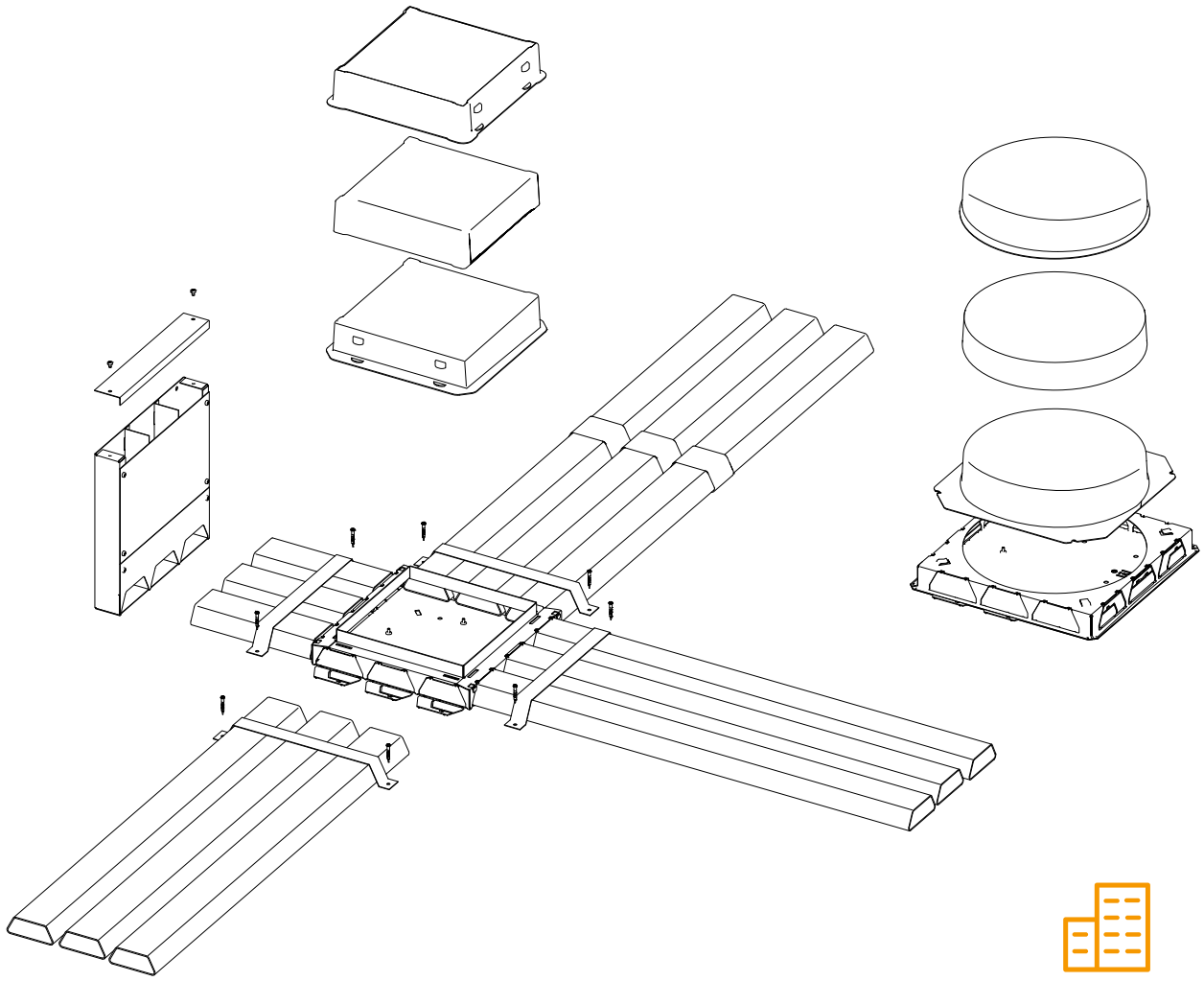


Mounting instructions

EÜK-SN screed-covered duct system

OBO BETTERMANN

Screed-covered duct system EÜK-SN
Mounting instructions

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1 About these instructions

1.1 Target group



These instructions are intended for the following target groups:

– Trained electrical specialists charged with mounting the screed-covered duct system EÜK-SN

– Electrical planners and engineers charged with the planning of underfloor systems

Electrical work may only be carried out by specialist personnel with electrical training.

1.2 Relevance of these instructions



These instructions are based on the standards valid at the time of compilation (September 2026).

Please read the instructions carefully before commencing mounting. We will not accept any warranty claims for damage and liability caused through non-observance of these instructions.

Any images are intended merely as examples. Mounting results may look different.

In these instructions, cables and lines are referred to simply as cables.

To find out more about planning and mounting the product, we recommend a comprehensive training course.

1.3 Types of warning information

⚠ CAUTION

Type of risk!
Shows a risky situation. If the warning information is not observed, then medium or minor injuries may occur.

ATTENTION

Type of risk!
Shows a risky situation. If the warning information is not observed, then damage to the product or the surroundings may occur.

Note! *Indicates important information or assistance.*

1.4 Basic standards and regulations

– DIN EN 50085-1: Electrical installation trunking and duct systems for electrical installations – Part 1: General requirements

– DIN EN 50085-2-2: Electrical installation duct systems for electrical installations – Part 2-2: Particular requirements for cable trunking systems and cable ducting systems intended for mounting underfloor, flushfloor or onfloor.

– DIN VDE 0100: Low-voltage electrical installations

1.5 Applicable documents

– Declarations of conformity

– VDE symbol approval

2 Intended use

The screen-covered duct system EÜK-SN and the corresponding underfloor boxes are used for cable routing and to install electrical resources (such as sockets, data technology and multimedia connections). The duct system is made from PVC and metal.

The screed-covered duct system EÜK is suitable for dry- and wet-care surfaces.

3 Safety

3.1 General safety information

Observe the following general safety information:

– Contact with electrical current can lead to an electric shock.

– Electrical work may only be carried out by specialist personnel with electrical training.

– Before the screed work, seal all the openings to prevent screed ingress.

3.2 Personal protective equipment

List of personal protective equipment to be used:



Use hand protection



Wear safety shoes



Wear eye protection

4 Necessary tools

List of tools to be used:

– OBO anchor
– OBO flattener
– Slotted screwdriver
– Allen key (size 10)
– Laser measurement device or chalk line
– Spirit level
– Side cutter
– Angle grinder
– Philips screwdriver
– Hand saw

5 System overview

5.1 System description

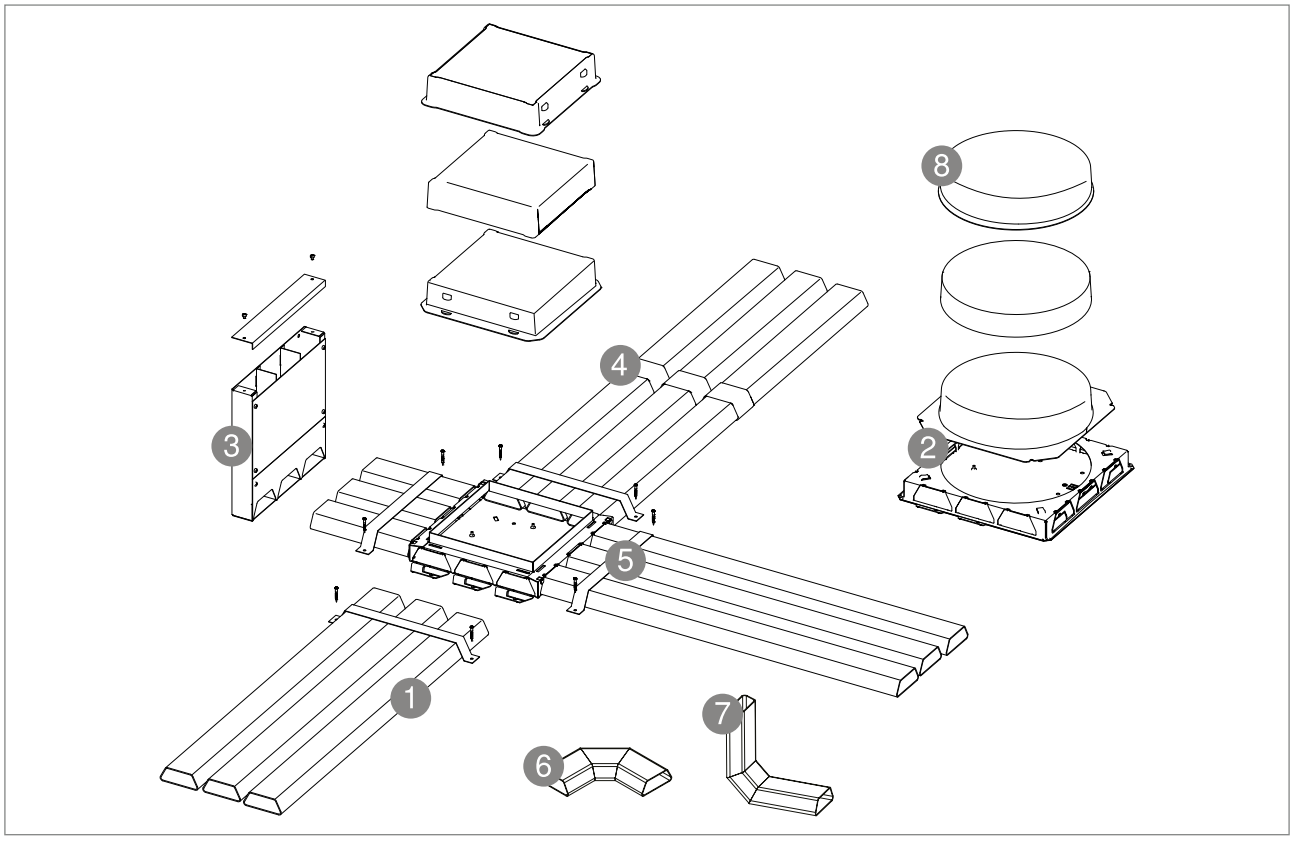


Abb. 1: System components for PVC

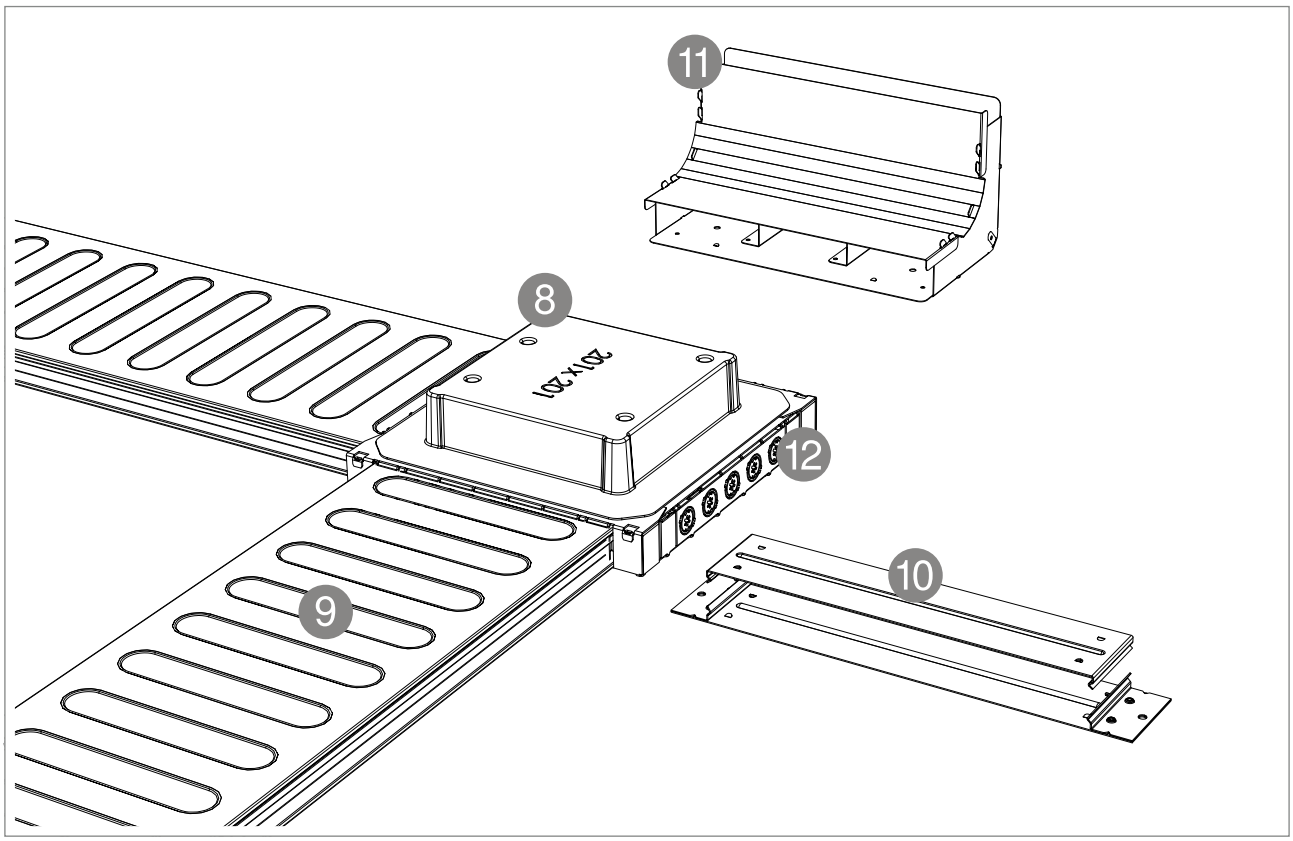
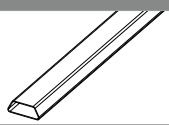
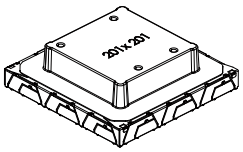
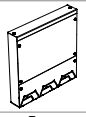
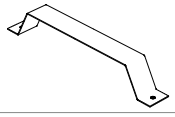
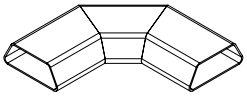
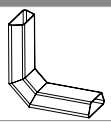
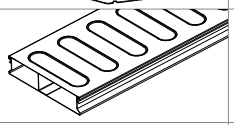
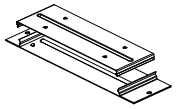
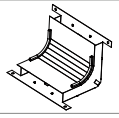
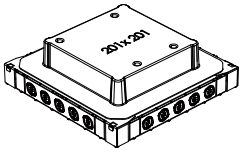


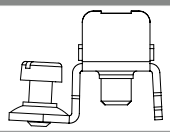
Abb. 2: System components for steel

Item no.	Product name	Figure	Function
1	Underfloor duct EÜK-SN		Trapezoid duct, single-compartment, for use in cement screeds and under raised floors.
2	Underfloor box		Underfloor connection box with fixed, unchangeable 201 x 201 mm installation opening for an installation unit of nominal size 4. The mounting opening is created using the screed protection cover contained in the scope of supply. The underfloor box possesses installation openings for three single-compartment PVC ducts of nominal size 60 x 25 and 90 x 35 on all four sizes. The box is principally suited for use in floor structures in cement screed with a structure height of up to 90 mm.
3	Vertical connection box		Vertically mountable connection box for up to three PVC ducts of heights 25 mm and 35 mm.
4	Connection shackle		Coupling element to connect single-compartment PVC ducts with trapezoid cross-section.
5	Fastening clamp		Fastening strap for 3 adjacent single-compartment PVC duct lengths of width 90 mm.
6	Horizontal bend		Horizontal bend for a 90° change of direction, for duct size 90x35.

Item no.	Product name	Figure	Function
7	Vertical bend		Vertical bend for a 90° change of direction, for duct size 90x35.
8	Screed protection cover		Screed protection cover for reliably protecting the screed during the construction and mounting phase. Mounted on the underfloor box. Suitable as height extension.
9	Underfloor duct (2 piece)		Underfloor duct (2 piece) for routing cables in screed-covered underfloor systems, according to EN 50085-2-2. Removable and continuously lockable duct cover.
10	Connection shackle (2 piece)		Connection shackle (2 piece) for conductive mounting of screed-covered underfloor ducts. The connection shackle snaps in to the duct side walls.
11	Vertical bend		Two-part vertical bend for vertical direction changes of screed-covered underfloor ducts (wall connections, supply lines).
12	Underfloor box		Underfloor connection box with fixed, unchangeable 201 x 201 mm installation opening for an installation unit of nominal size 4. The mounting opening is created using the screed protection cover contained in the scope of supply. The underfloor box possesses installation openings for a 2- or 3-compartment sheet steel underfloor duct of nominal size 25038 as well as six M20 or M25 installation pipes on all four sides. The box is principally suited for use in floor structures in cement screed with a structure height of up to 90 mm.

Tab. 1: System components – overall system

5.2 Accessories

Designation	Figure	Function	Item no.
Protective conductor connection bracket 8AWR		Protective conductor connection bracket to include the duct system in the protective measure. Clamping range: 2x 1.5–4 mm²	6288704

Tab. 2: Accessories

6 Mounting the screed-covered duct system

6.1 Preparations for mounting

CAUTION

Risk of electric shock!
The duct system must be connected in a manner that is fully conductive! The mounting of the screed-covered duct system takes place on the raw floor, as the required electrical connection would not otherwise be guaranteed.

ATTENTION

Risk of damage!
Product damage to the height-adjustment units! During the construction

phase, do not stand on the underfloor box, otherwise the duct system will not function. The damaged underfloor boxes must be replaced.

1. Create a clean, even raw floor as the basis for the screed-covered duct system.

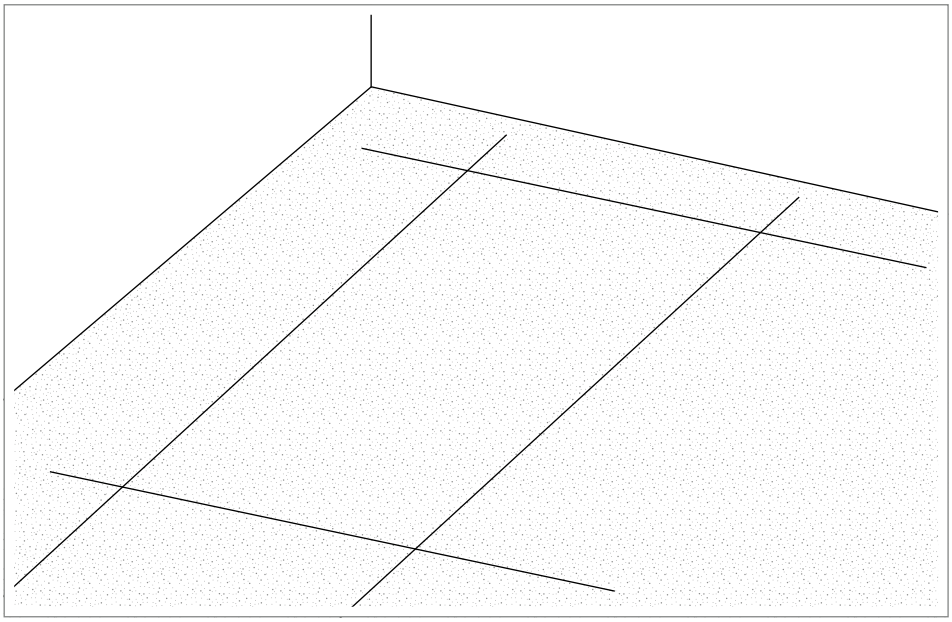


Fig. 3: Preparations for mounting

2. Mark the planned cable routes and cross-over points of the underfloor box ❷/⓬ on the floor, using a suitable tool (e.g. laser measurement device, chalk reel or chalk line).

6.2 Mounting the underfloor box

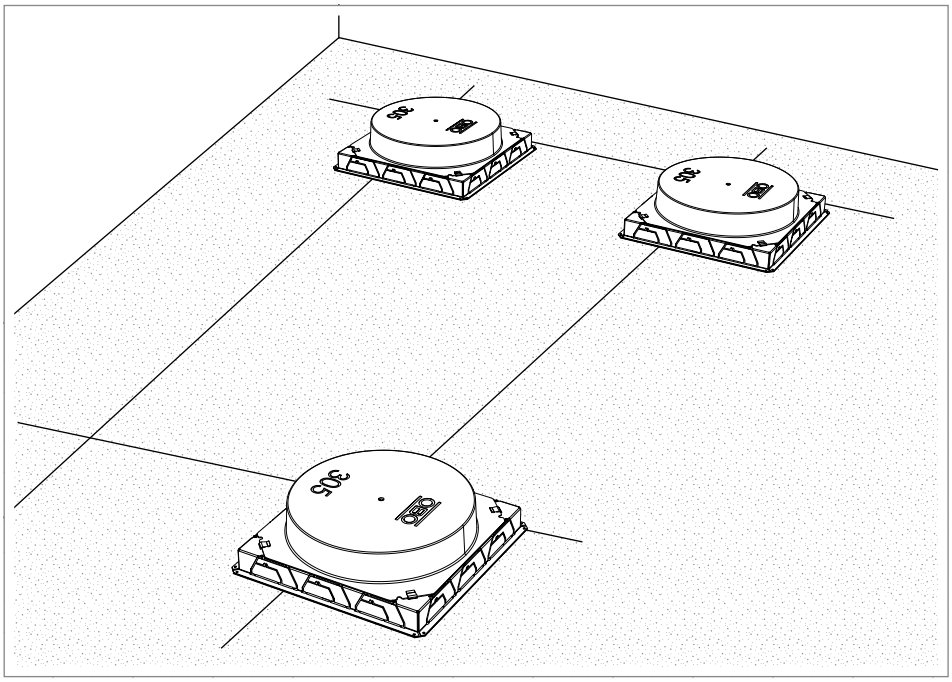


Fig. 4: Mounting the underfloor box

1. Align the underfloor box ❷/⓬ to the cross-over points.

2. Determine the length of the required underfloor ducts (EÜK-SN or 2 piece) ❶/❾.

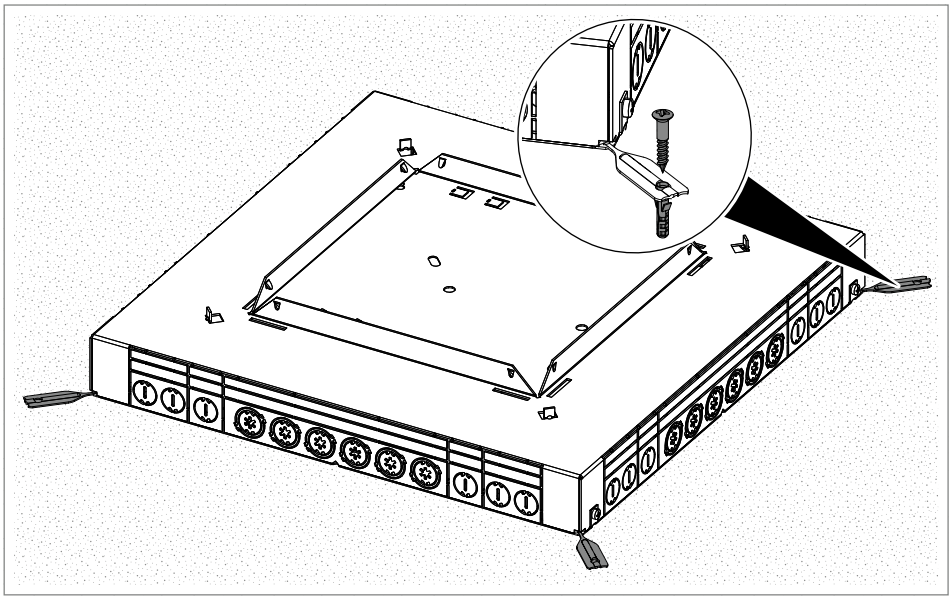


Fig. 5: Fastening the underfloor box – OBO Switzerland

3. Fold out the fastening straps of the underfloor box ❷/⓬.

4. Fasten the underfloor box ❷/⓬ to the raw floor using suitable fastening material (e.g. anchor and screw).

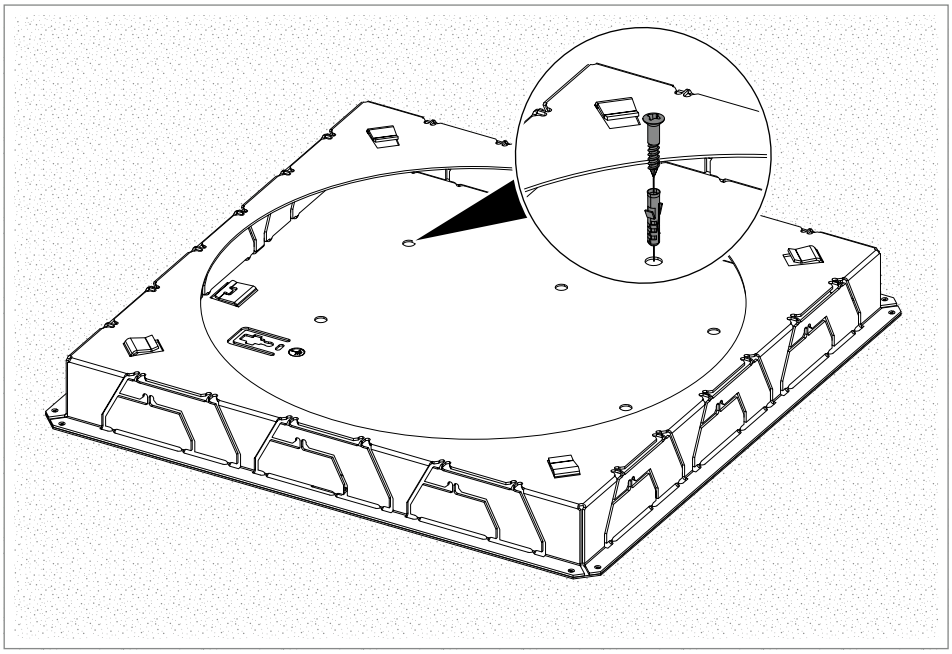


Fig. 6: Fastening the underfloor box – OBO standard

5. Fasten the underfloor box ❷/⓬ to the raw floor using suitable fastening material (e.g. anchor and screw).

6.3 Mounting the underfloor ducts

6.3.1 Mounting underfloor ducts EÜK-SN

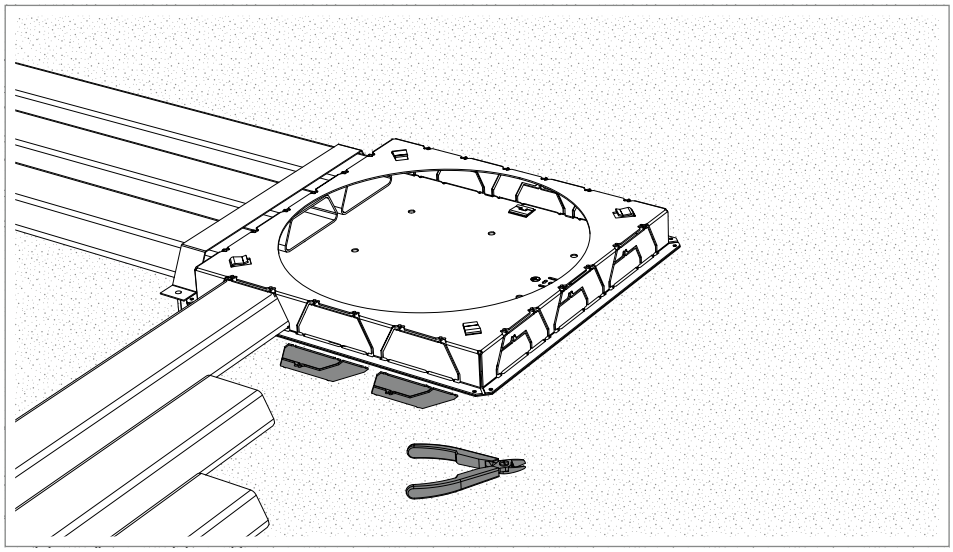


Fig. 7: Inserting the underfloor duct

1. Open the side walls of the underfloor boxes ❷ using pliers (e.g. side cutters).

2. Fold the straps to the front.

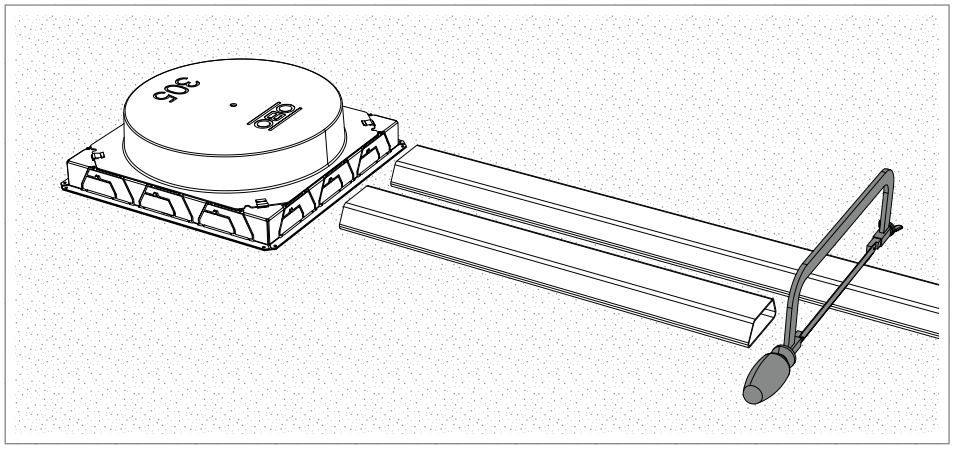


Fig. 8: Cutting the underfloor ducts

3. Cut underfloor duct EÜK-SN ❶ to the required length.

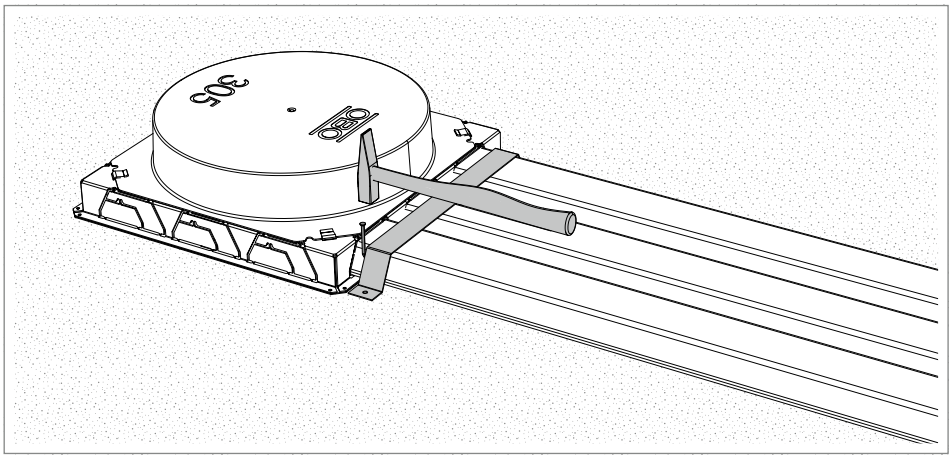


Fig. 9: Fastening the underfloor duct

4. Fasten underfloor ducts EÜK-SN ❶ to the raw concrete using a fastening clamp.

6.3.2 Mounting underfloor ducts (2 piece)

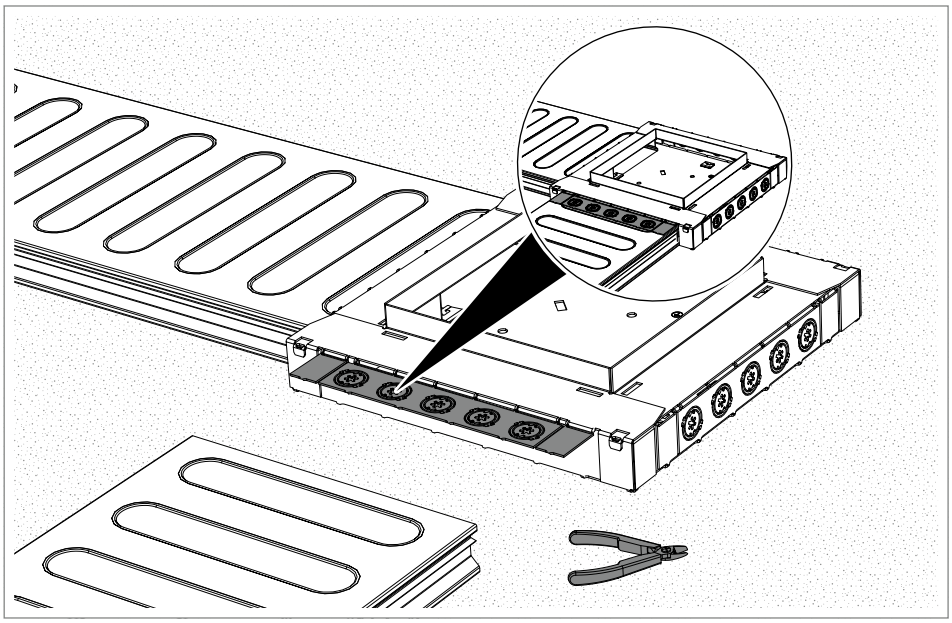


Fig. 10: Opening the duct entry

1. Open the side walls of the underfloor boxes ⓬ using pliers (e.g. side cutters).

2. Fold the strap to the front.

6.3.3 Mounting installation pipes

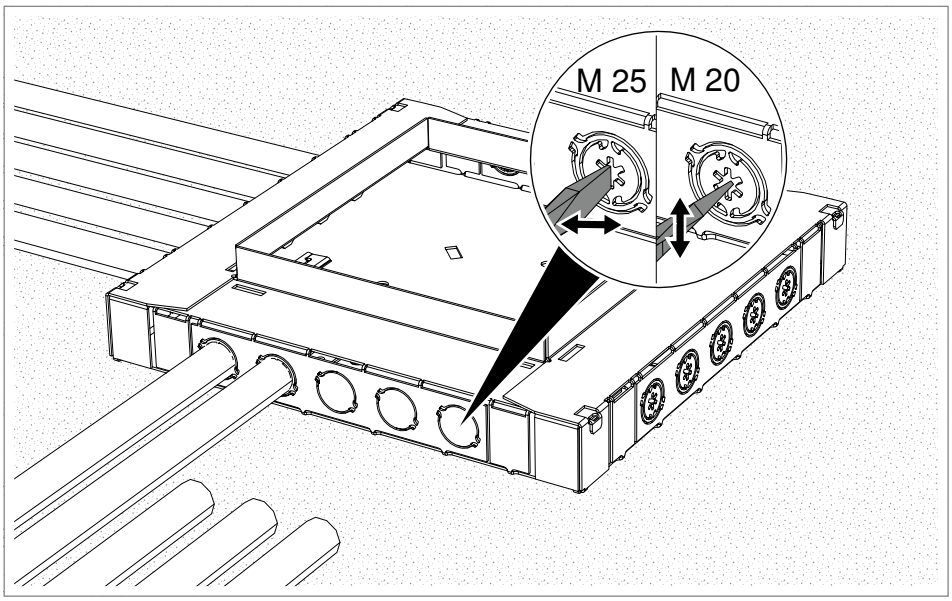


Fig. 11: Opening the pipe entries

1. If required, lever out the empty pipe entries of the underfloor boxes ⑫ with a suitable tool (e.g. slotted screwdriver).

6.4 Creating the earthing connection

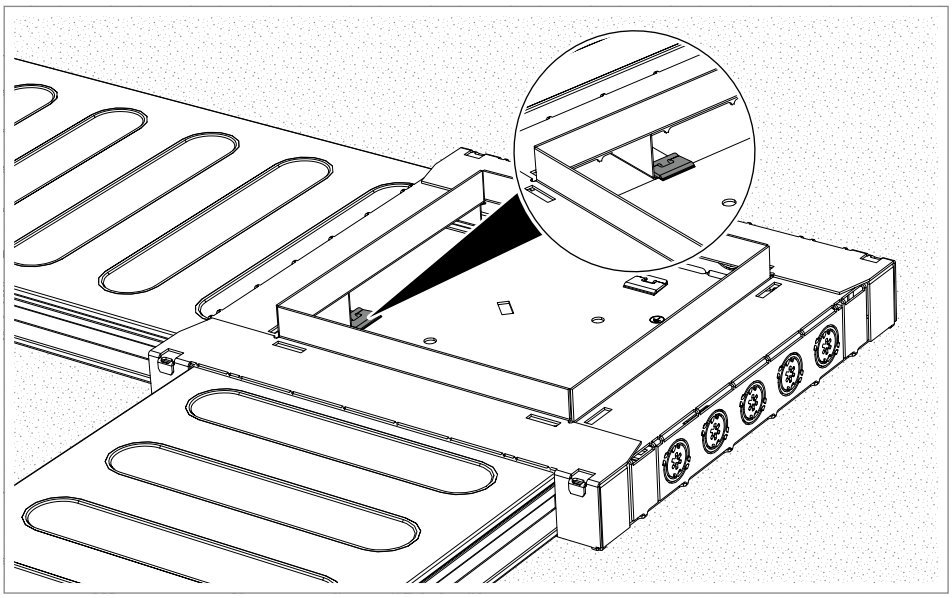


Fig. 12: Earthing the underfloor duct

Note! *For reasons of stability, the cover remains on the underfloor duct.*

1. Insert the underfloor duct (2 piece) ⑨ between the straps in the floor plate. Push the underfloor duct (2 piece) ⑨ between the folded-up straps.

2. Push the underfloor duct (2 piece) ⑨ into the centre of the floor plate until the underfloor duct (2 piece) ⑨ visibly locks in the fastening strap.

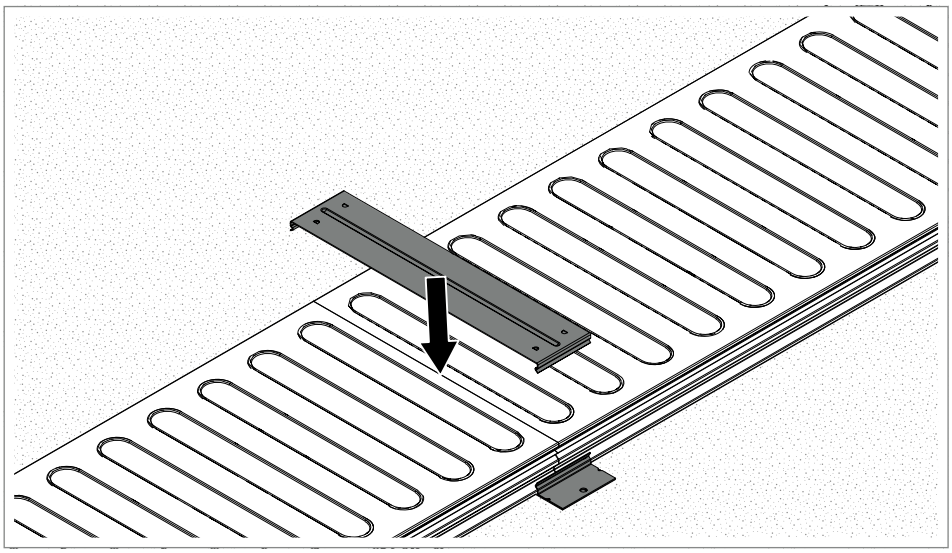


Fig. 13: Mounting the connection shackle

3. Close off the connection shackles (2 piece) ⑩ with the connection shackle cover.

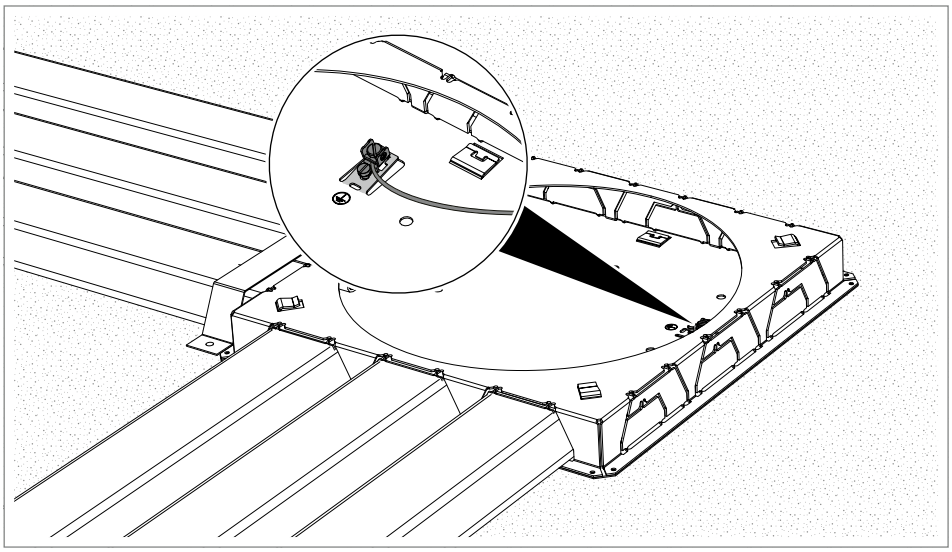


Fig. 14: Earthing the underfloor box

4. Fold over the fastening strap in the base of the underfloor box.
5. Loosen the screw of the earth conductor clamp.
6. Push the protective conductor connection bracket onto the fastening strap.
7. Tighten the screw (1.2 Nm).
8. Connect the earthing cable.

6.5 Mounting accessories

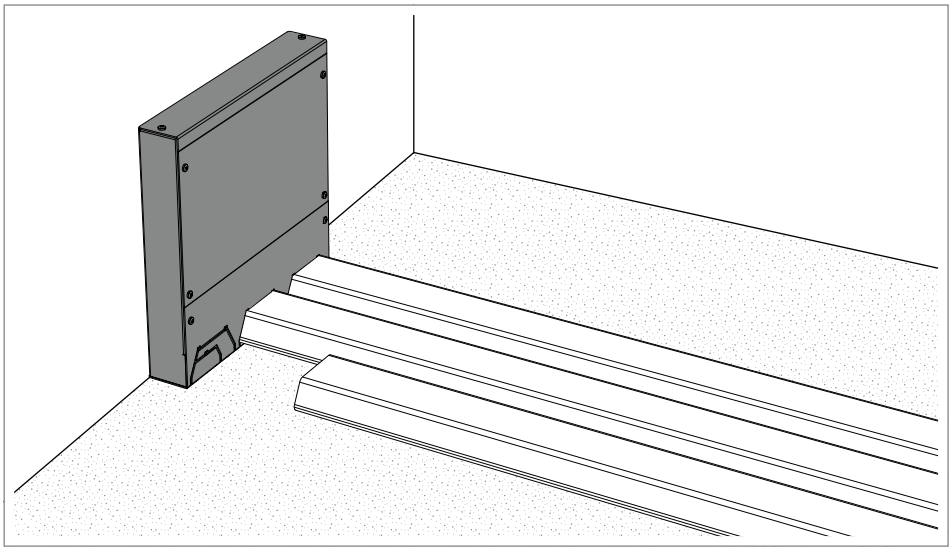


Fig. 15: Mounting the vertical connection box

1. Lay the cables using rising bends or vertical connection boxes ③.

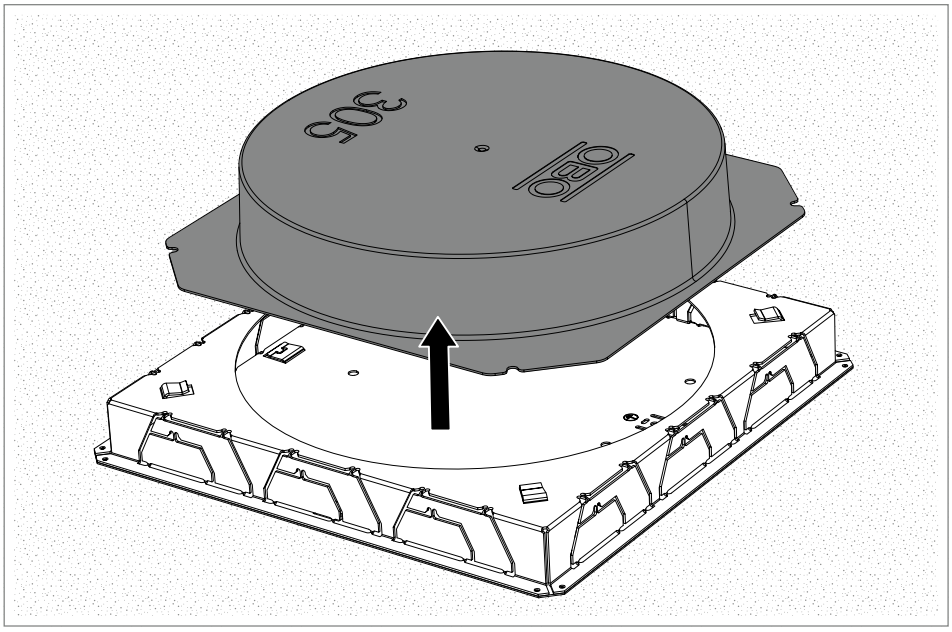


Fig. 16: Opening the underfloor box

2. Remove the screed protection cover ⑧.

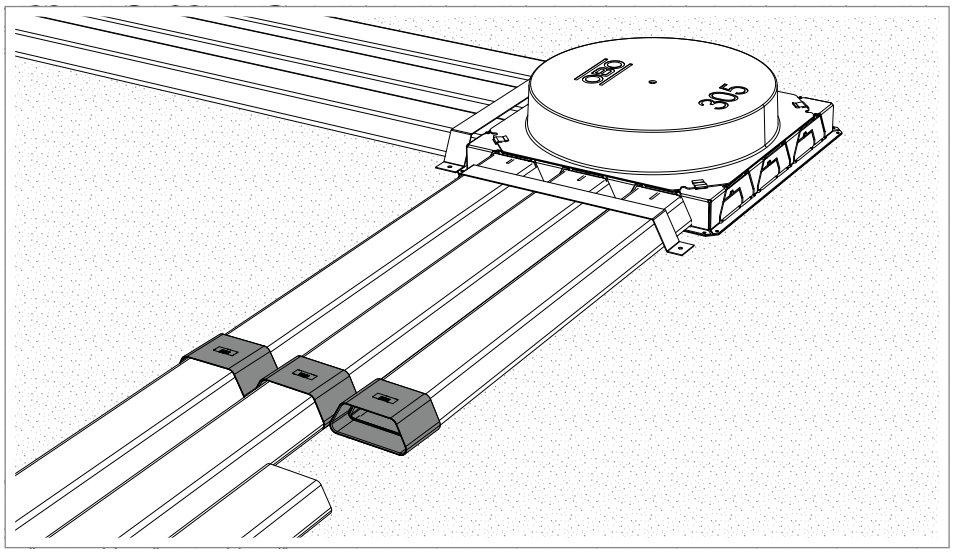


Fig. 17: Connecting the underfloor duct

3. Lock the duct connectors ❹ at the connection points of the underfloor ducts EÜK-SN ❶.

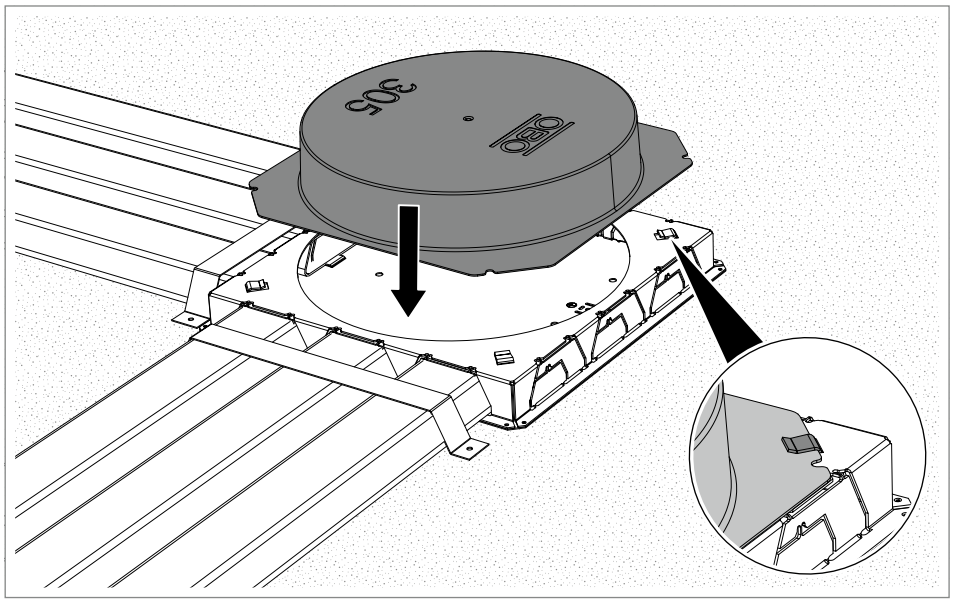


Fig. 18: Fastening the screed cover

4. Fasten the screed cover ❽ on the underfloor box ❷/⓬.

5. Slide the edge of the screed protection cover ❽ under the brackets.

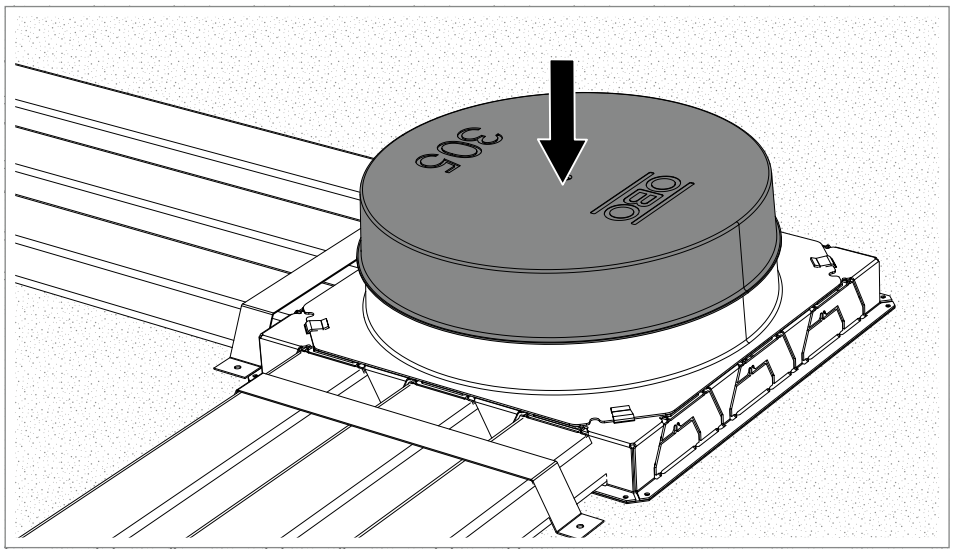


Fig. 19: Raising the screed protection cover

Note! *Compensate for structural height changes and planning tolerances of the screed-covered duct system using the screed protection cover. This enables you to adjust the height difference between the underfloor box and top edge of the screed.*

6. Fasten the raised screed protection cover ⑧ on the existing screed protection cover.

7. Glue down the raised screed protection cover ⑧.

6.6 Laying the screed

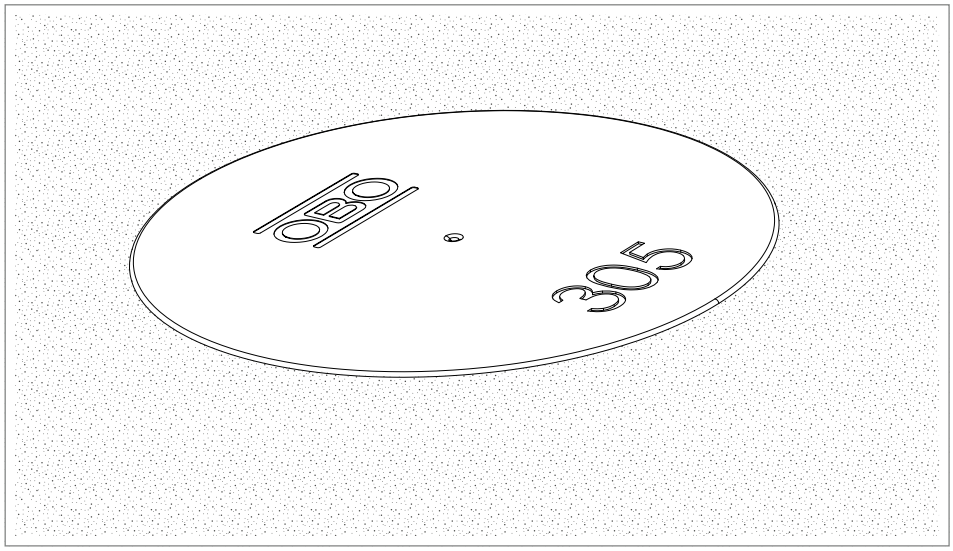


Fig. 20: Laying the screed

Note! *The cables are laid after the screed work is done.*

1. Cover the duct system with screed.

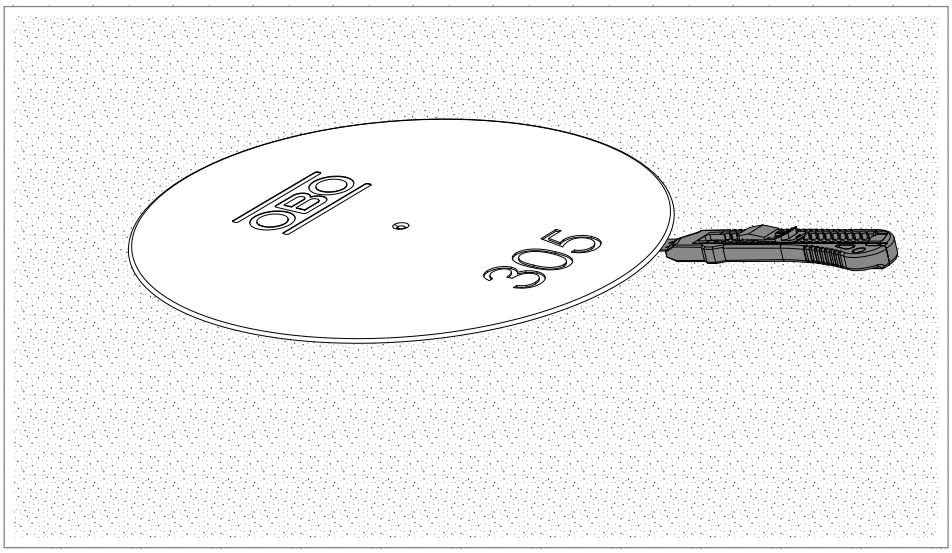


Fig. 21: Opening the installation opening

2. Cut off the excess part of the screed protection cover ⑧ using a utility knife.

7 Applying the floor covering

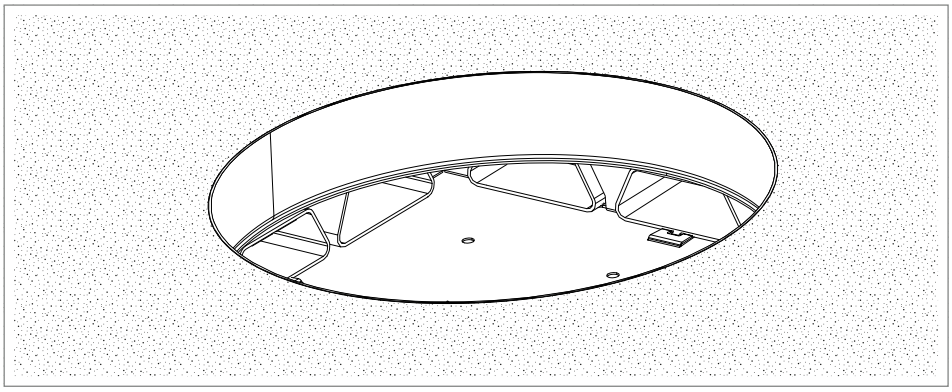


Fig. 22: Applying the floor covering

1. Apply the floor covering up to the cut-out of the screed cover ⑧.

8 Mounting the service outlets/cassettes

Note! *The mounting of the service outlets/cassettes is shown with the example of a service outlet. The other service outlets/cassettes are installed in the same way.*

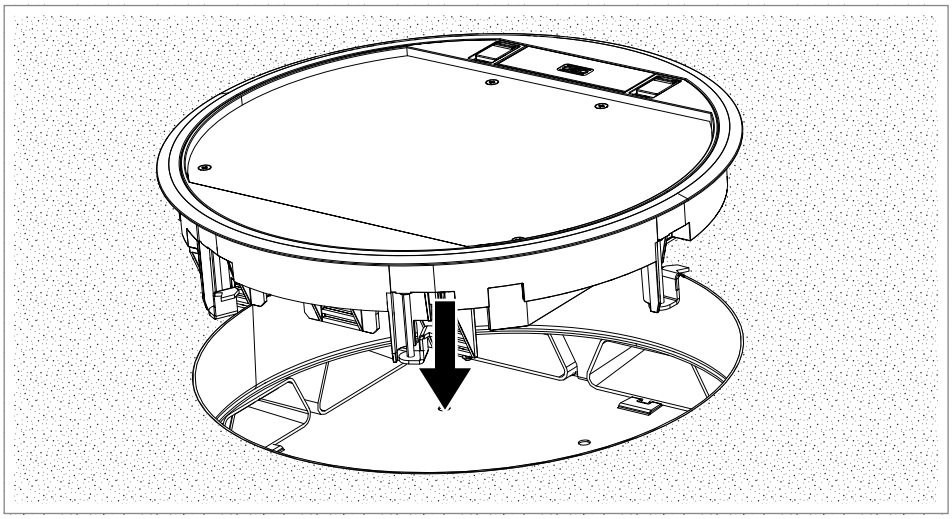


Fig. 23: Mounting the service outlets

1. Mount the service outlets in the underfloor box 2/12.

9 Performing the electrical installation

Note! *The electrical installation is shown using the example of a universal support.*

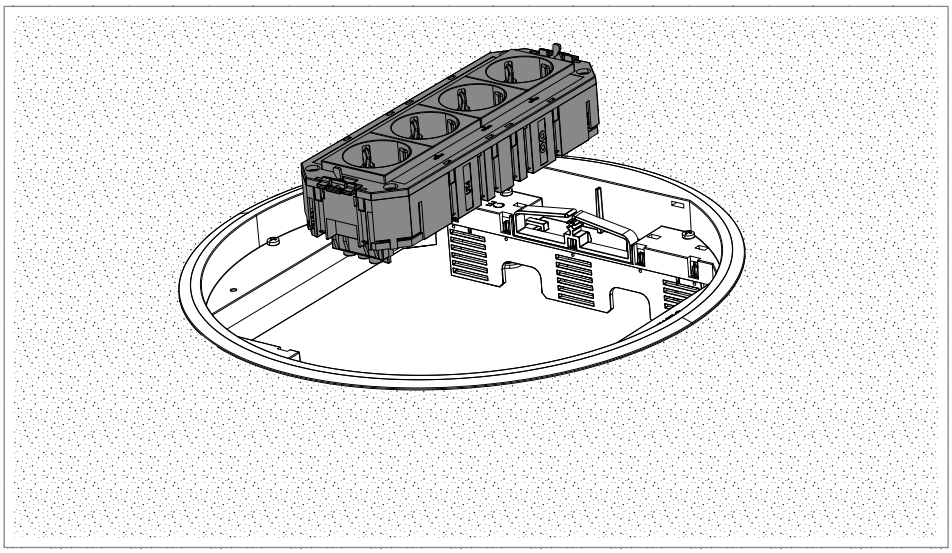


Fig. 24: Performing the electrical installation

1. Perform the electrical installation in the service outlet (according to DIN VDE 100).

10 Maintaining the duct system

ATTENTION

Risk of damage through incorrect/insufficient care!
Insufficient care can lead to product damage! Keep the duct system free from foreign bodies, dirt, dust and moisture.

Note! *When routing certain floor coverings, use a suitable primer in order to guarantee the connection to the socket frame (aluminium and zinc) and to avoid chemical reactions.*

11 Dismantling the duct system

Dismantle the duct system in a similar way to the mounting operation.

12 Disposing of the duct system



Comply with the local waste disposal regulations.

– Electrical components: As electrical waste

– Duct system: As plastic/scrap metal (depending on duct type)

– Packaging: As household waste

13 Technical data

13.1 Components for PVC

13.1.1 Underfloor ducts EÜK-SN for PVC

Item no.	Type	Length	Width	Height	Material
7425900	DU 6025	3,000 mm	60 mm	25 mm	Polyvinylchloride
7425902	DU 9035	3,000 mm	90 mm	35 mm	Polyvinylchloride

Tab. 3: Underfloor ducts EÜK-SN for PVC

13.1.2 Horizontal bend for EÜK-SN

Item no.	Type	Length	Width	Height	Material
7425920	KH DU 6025 90	200 mm	60 mm	25 mm	Polyvinylchloride
7425925	KH DU 9035 90	200 mm	90 mm	35 mm	Polyvinylchloride

Tab. 4: Horizontal bend for EÜK-SN

13.1.3 Vertical bend for EÜK-SN

Item no.	Type	Length	Width	Height	Material
7425935	KV DU 6025 90	200 mm	60 mm	25 mm	Polyvinylchloride

Item no.	Type	Length	Width	Height	Material
7425940	KV DU 9035 90	200 mm	90 mm	35 mm	Polyvinylchloride

Tab. 5: Vertical bend for EÜK-SN

13.1.4 Connection shackle for EÜK-SN

Item no.	Type	Length	Width	Height	Material
7425910	DUC 6025	43 mm	64 mm	29 mm	Polyvinylchloride
7425912	DUC 9035	63 mm	94 mm	39 mm	Polyvinylchloride

Tab. 6: Connection shackle for EÜK-SN

13.1.5 Fastening clamp for EÜK-SN

Item no.	Type	Length	Width	Height	Material
7428340	DC9035	342 mm	30 mm	38 mm	Steel
7428342	DC6025	328 mm	30 mm	28 mm	Steel
7490160	DC1 6025	115 mm	30 mm	28 mm	Steel
7490162	DC2 6025	215 mm	30 mm	28 mm	Steel
7490170	DC1 9035	145 mm	30 mm	38 mm	Steel
7490172	DC2 9035	245 mm	30 mm	38 mm	Steel

Tab. 7: Fastening clamp for EÜK-SN

13.1.6 Underfloor boxes UDSPD for EÜK-SN

Item no.	Type	Length	Width	Height	Material
7400348	UDSPD 9035 4	308 mm	308 mm	92 mm	Steel
7400350	UDSPD 9035 6	308 mm	308 mm	92 mm	Steel
7400352	UDSPD 9035 9	308 mm	308 mm	92 mm	Steel

Tab. 8: Underfloor boxes UDSPD for EÜK-SN

13.1.7 Vertical connection box for PVC

Item no.	Type	Length	Width	Height	Material
7428322	VAB 9035	300 mm	300 mm	35 mm	Steel
7428320	VAB 9035	300 mm	300 mm	35 mm	Steel

Tab. 9: Vertical connection box for PVC

13.2 Components for steel

13.2.1 Underfloor ducts EÜK (2 piece)

Item no.	Type	Length	Width	Height	Material	Number of compartments
7400256	S2 19028-2	2,000 mm	190 mm	28 mm	Steel	2
7400258	S2 19038-2	2,000 mm	190 mm	38 mm	Steel	2
7400261	S2 19048-2	2,000 mm	190 mm	48 mm	Steel	2
7400265	S2 25028-2	2,000 mm	250 mm	28 mm	Steel	2
7400267	S2 25038-2	2,000 mm	250 mm	38 mm	Steel	2
7400269	S2 25048-2	2,000 mm	250 mm	48 mm	Steel	2
7400271	S2 25058-2	2,000 mm	250 mm	58 mm	Steel	2
7400275	S3 25028-2	2,000 mm	250 mm	28 mm	Steel	3
7400279	S3 25038-2	2,000 mm	250 mm	38 mm	Steel	3
7400281	S3 25048-2	2,000 mm	250 mm	48 mm	Steel	3
7400283	S3 25058-2	2,000 mm	250 mm	58 mm	Steel	3
7400287	S3 35028-2	2,000 mm	350 mm	28 mm	Steel	3
7400289	S3 35038-2	2,000 mm	350 mm	38 mm	Steel	3
7400291	S3 35048-2	2,000 mm	350 mm	48 mm	Steel	3
7400293	S3 35058-2	2,000 mm	350 mm	58 mm	Steel	3

Tab. 10: Underfloor ducts EÜK (2 piece)

13.2.2 Connection shackle for EÜK (2 piece)

Item no.	Type	Length	Width	Material
7400988	VL 190-2	263 mm	75 mm	Steel
7400992	VL 250-2	323 mm	75 mm	Steel
7400996	VL 350-2	423 mm	75 mm	Steel

Tab. 11: Connection shackle for EÜK (2 piece)

13.2.3 Vertical bend for EÜK (2 piece)

Item no.	Type	Duct width	Duct height	Material	Number of compartments
7400621	KV2 19028-2	190 mm	28 mm	Steel	Two-compartment
7400623	KV2 19038-2	190 mm	38 mm	Steel	Two-compartment
7400629	KV2 19048-2	190 mm	48 mm	Steel	Two-compartment
7400633	KV2 25028-2	250 mm	28 mm	Steel	Two-compartment
7400637	KV2 25038-2	250 mm	38 mm	Steel	Two-compartment
7400641	KV2 25048-2	250 mm	48 mm	Steel	Two-compartment
7400643	KV2 25058-2	250 mm	58 mm	Steel	Two-compartment

Item no.	Type	Duct width	Duct height	Material	Number of compartments
7400645	KV3 25028-2	250 mm	28 mm	Steel	Three-compartment
7400650	KV3 25038-2	250 mm	38 mm	Steel	Three-compartment
7400653	KV3 25048-2	250 mm	48 mm	Steel	Three-compartment
7400655	KV3 25058-2	250 mm	58 mm	Steel	Three-compartment
7400657	KV3 35028-2	350 mm	28 mm	Steel	Three-compartment
7400662	KV3 35038-2	350 mm	38 mm	Steel	Three-compartment
7400665	KV3 35048-2	350 mm	48 mm	Steel	Three-compartment
7400667	KV3 35058-2	350 mm	58 mm	Steel	Three-compartment

Tab. 12: Vertical bend for EÜK (2 piece)

13.2.4 Underfloor boxes UDSPD for EÜK

Item no.	Type	Length	Width	Height	Material
7400349	UDSSD 25038 4	308 mm	308 mm	92 mm	Steel
7400351	UDSSD 25038 6	308 mm	308 mm	92 mm	Steel
7400353	UDSSD 25038 9	308 mm	308 mm	106 mm	Steel
7400417	UDSSD 35048 9	420 mm	420 mm	51 mm	Steel

Tab. 13: Underfloor boxes UDSPD for EÜK

13.3 Lined bodies for underfloor boxes

13.3.1 Round lined bodies

Item no.	Type	Diameter	Height	Material
7404388	SKE R215	215 mm	50 mm	Polystyrene
7404392	SKE R305	305 mm	55 mm	Polystyrene

Tab. 14: Round lined bodies

13.3.2 Square lined bodies

Item no.	Type	Length	Width	Height	Material
7404394	SKE 201X201	201 mm	201 mm	50 mm	Polystyrene
7404396	SKE 202X254	254 mm	202 mm	50 mm	Polystyrene
7404398	SKE 245X245	280 mm	280 mm	63 mm	Polystyrene

Item no.	Type	Length	Width	Height	Material
7404400	SK HB R215	345 mm	345 mm	51.5 mm	Polystyrene
7404404	SK HB R275	345 mm	345 mm	51.5 mm	Polystyrene
7404408	SK HB R305	345 mm	345 mm	51.5 mm	Polystyrene
7404412	SK HB 245X245	290 mm	290 mm	51.5 mm	Polystyrene
7425600	SK HB 201X201	345 mm	345 mm	51.5 mm	Polystyrene

Tab. 15: Square lined bodies

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