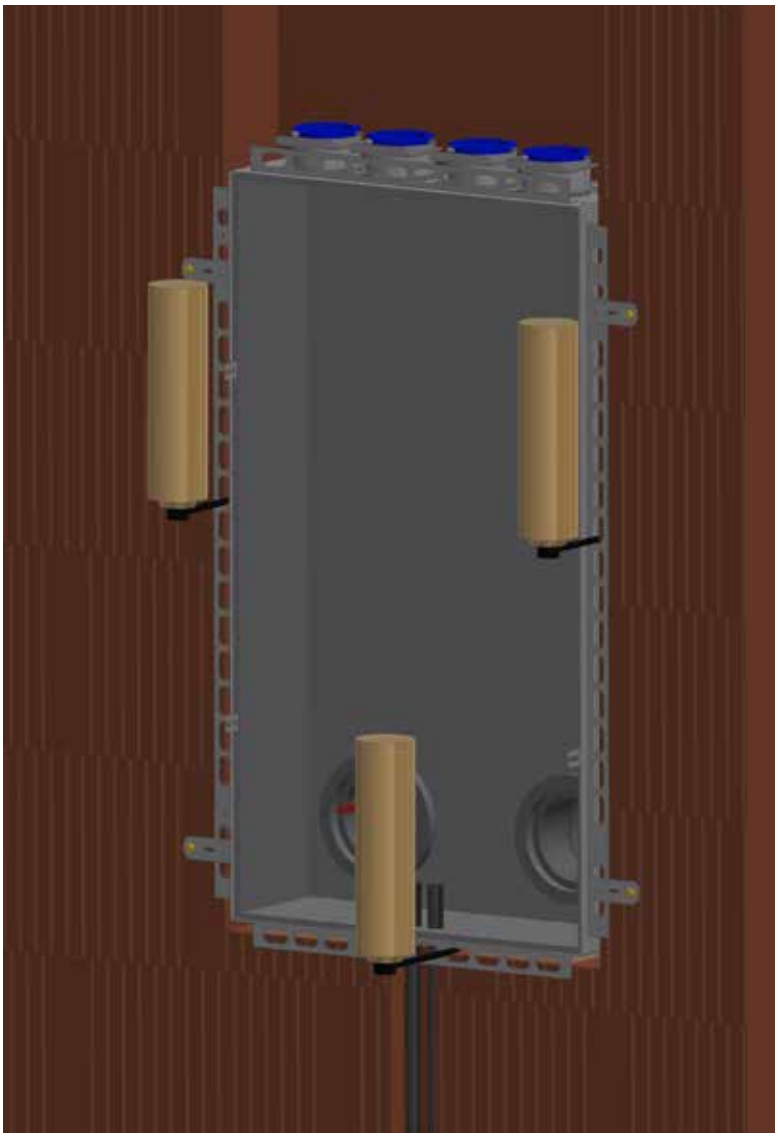
Laying the gaps in foam

Ensure that the flush-mounted housing is not mechanically deformed while the polyurethane foam is curing!

Final sealing of the foamed-out cavity has to be carried out using window sealing tape!

3.5.2. MULTI-ROOM APPLICATION

When the flush-mounted housing has been aligned and fixed successfully, fill out the cavities at the sides and the bottom with polyurethane foam.



Laying the gaps in foam

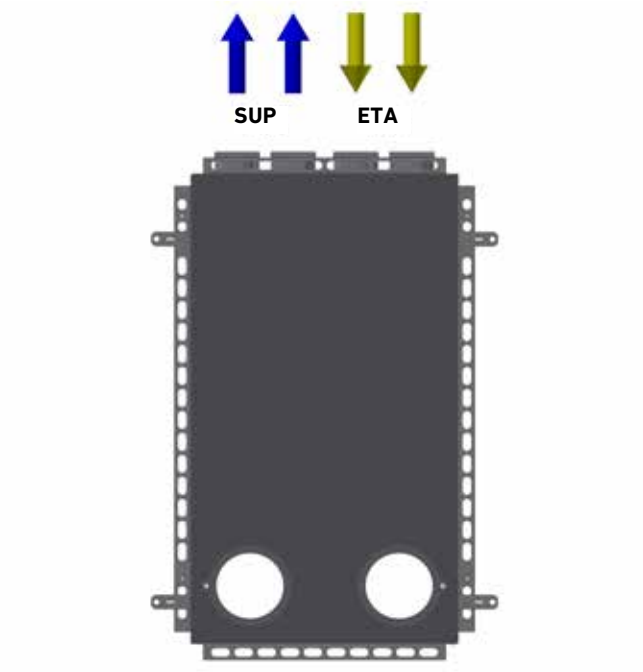
Ensure that the flush-mounted housing is not mechanically deformed while the polyurethane foam is curing!

Final sealing of the foamed-out cavity has to be carried out using window sealing tape!

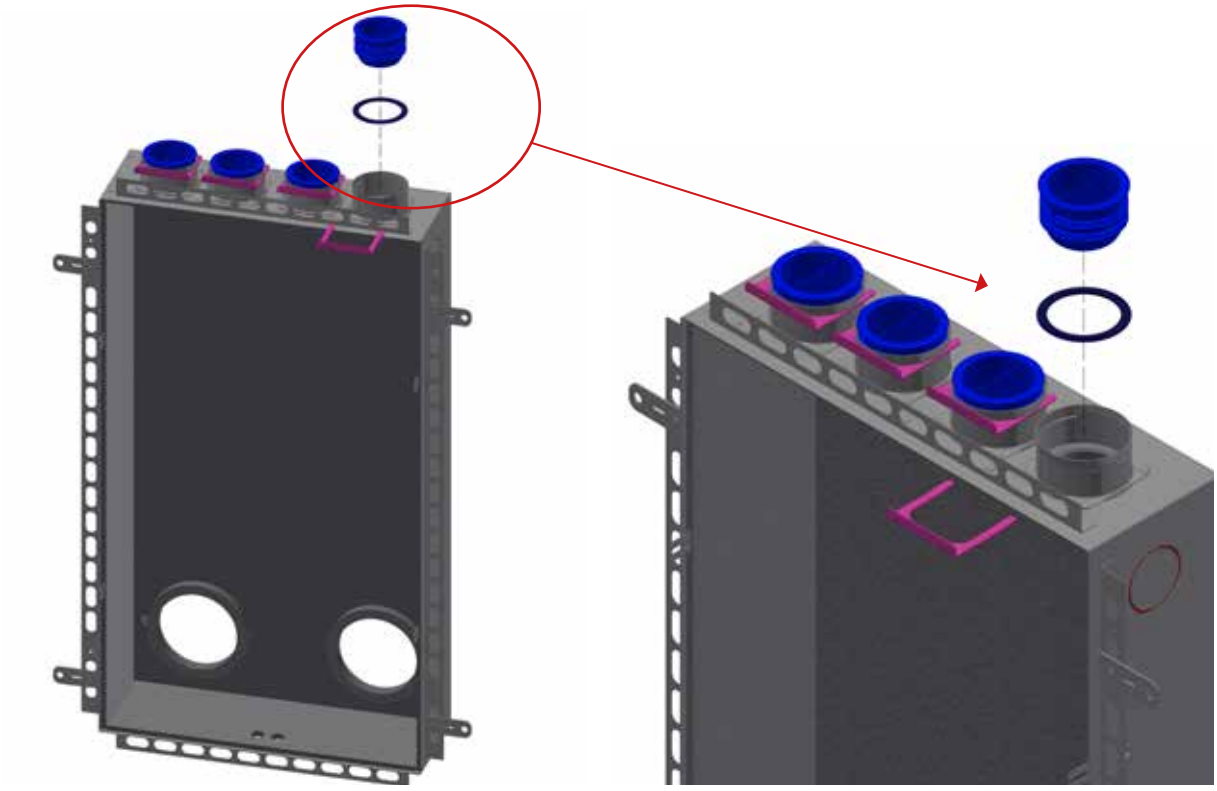
3.6. Air duct connection work

3.6.1. MULTI-ROOM APPLICATION

For the multi-room connection version, remove the blue plastic sealing plugs and fit the KOMFLEX tubes as required. To remove the sealing plug, pull out the safety clamp towards the front.



Connection options

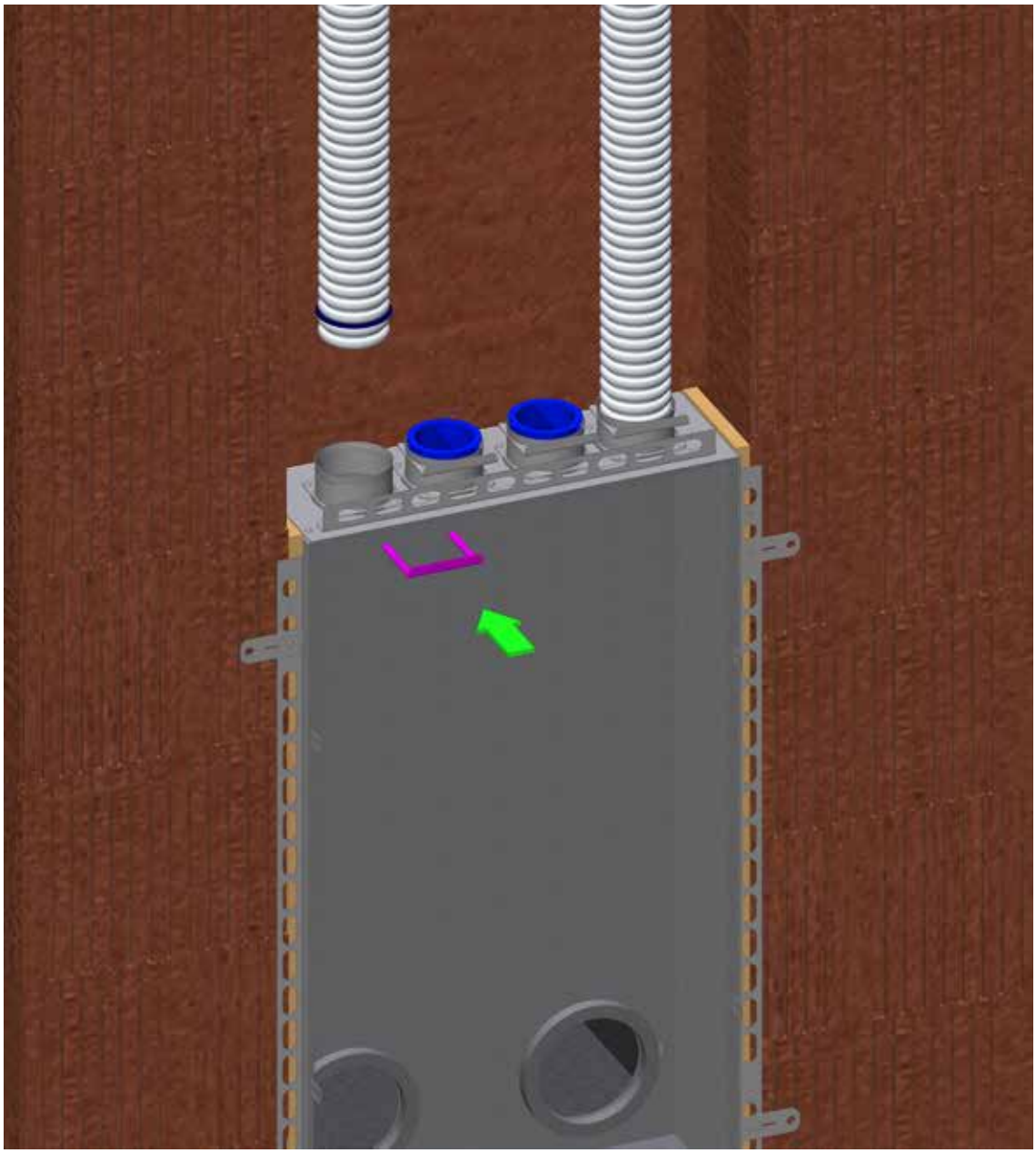


Remove sealing plugs

Detailed view

Only when carrying out the pipe installation with the KOMFLEX tube, remove the sealing plugs that are required.

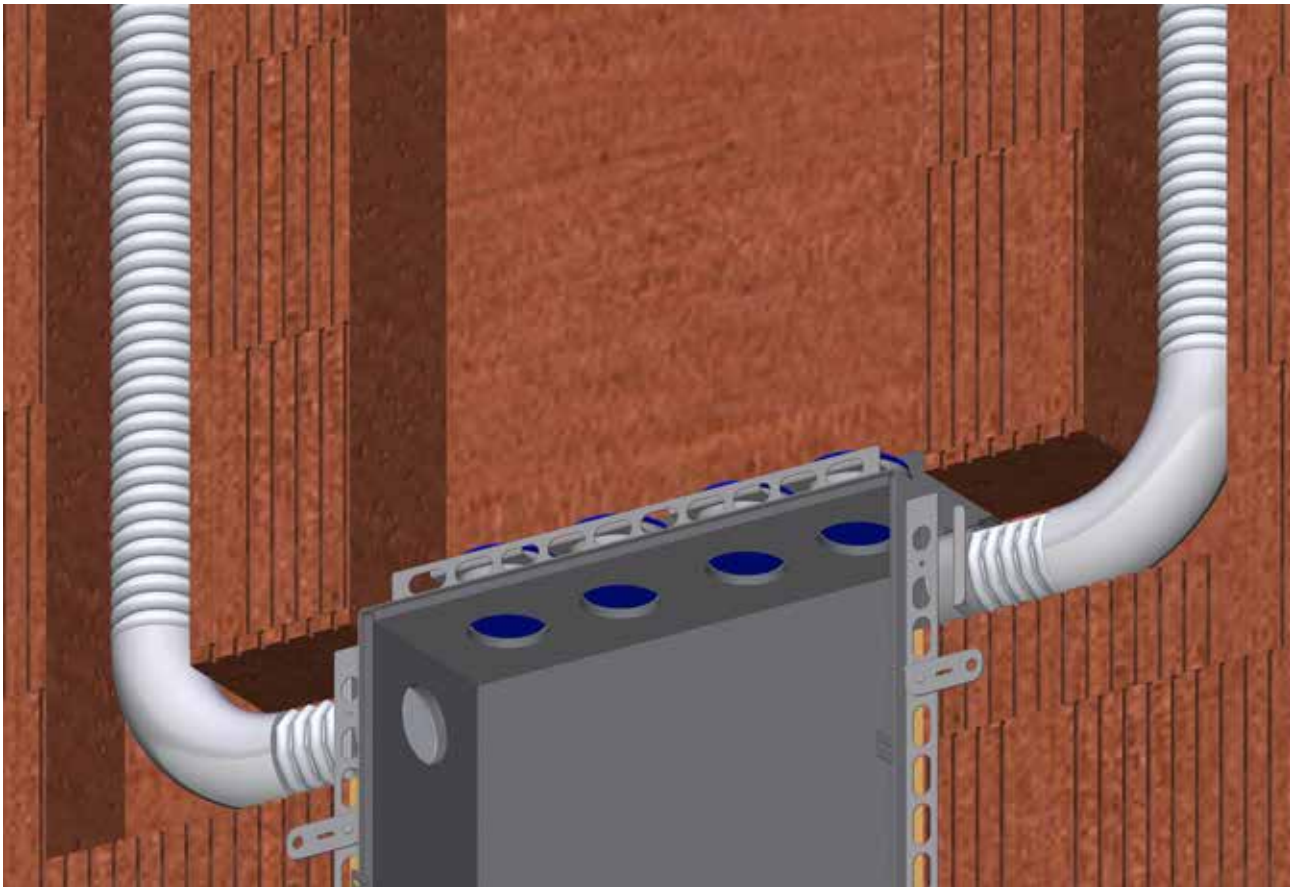
After inserting the KOMFLEX tube, it is fixed using a safety clamp.



Installation of the KOMFLEX tube

Make absolutely sure that the KOMFLEX tube is provided with a seal ring. If no seal rings are available (optional accessories package containing 50 pcs.), they can be taken off from the sealing plugs. In order to ensure air tightness, the seal ring is inserted into the next to last groove of the KOMFLEX tube (in any case it must be positioned below the safety clamp).

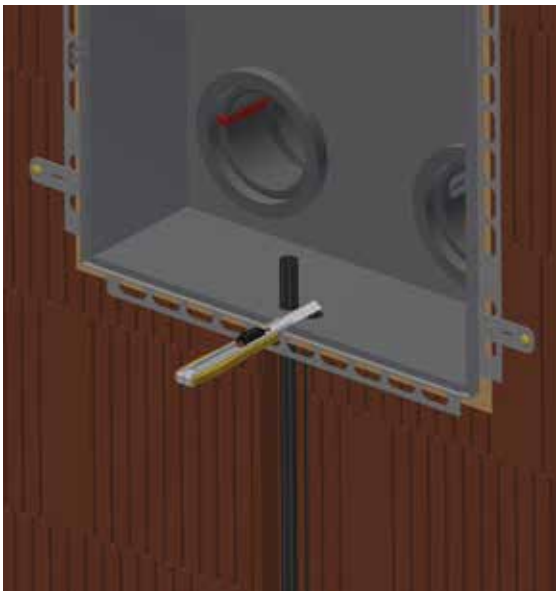
To make the installation of the KOMFLEX tube easier, you can wet the seal.



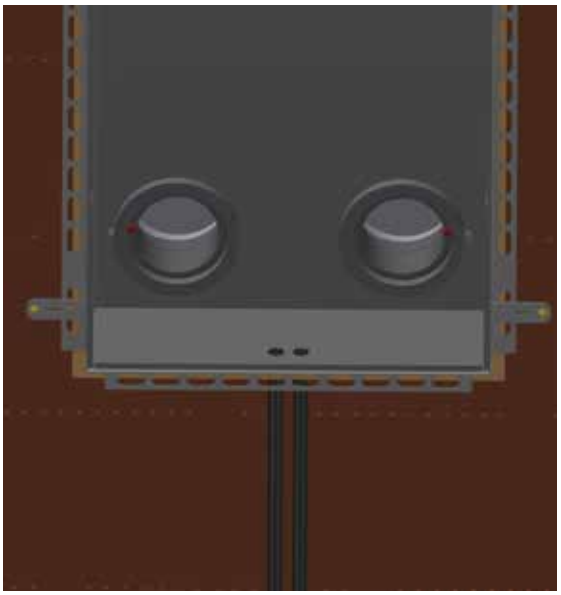
View with lateral connections

3.7. Trimming the installation tube

After the polyurethane foam has cured, trim the installation tube inside so that it is flush with the flush-mounted housing.



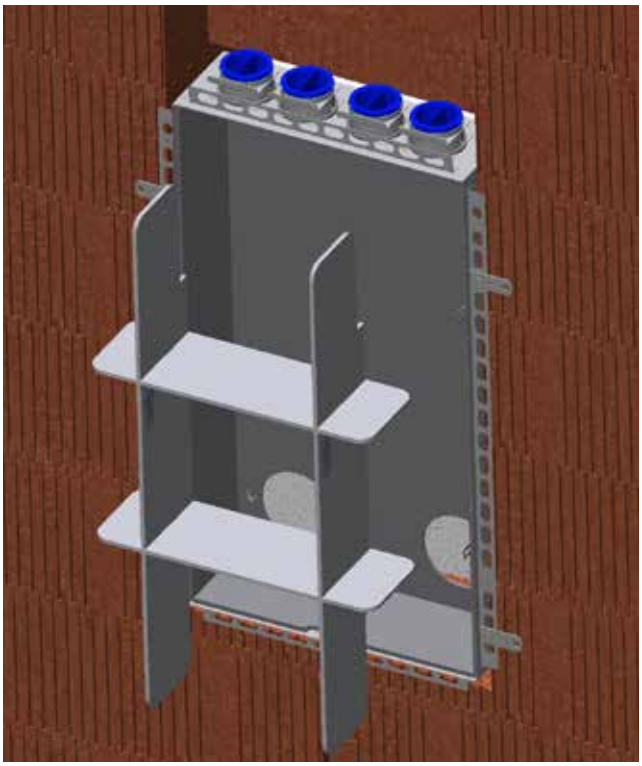
Trimming the installation tube

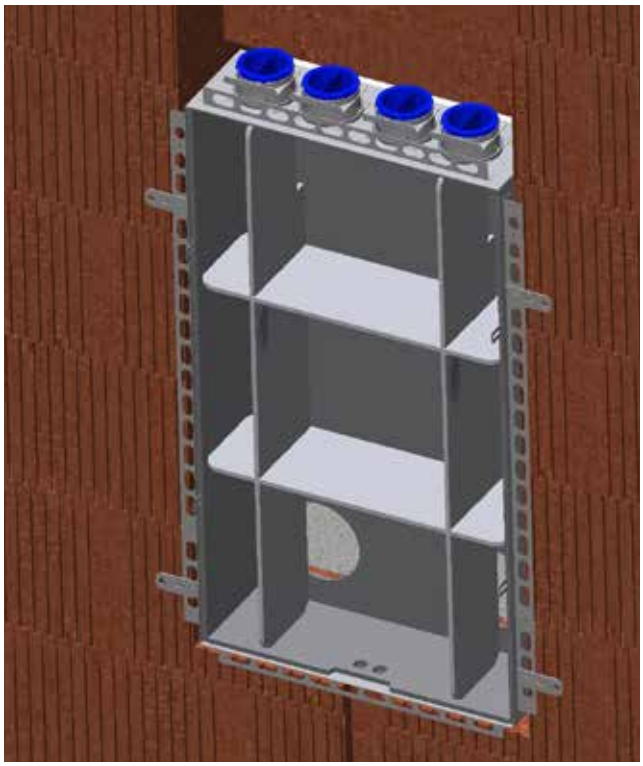


Installation tube trimmed flush with the flush-mounted housing

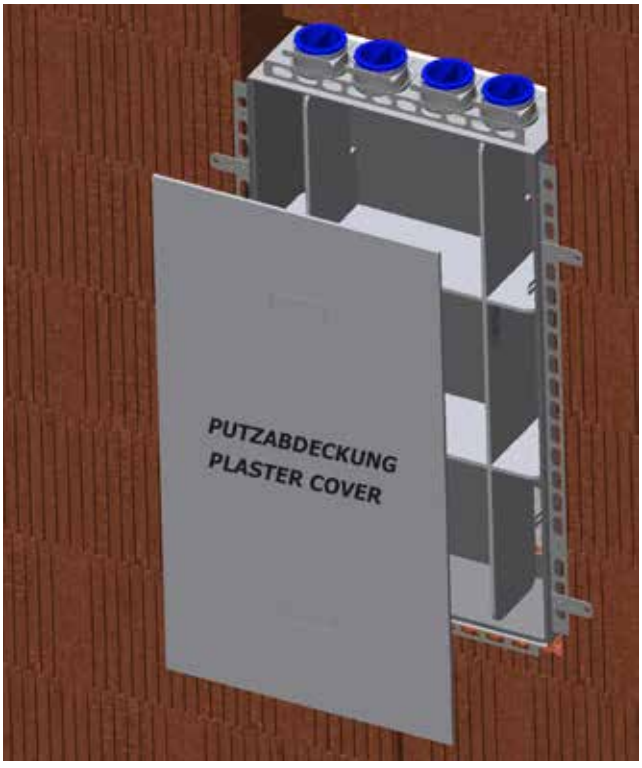
3.8. Fitting the plaster cover

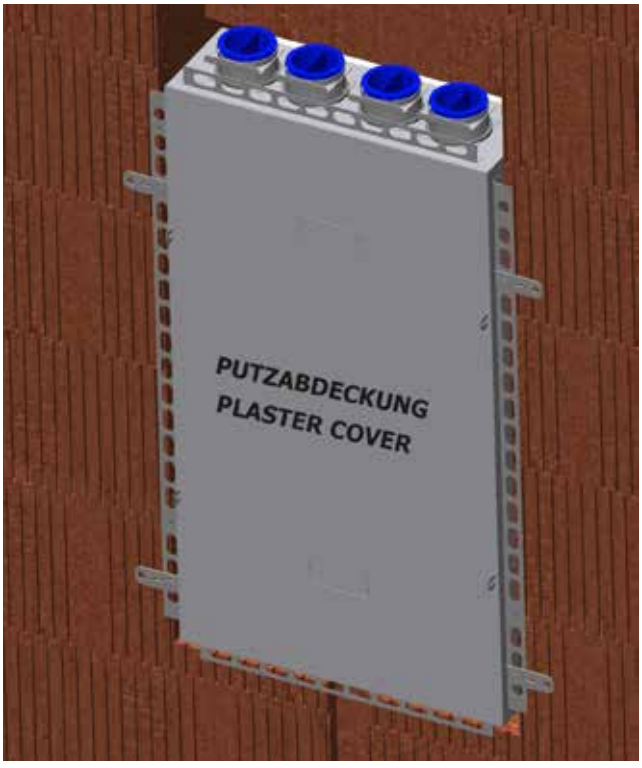
In order to keep the housing interior free from dust and dirt during the further construction work, seal the housing using a plaster cover (included in the scope of supply).





Insert plaster cover crosspiece in 2 steps





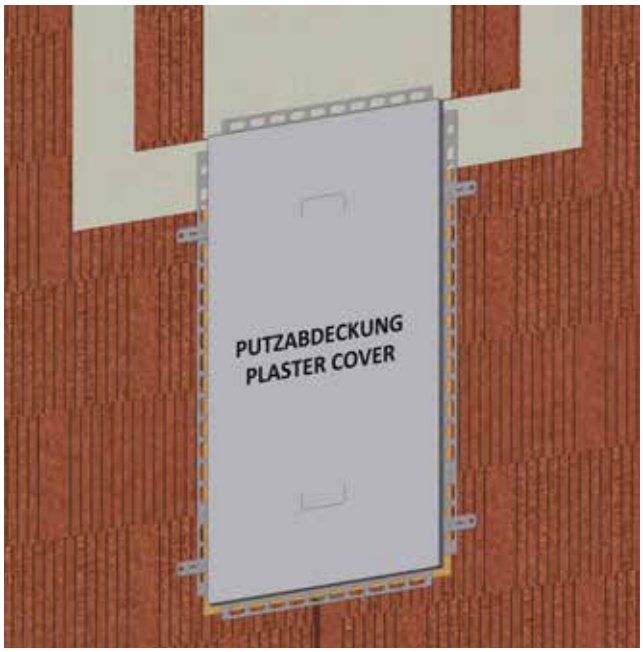
Close dirt cover

Mounted dirt cover

3.9. Sealing the cavities in the case of multi-room applications

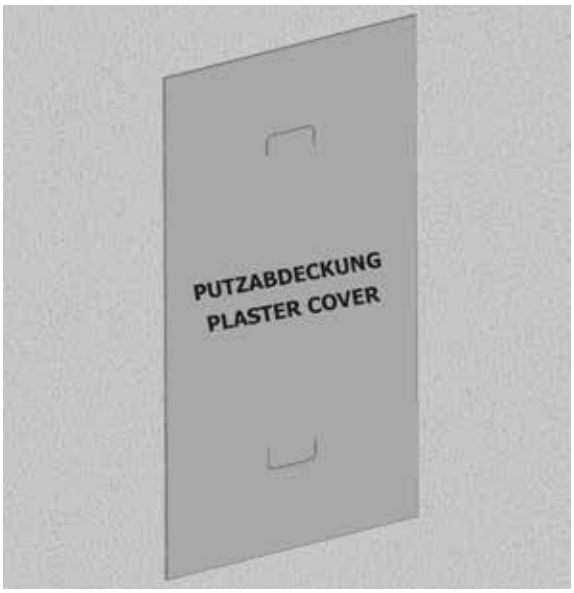
To seal the cavities behind and between the KOMFLEX connectors, fill them out accurately with polyurethane foam. Then seal the remaining cavity between the KOMFLEX connectors and the ceiling, for instance by using masonry mortar.

Closing cavities using masonry mortar - top connections



Closing cavities using masonry mortar - side connections

3.10. Interior plaster



Plaster cover fitted

The interior plaster must be applied flush up to the plaster edge and is closed flush with the plaster cover.

The dirt cover must be fitted while the interior plastering work is carried out!
In a last step, the dirt cover must be removed.

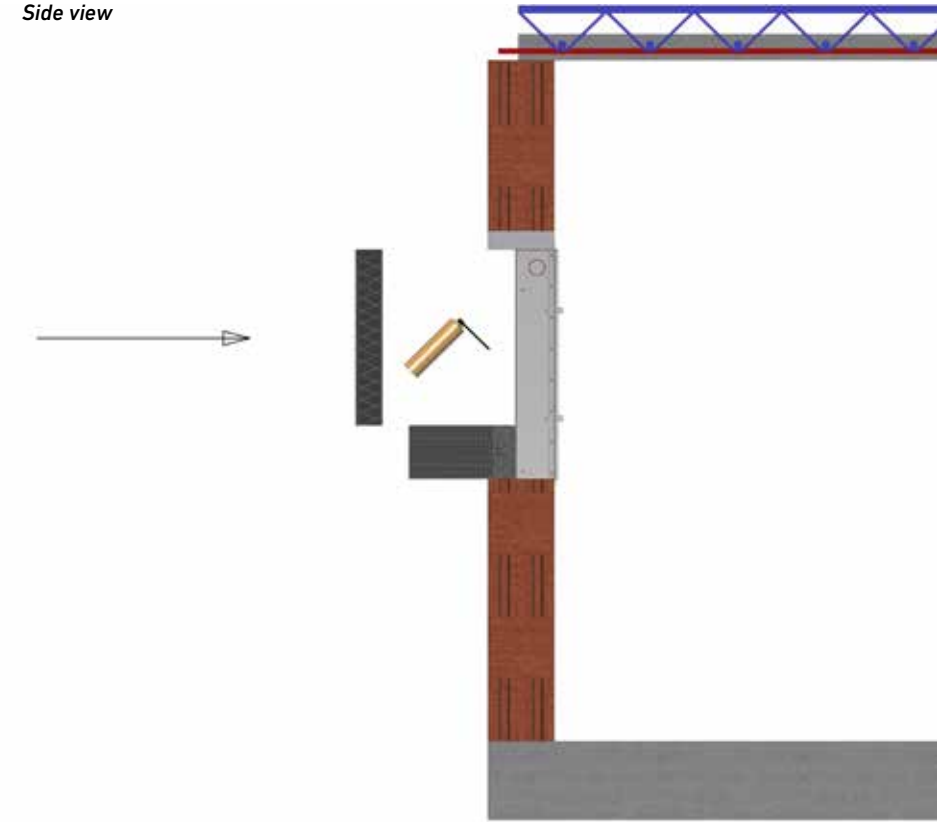
4. Exterior work

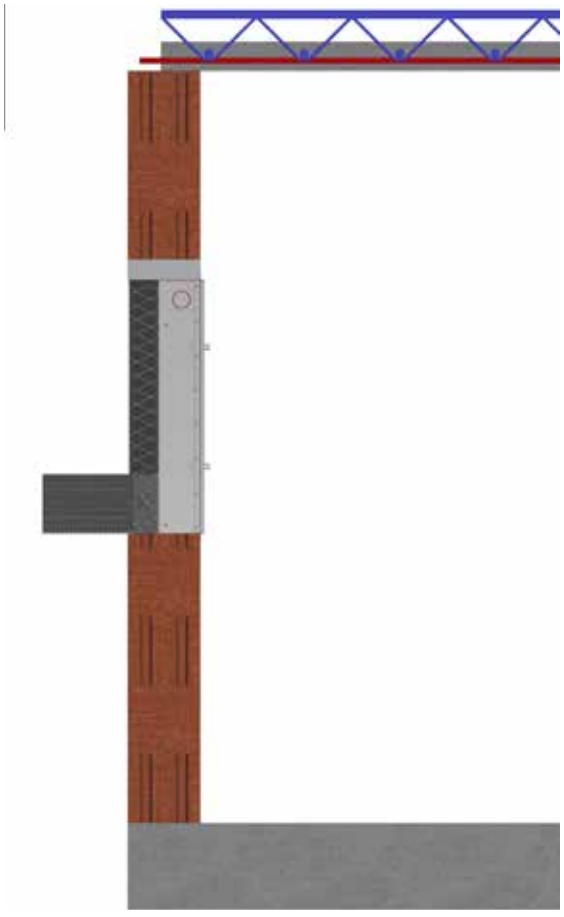
4.1. Fitting the compensating insulation

Glue on compensating insulation with ETICS adhesive foam

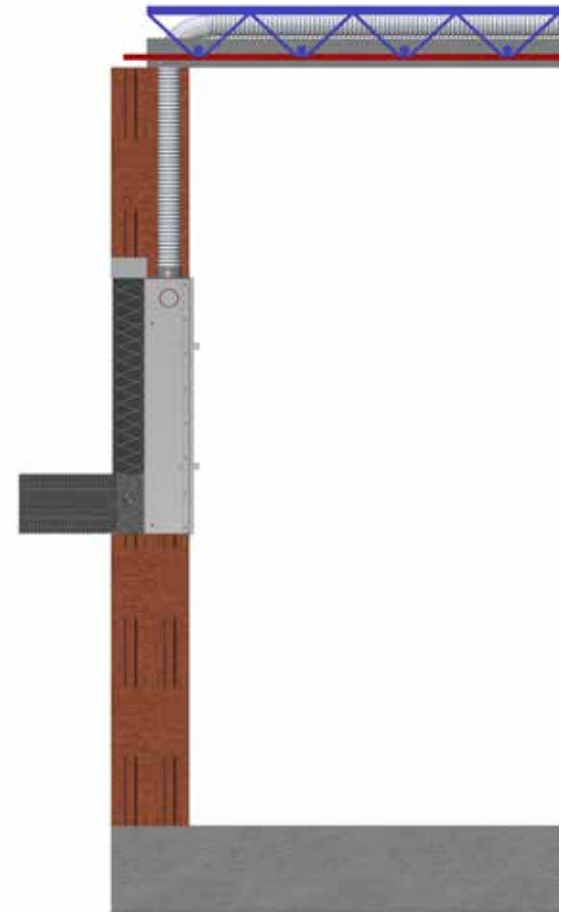
The area behind the flush-mounted housing must be closed by means of an ETICS compensating insulation. This insulation is fitted to the flush-mounted housing using ETICS adhesive foam (on site). The compensating insulation is flush with a tile thickness of 250 mm.

Side view



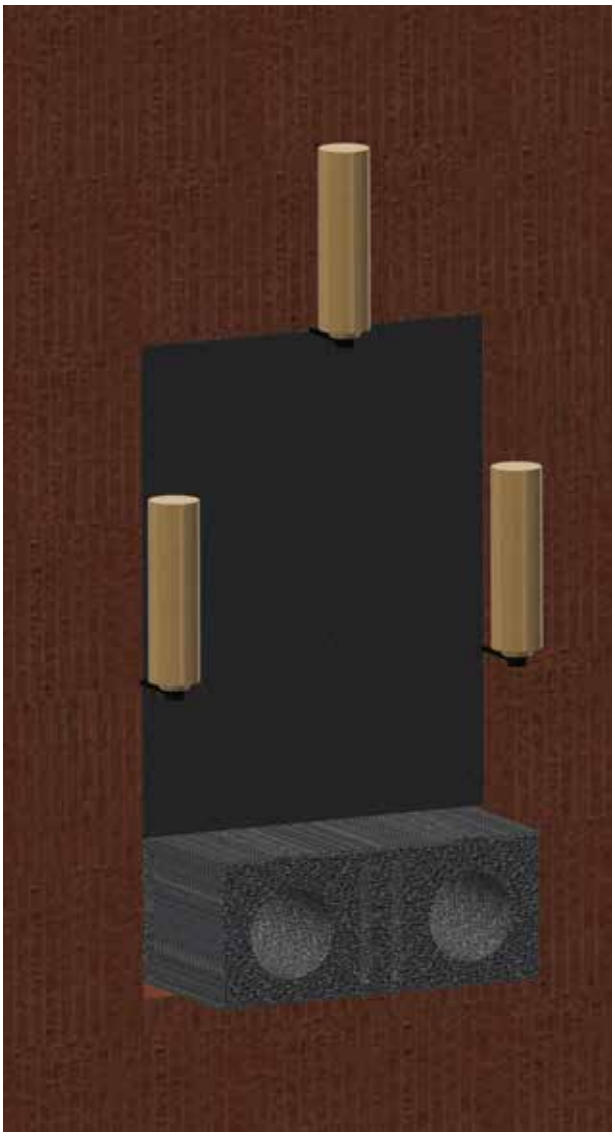


Single-room application



Multi-room application

The circumferential gap between the ETICS compensating insulation and the masonry as well as the gap between the wall duct and the masonry must be filled out professionally all round using polyurethane foam.

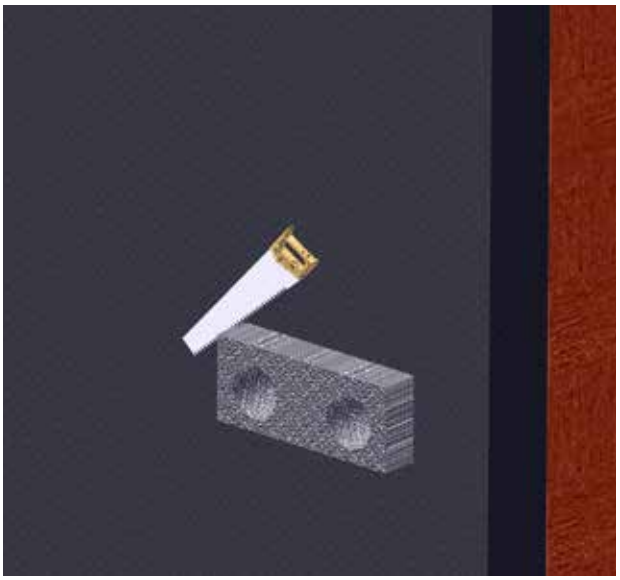


Filling in polyurethane foam

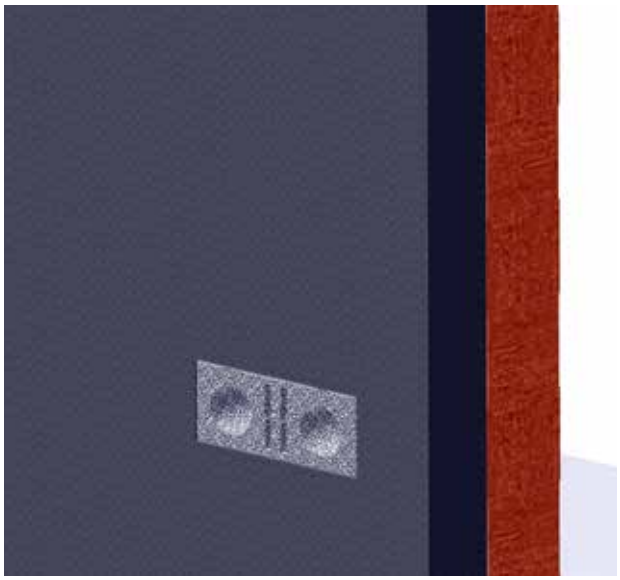
4.2. Facade edge variant

4.2.1. CUTTING THE WALL DUCT TO LENGTH

When the facade insulation has been fitted on the masonry, the wall duct must be shortened so that it is flush with the facade insulation. Then the exterior plaster can be applied.



Shortening the wall duct



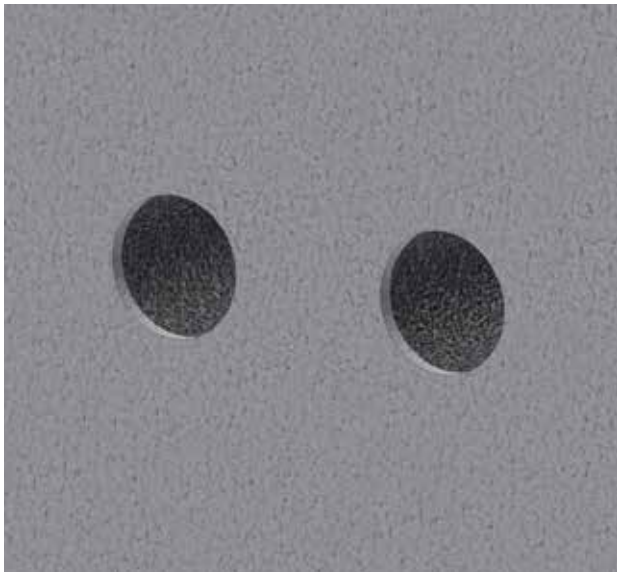
Wall duct flush with facade insulation

4.2.2. DESIGN OF THE WEATHER PROTECTION GRILLE

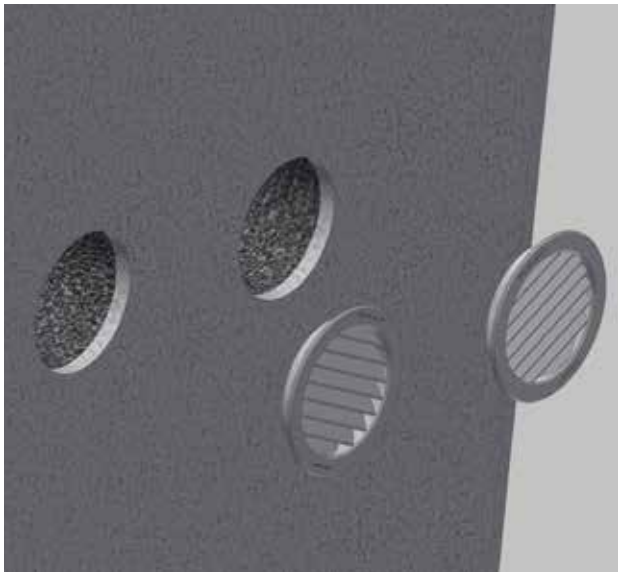
Depending on the type, the plastic grilles are fitted from the inside (plastic grille NW170 folding) or from the outside (plastic grille NW155) after having applied the facade plaster.

We recommend fitting the plastic grilles by slightly twisting them, in order to prevent an air short-circuit: the outdoor air grille in clockwise direction, and the exhaust air grille in counter-clockwise direction.

4.2.2.1. INSTALLATION FROM THE OUTSIDE



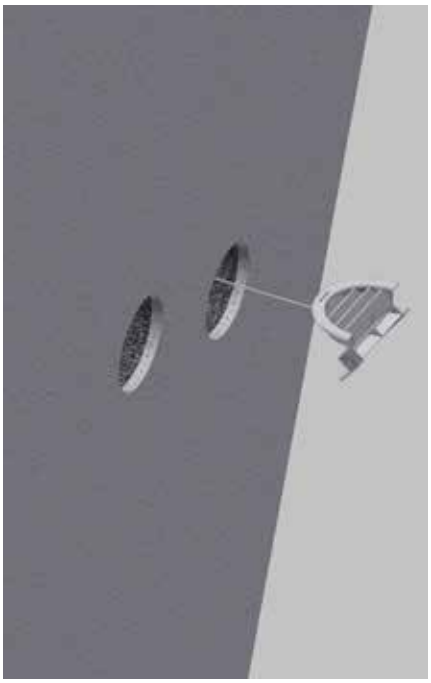
Exterior wall apertures



Fit plastic grille NW155 from the outside in a slightly twisted fashion

4.2.2.2. INSTALLATION FROM THE INSIDE

Leading the plastic grille NW170 through the aperture

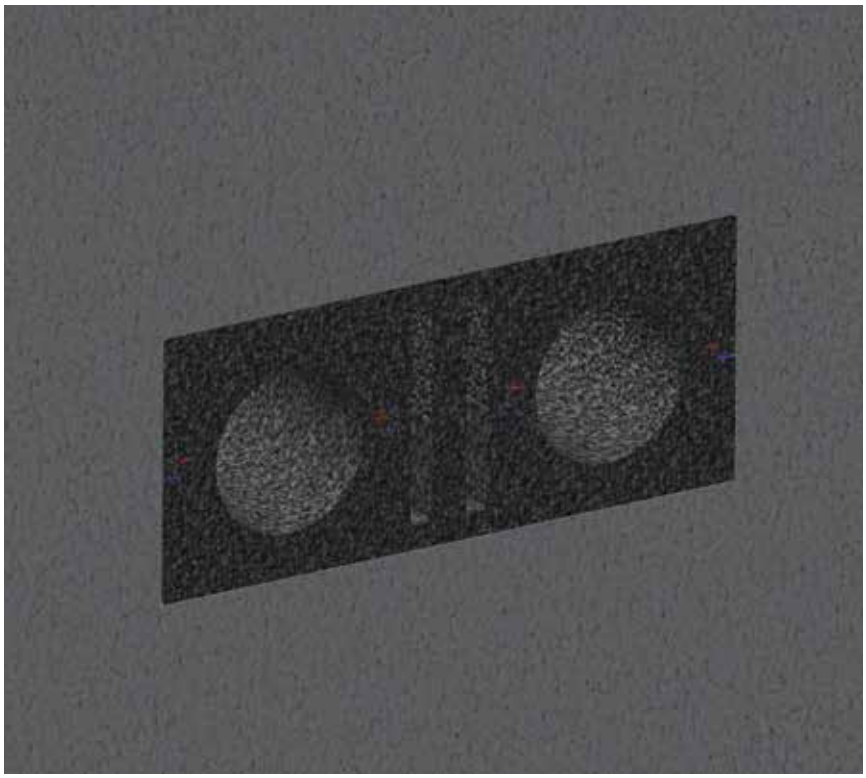


Unfold and pull back grille

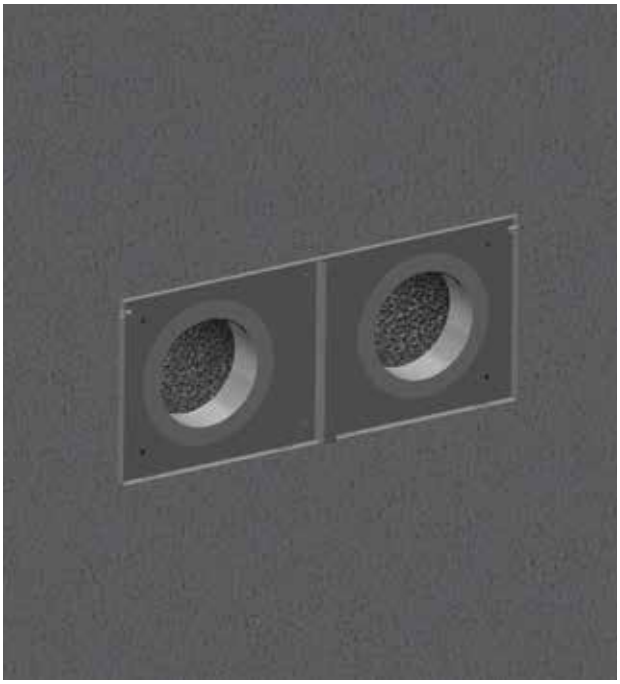
Fix grille and place safety lanyard into the flush-mounted housing

4.2.3. DESIGN OF THE EXTERIOR WALL ELEMENT

For the design of the exterior wall element, the exterior plaster is applied and the mounting plate is inserted into the wall duct. The mounting plate serves as a template for the fixing holes.



Plaster exterior wall

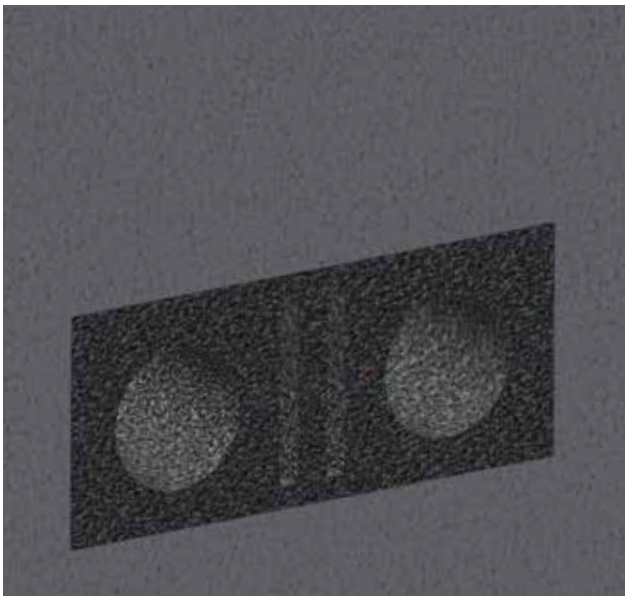


Insert mounting plate

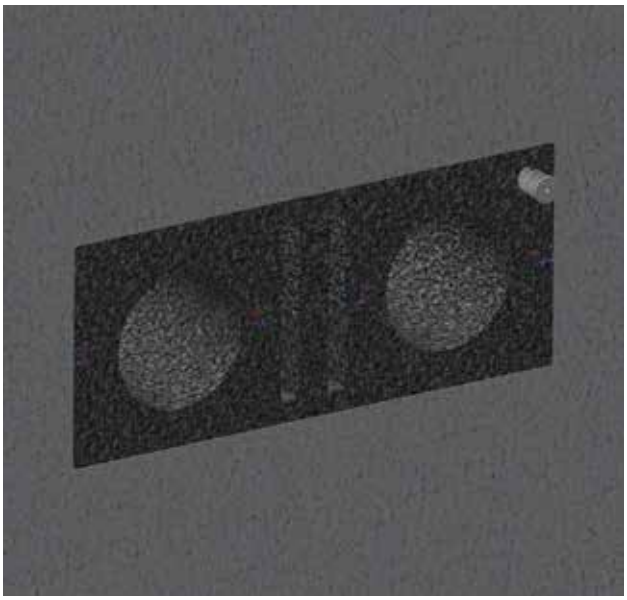
Use a 6 mm drill to pre-drill the EPP wall duct

When you have drilled the holes, remove the mounting plate and insert the insulation dowels supplied.

Protect the apertures of the EPP wall duct against impurities until you install the weather protection grille.



Remove mounting plate



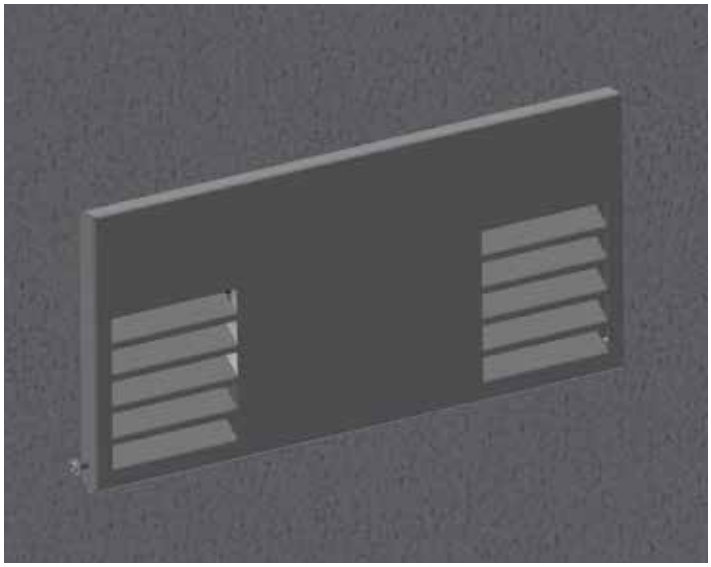
Screw in insulation dowels FID50

Then the mounting plate is re-installed and fixed using the four screws supplied.
The weather protection grille is mounted and fastened at the sides.

Ensure that the mounting plate is aligned correctly (slots at the top, rivet nuts at the bottom).

Insert and screw on mounting plate

Mount weather protection grille



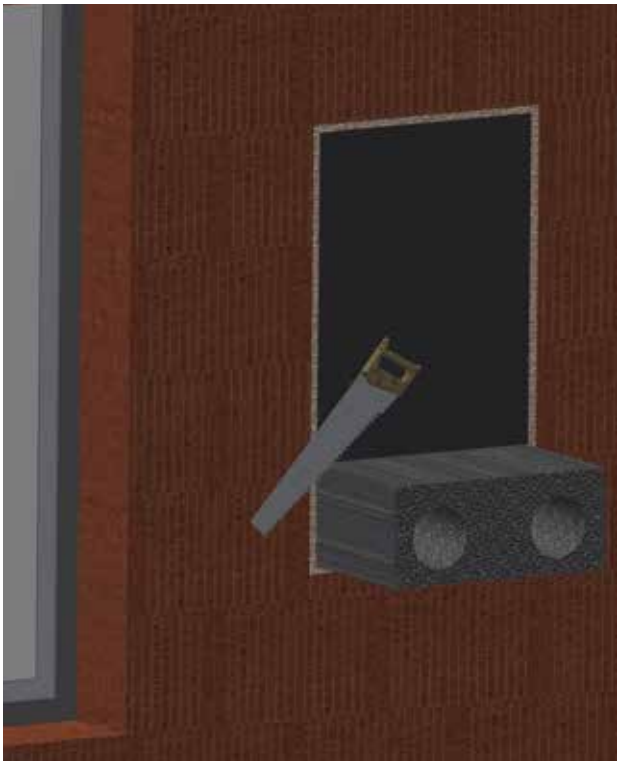
Screw on weather protection grille at the sides

4.3. Reveal variant

Generally the following applies: the unit for the reveal variant should be fitted in close proximity to the window.

4.3.1. CUTTING THE WALL DUCT TO LENGTH

When the compensating insulation has been fitted on the flush-mounted housing, the wall duct must be shortened so that it is flush with the masonry and the compensating insulation.

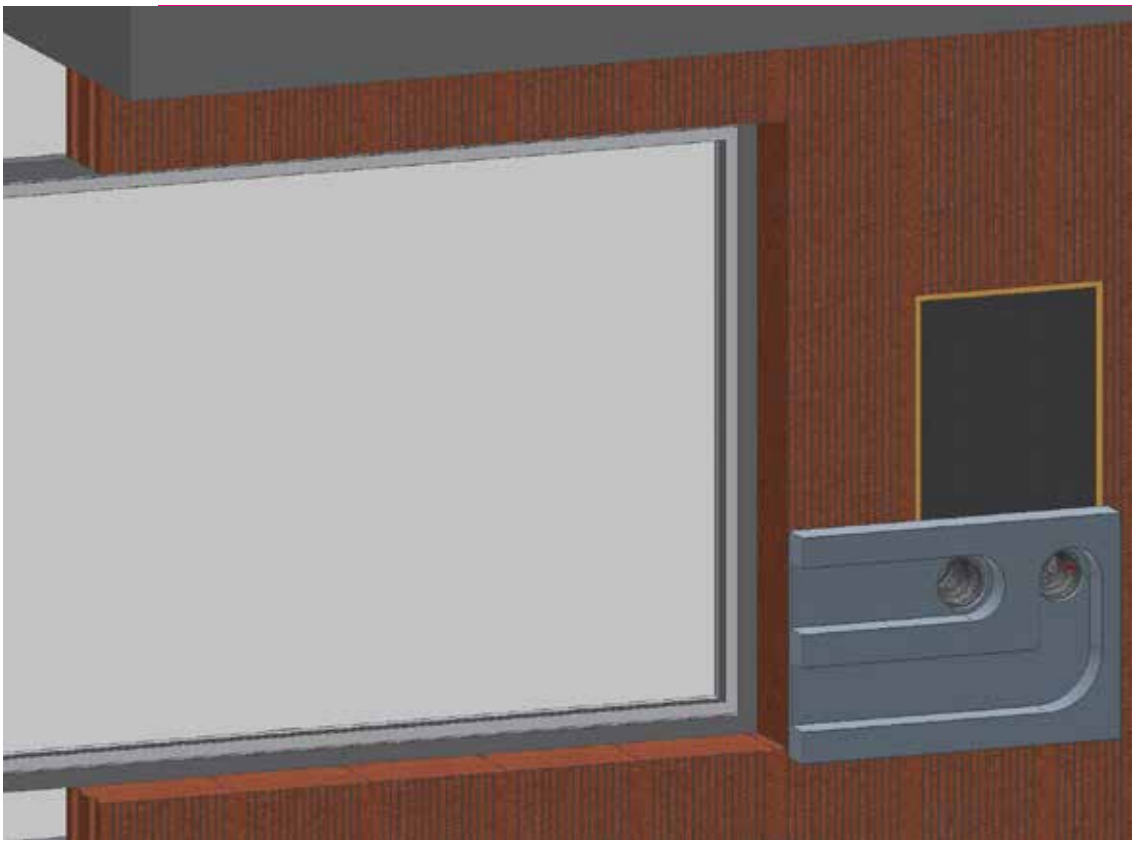


Shorten wall duct

Wall duct flush with masonry

4.3.2. INSTALLING THE INSULATING PANEL FOR THE CONNECTION SET

Align the insulation panel (thickness: 100 mm) at the wall duct – shorten it, if necessary – and fix it with glue on its full surface.



Install insulating panel

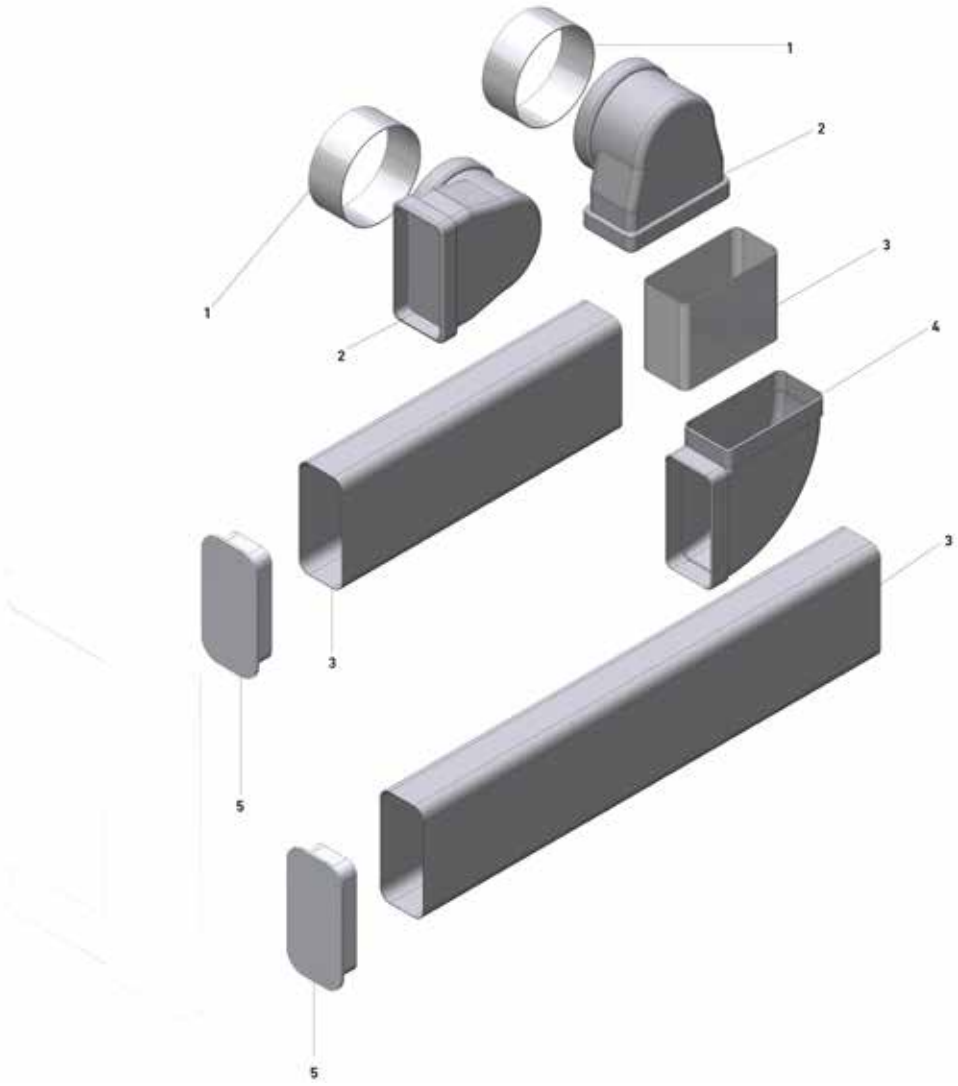
4.3.3. MOUNTING THE CONNECTION SET

When you have fastened the insulating panel, mount the connection set for the reveal.

Left-hand reveal

Right-hand reveal

The connection set for connecting the outdoor air and exhaust air pipes to the exterior wall element of the reveal consists of two plastic rings (1) that are led to the air ducts (3) with the square/round transitions (2). For the exhaust air routing, the set also contains a 90° bending (4).



Connection set

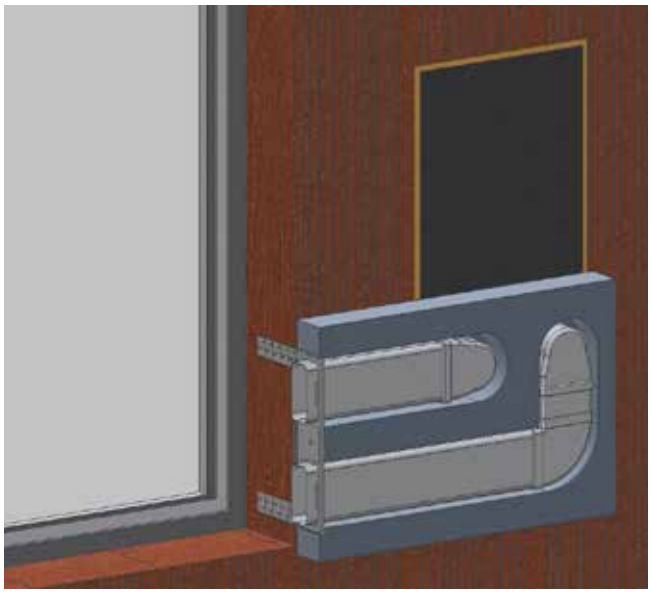
For this purpose, place the air ducts into the guide of the insulating panel, depending on the alignment side (right or left), and insert them into the outdoor air and exhaust air outlet.

The exhaust air routing (EHA) must always run at the bottom.

Connection set for connecting the outdoor air and exhaust air ducts to the exterior wall element of the reveal, consisting of:		
Designation	**Item number**	**Quantity**
Plastic ring ø 125 mm **(1)**	40LG0300063A	2 items
Square/round transitions **(2)**	08UERV12515070	2 items
Flat duct 1m, plastic **(3)**	08K150701000	2 items
Flat 90° bending**(4)**	08B9015070	1 item
Duct end cover **(5)**	08EP15070	2 items

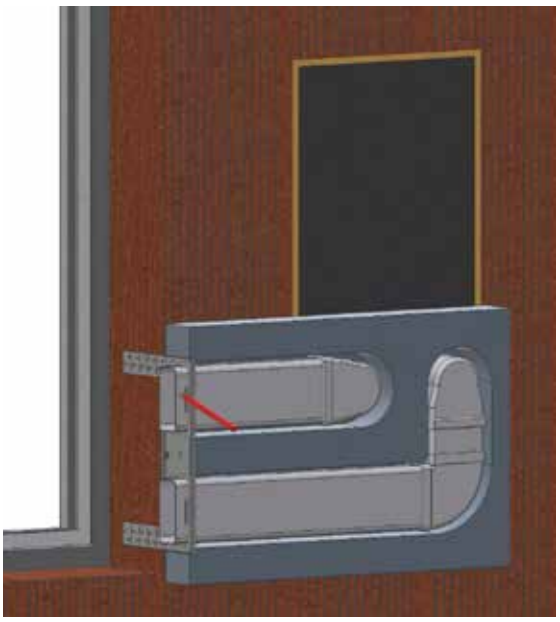
4.3.4. SHORTENING THE AIR DUCTS

In order to determine the required length of the air ducts, the mounting plate is mounted on the air ducts and is inserted onto the reveal up to the stop.

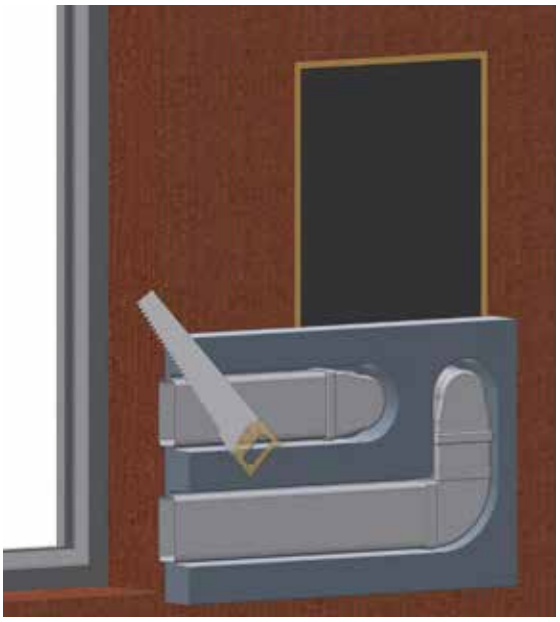


Fitting the mounting plate

Then place a mark at the height of the strap, remove the mounting plate again and shorten the air ducts correspondingly.



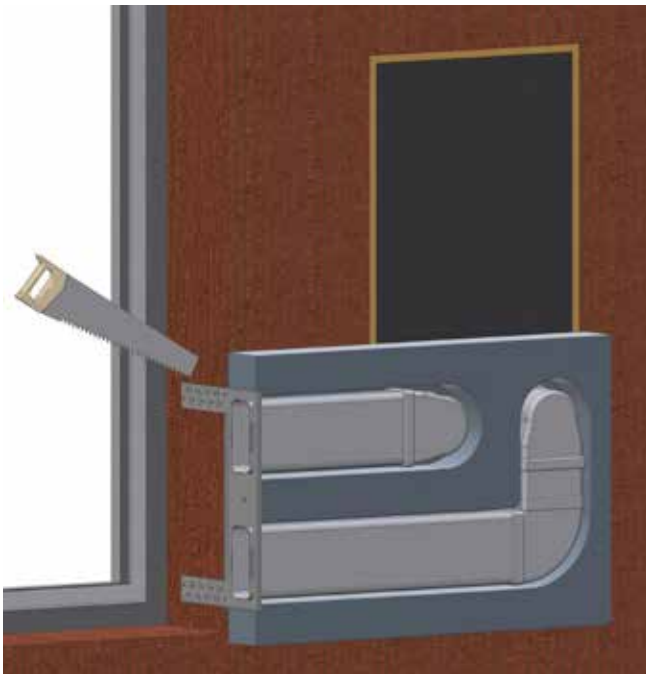
Placing a mark



Shortening the air ducts

4.3.5. CUTTING THE MOUNTING STRAPS TO LENGTH

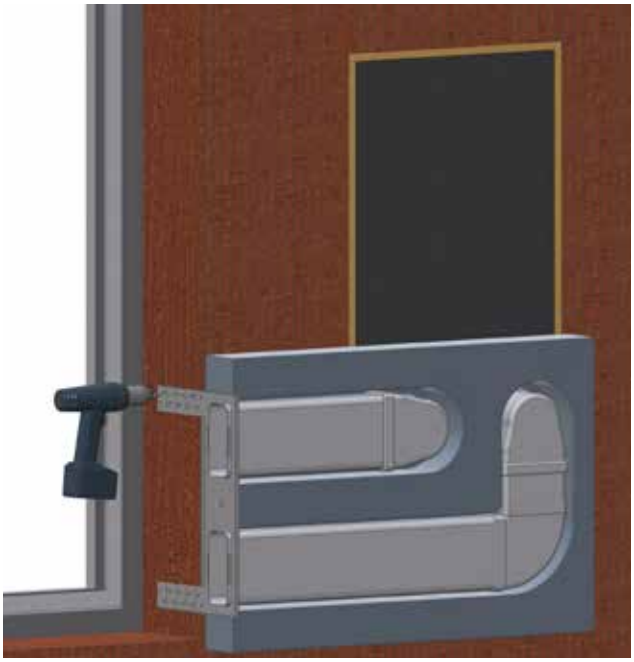
If required, the mounting plate can be shortened at the predetermined breaking points provided for this purpose.



Shortening the mounting plate

4.3.6. FASTENING THE MOUNTING PLATE

Now fasten the mounting plate by means of screws at the top and at the bottom in the masonry.



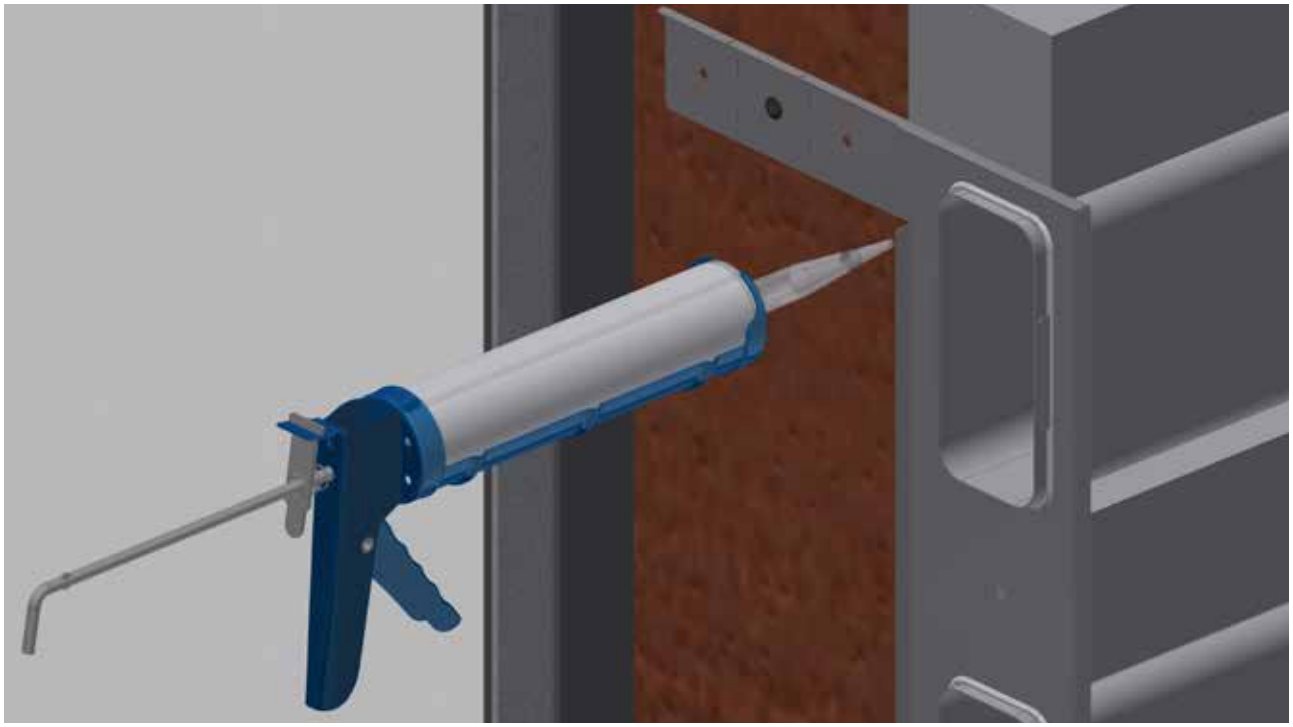
Drilling holes

Fastening the mounting plate

Installed mounting plate

4.3.7. SEALING THE AIR DUCTS IN THE MOUNTING PLATE

The gap between the mounting plate and the air duct must be sealed with silicone.



Sealing the air ducts

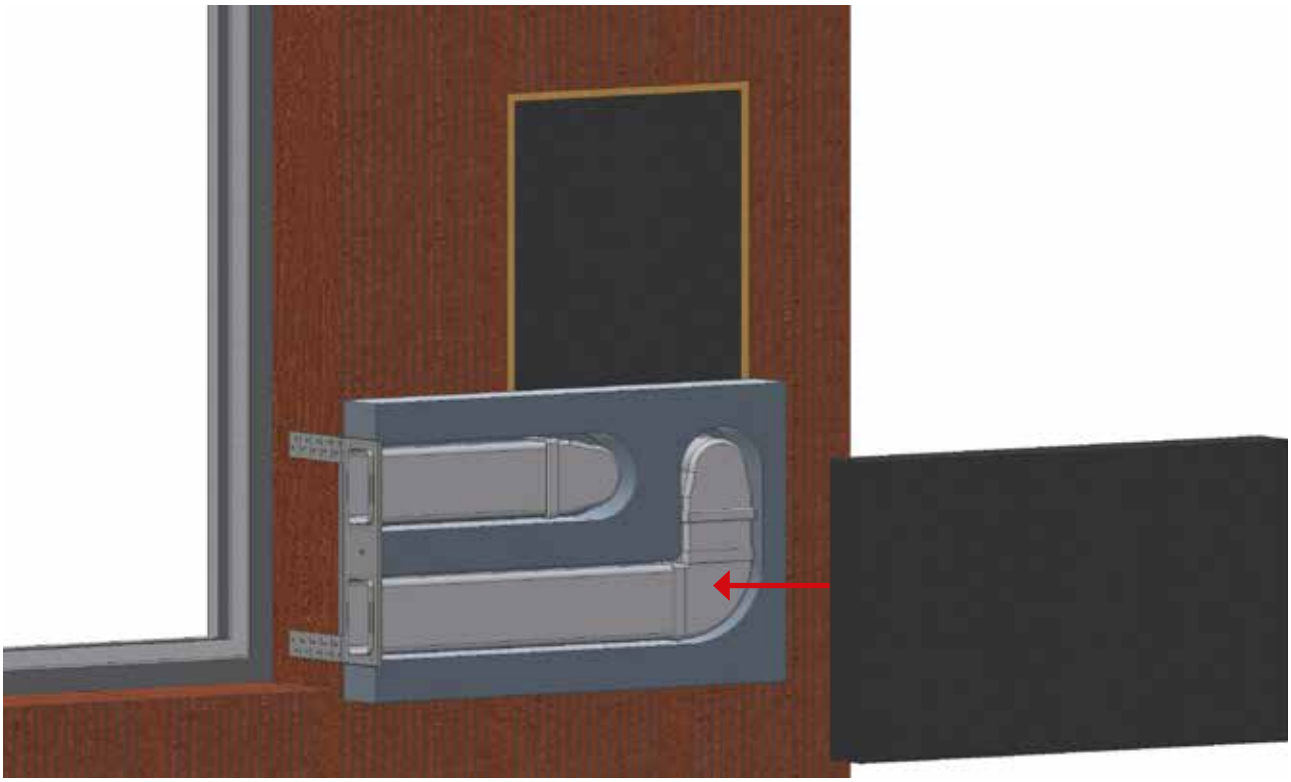
4.3.8. SEALING THE AIR DUCTS

The further construction work (facade insulation and plastering) require that the air ducts are sealed.
For this purpose, the end caps supplied are used.

Mounting the end caps

4.3.9. COMPLETING THE FACADE INSULATION

In order to obtain the final insulation strength, a compensating insulation (on site) must be fitted.

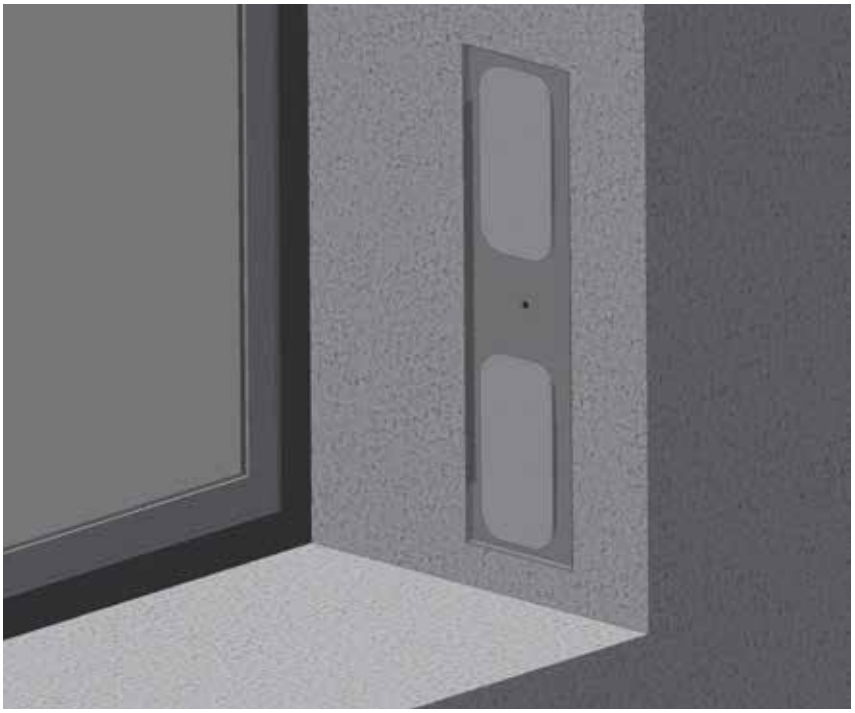


Gluing the facade insulation onto the insulating panel

Completing the facade insulation

4.3.10. APPLYING THE FACADE PLASTER

The facade plaster is applied up to the plaster edge of the mounting plate and must fully cover both mounting straps.

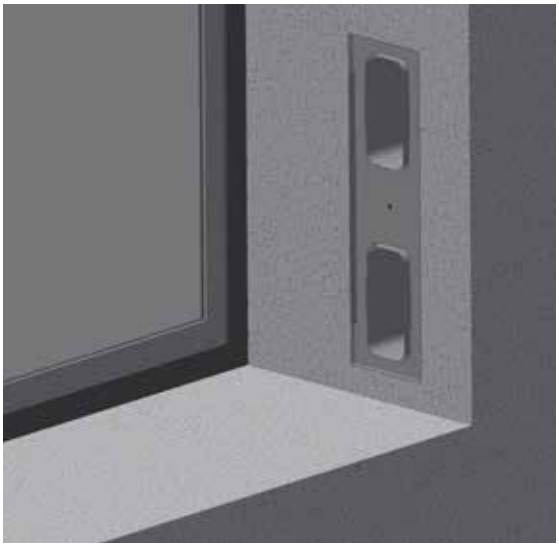


Applying the exterior plaster

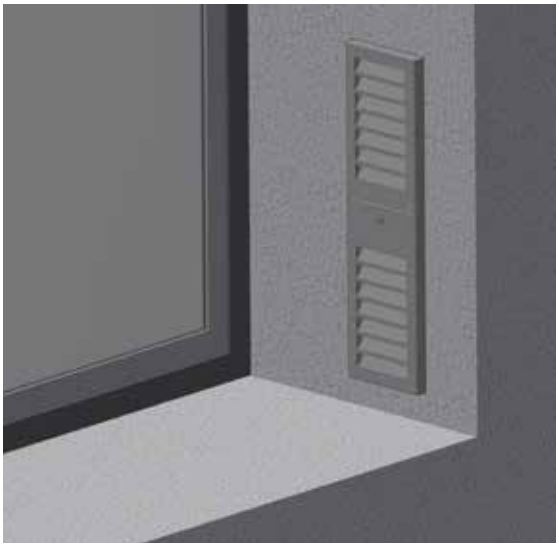
4.3.11. FITTING THE EXTERIOR WALL GRILLE

The end caps must be removed, the weather protection grille mounted and fastened using the screw supplied.

Mount the weather protection grille so that the ventilation slots are pointing towards the bottom, in order to prevent the ingress of water when it is raining!

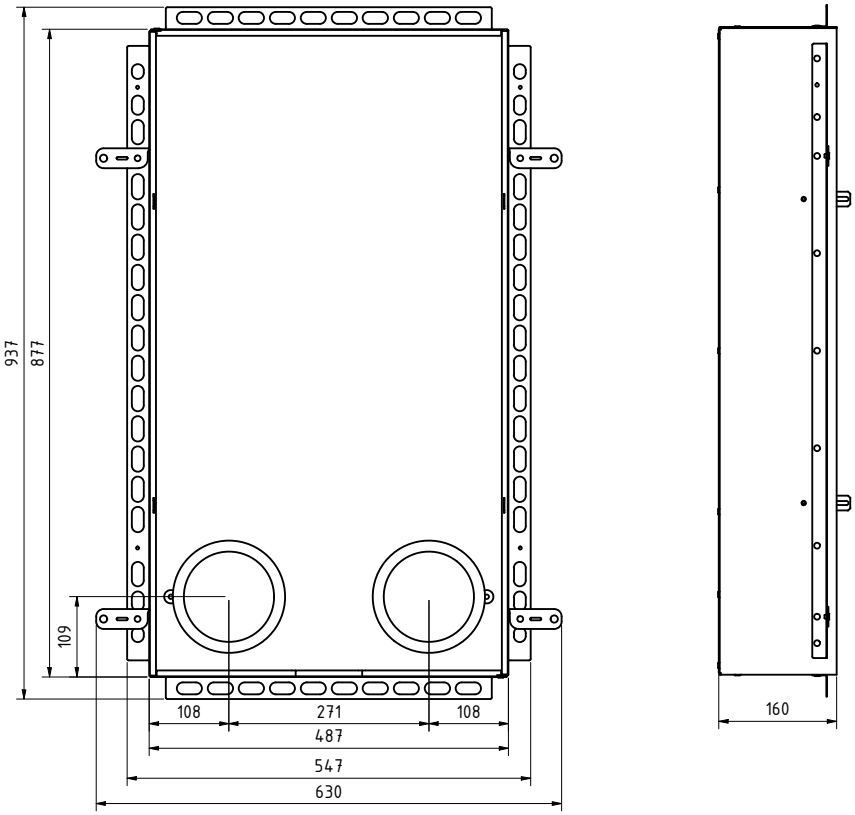


Removing the end caps

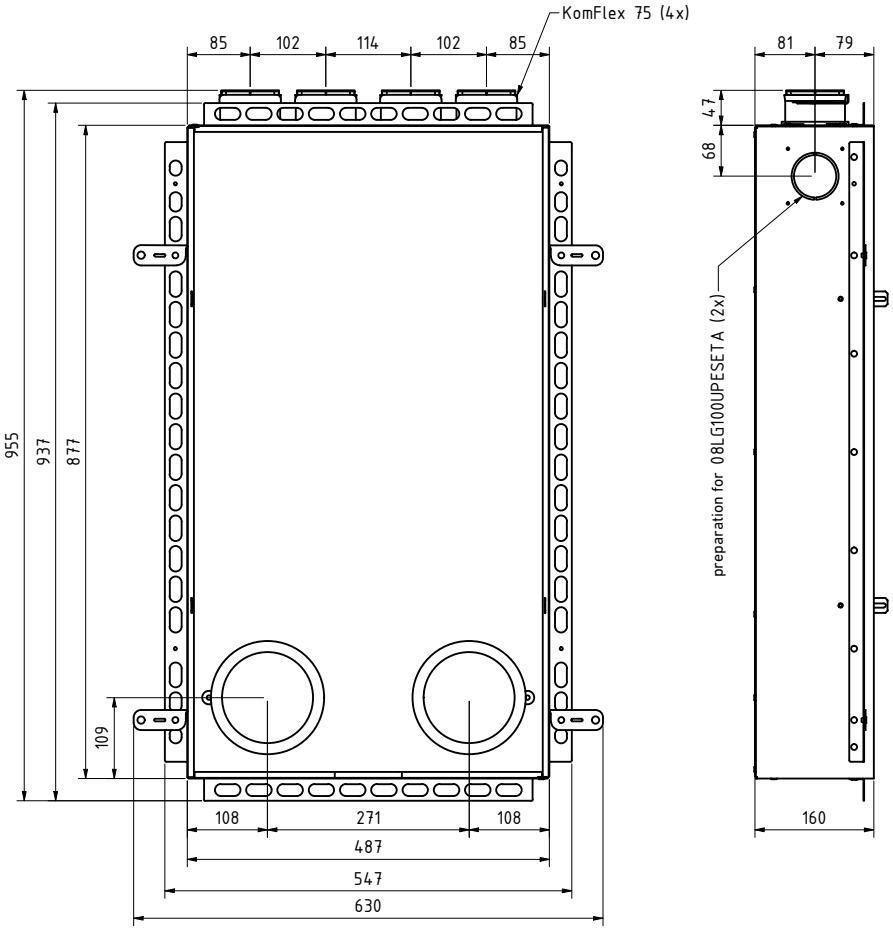


Mounting the weather protection grille

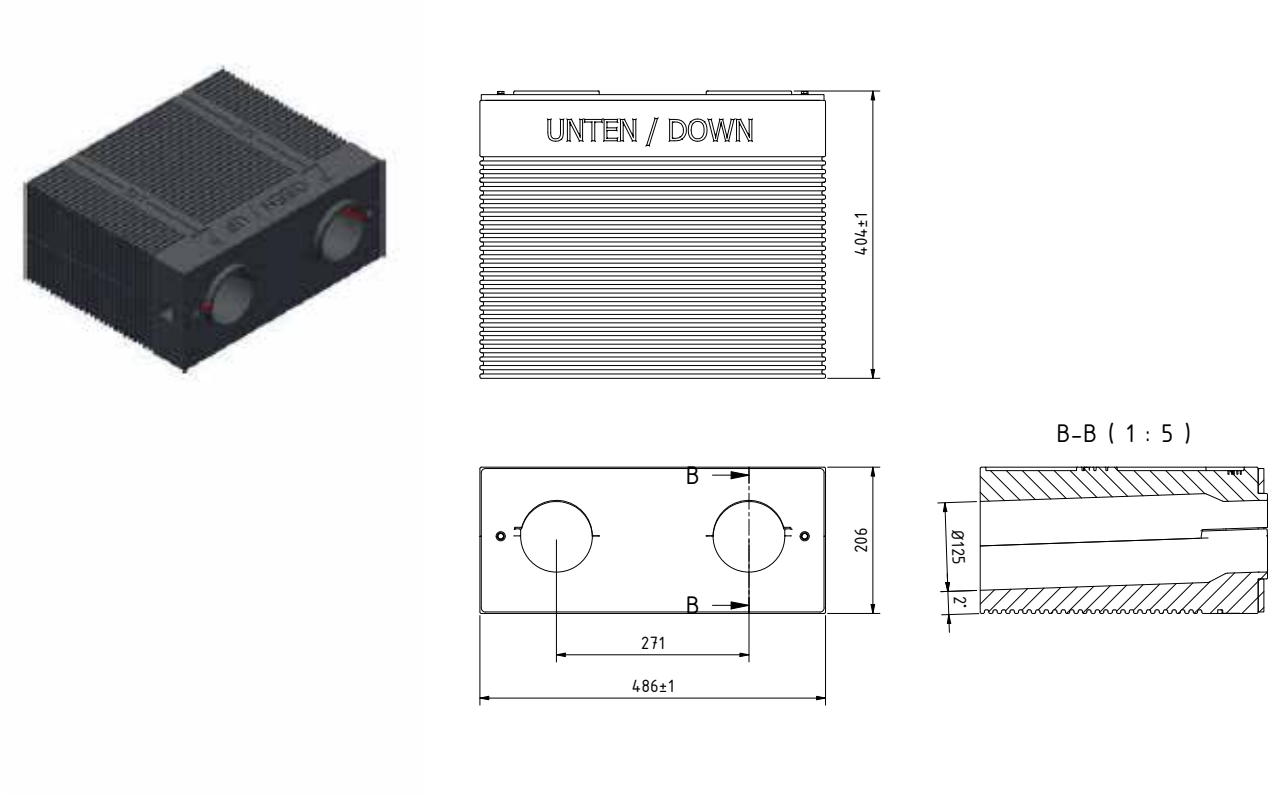
5. Layout sketches



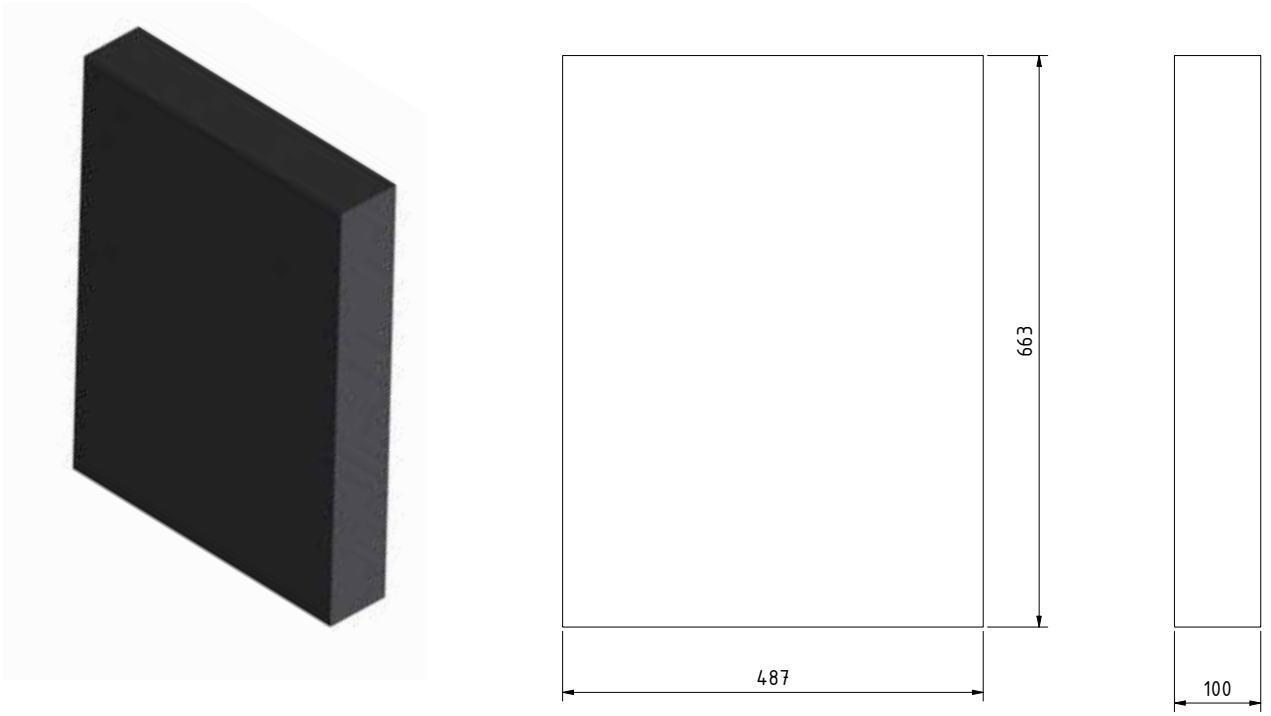
Dimensions of the flush-mounted housing, single-room application



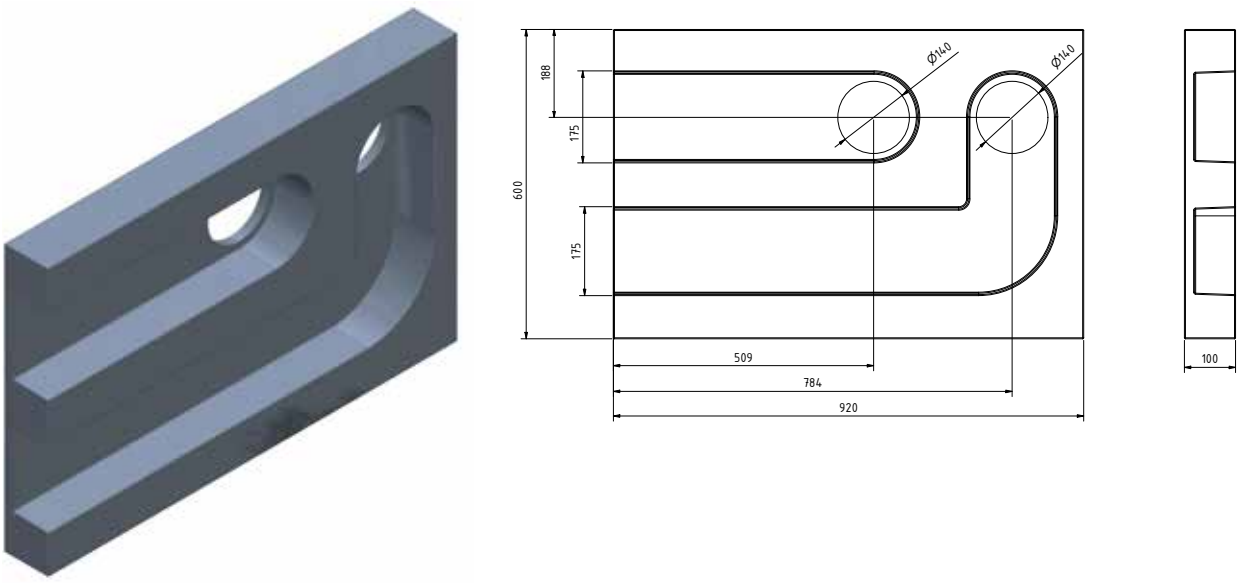
Dimensions of the flush-mounted housing, multi-room application



Dimensions of the wall duct



Dimensions of the compensating insulation



Dimension of the FL insulating panel

6. EC Declaration of Conformity

Hersteller / Manufacturer:	J. Pichler Gesellschaft m.b.H.
Anschrift / Address:	Karlweg 5 A-9021 Klagenfurt am Wörthersee
Bezeichnung / Product description:	Dezentrales Kompaktlüftungsgerät mit integrierter Steuerung
Ausführungen / Type:	LG 100 UP / LG 100 AP / LG100 DE mit Bedieneinheit MINI

Die bezeichneten Produkte stimmen in der von uns in Verkehr gebrachten Ausführung mit den Vorschriften folgender europäischen Richtlinien überein:
The products described above in the form as delivered are in conformity with the provisions of the following European Directives:

2014/35/EU	Zur Harmonisierung der Rechtsvorschriften der Mitgliedsstaaten über die Bereitstellung elektrischer Betriebsmittel zur Verwendung innerhalb bestimmter Spannungsgrenzen auf dem Markt *On the harmonisation of the laws of the Member States relating to the making available on the market of electrical equipment designed for use within certain voltage limits*
2014/30/EG	Zur Harmonisierung der Rechtsvorschriften der Mitgliedstaaten über die elektromagnetische Verträglichkeit *On the harmonisation of the laws of the Member States relating to electromagnetic compatibility*
2009/125/EG	Richtlinie des Europäischen Parlaments und des Rates zur Angleichung der Rechtsvorschriften der Mitgliedsstaaten zur Schaffung eines Rahmens für die Festlegung von Anforderungen an die umweltgerechte Gestaltung energieverbrauchsrelevanter Produkte *Council Directive on the approximation of the laws of the Member States establishing a framework for the setting of ecodesign requirements for energy-related products*

Die Konformität mit den Richtlinien wird nachgewiesen durch die Einhaltung folgender Normen und Verordnungen:
Conformity to the Directives is assured through the application of the following standards and regulations:

VO 1253/2014/EU Verordnung (EU) der Kommission zur Durchführung der Richtlinie 2009/125/EG des Europäischen Parlaments und des Rates hinsichtlich der Anforderungen an die umweltgerechte Gestaltung von Lüftungsanlagen
COMMISSION REGULATION (EU) implementing Directive 2009/125/EC of the European Parliament and of the Council with regard to ecodesign requirements for ventilation units

VO 1254/2014/EU zur Ergänzung der Richtlinie 2010/30/EU des Europäischen Parlaments und des Rates im Hinblick auf die Kennzeichnung von Wohnraumlüftungsgeräten in Bezug auf den Energieverbrauch
VO 1254/2014/EU supplementing Directive 2010/30/EU of the European Parliament and of the Council with regard to energy labelling of residential ventilation units

DIN EN 60335-1:2012-10 + Ber.1:2014-04 + Ber.2:2014-11+Bbl.1:2016-06+A13:2018-07
DIN EN 60335-2-40:2014-01
ETSI EN 301 489-1 V2.1.1:2017-02
ETSI EN 301 489-17 V3.1.1:2017-02
EN IEC 61000-3-2:2019-03
EN 61000-3-3:2013-08
EN 62233:2008-04
EN 55014-1:2017-04
EN 55014-2:2015-04

Eine vom Lieferzustand abweichende Veränderung des Gerätes führt zum Verlust der Konformität.
Product modifications after delivery may result in a loss of conformity.

Diese Erklärung bescheinigt die Übereinstimmung mit den genannten Richtlinien, ist jedoch keine Zusicherung von Eigenschaften. Die Sicherheitsinformationen der mitgelieferten Produktdokumentation sind zu beachten.
This declaration certifies the conformity to the specified directives but contains no assurance of properties. The safety documentation accompanying the product shall be considered in detail.

J. Pichler Gesellschaft m.b.H.
Geschäftsleitung / General Manager

Klagenfurt, am 16. Juni 2020

ErP 2018
Fulfils the requirements of the Ecodesign Directive in accordance with EU Regulation 1253/2014.

EPREL
Our LG 100 compact ventilation unit is listed in the European Product Database for Energy Labelling (EPREL).

Responsible for the content: J. Pichler Gesellschaft m.b.H.
Photos: Ferdinand Neumüller, Archiv J. Pichler Gesellschaft m.b.H. | ***Text:*** J. Pichler Gesellschaft m.b.H.
 Version: 06/2023 eh

PICHLER
Systematic ventilation.

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