Manual

Floor installation systems

Screed-flush trunking systems

CE

hager

EN

Important note

This manual does not replace any operating and assembly instructions that are also supplied with the products described.
No generally applicable legal obligation shall be derived from the contents of this document.

The contents of this document are based on the currently applicable rules and regulations as well as our own test findings. No generally applicable legal obligation shall be derived from the contents of this document.
This document explains the relevant principles for assembling supply units and installation units and for routing and connecting cables and wires in these systems.

2 Introduction

2.1 Document content

This document provides information on how to plan, install/commission the Hager screed-flush trunking system and how to hand it over to the customer. It also provides tips and tricks for installation.

Read the product-specific installation instructions for information on the installation and assembly of the devices in question.

The illustrations and descriptions in this manual are for clarification purposes only and may differ from the actual state of the devices due to regular improvements being made.

For general information on screed-flush trunking systems, see

► *See website* www.hager.de/estrichbuendige-kanalsysteme

2.2 Symbols used

- Single-step instruction or any sequence.

1. Multi-step instruction. Sequence must be maintained.

– List

▸ Reference to additional documents/information

	Installation only by a qualified electrician		Installation only by a person with electrical training		For further information, refer to the installation and commissioning instructions
CE	Suitable for use throughout Europe and Switzerland		Manufacturer's information is in accordance with § 18 Para. 4 of the German Electrical and Electronic Equipment Act		

2.3 Target groups

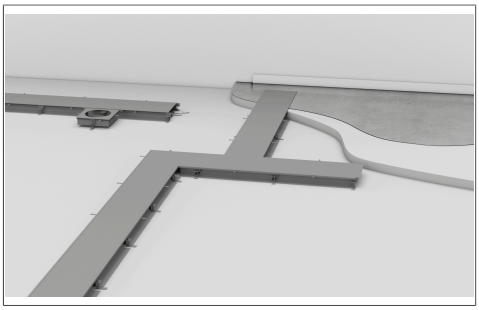
Attention

Screed-flush trunking systems may only be assembled, installed and configured by a specialist with electrical training and certification in accordance with the relevant installation standards of the country. The accident prevention regulations valid in the appropriate countries must be complied with.

This document is intended for planners, architects and installers of the Hager screed-flush trunking system. The installation must only be carried out by a qualified electrician or a person with technical training. All relevant standards and regulations that are required for installation must be known and applied.

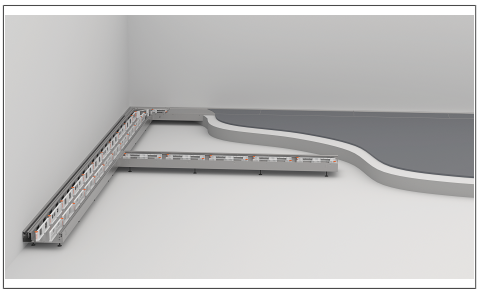
2.4 System overview

Screed-flush trunking system electraplan.BK



This height-variable system is used anywhere where it is not clear how the ‘final installation’ will be and/or the highest level of flexibility is desired. Trunking widths of up to 600 mm allow the trunking to be used wherever high volumes of cables occur. The blank design of the screed-flush trunking is used in production halls and in office and administration buildings. Its very low height means that the trunking is also suitable for very flat screed heights of 45 mm or more.

Screed-flush trunking system tehalit. BKB/BKG



The floor trunking tehalit.BKB/BKG makes energy, data and communication connections available around the room. Besides its adaptability to state-of-the-art technology, it is also open to any form of interior design: It can be used with all kinds of dry cleaned floors. Here, the height adjustment, which is accurate to the millimetre, can offer a ‘smooth’ finish — whilst the comprehensive range of fittings adapts exactly to any angle.

	Floor trunking system tehalit.BKB/BKG		**Screed-flush trunking system electraplan.BKF/BKW**	
Differences	Irrespective of the surrounding screed → perimeter insulating strips are necessary		Depending on the surrounding screed (maintains its stability through the screed) → **NO** edge insulation strip is necessary, clean processing of the screed	
	Device installation in the trunking		Device installation via installation units	
	Wall installation: BKB system		Trunking system can be completely invisible	
	In-room installation: BKG system		In-room installation	
	End-user access at any point in the trunking		Only the installation units are accessible to the end customer	
Installation space				
Trunking width (mm)	BKG ▶ 200 ▶ 300 ▶ 400 ▶ 500	BKB ▶ 300	▶ 200 ▶ 300 ▶ 400 ▶ 600	
Trunking height (mm)	BKG ▶ 60 ▶ 80	BKB ▶ 80	BKF ▶ 45-190	BKW ▶ 48 ▶ 58 ▶ 68 ▶ 78
Height adjustment range (mm)	69-247		BKF ▶ 45-190	BKW ▶ 48-130

Table 1: Comparison of trunking systems: tehalit.BKB/BKG — electraplan.BKF/BKW

3 Screed-flush trunking systems

tehalit.BKB | tehalit.BKG

The screed-flush trunking systems tehalit.BKB and tehalit.BKG are trunking systems in which the devices can be installed directly in the trunking at any desired location. The trunking system tehalit.BKB is installed along walls or glass façades with a continuous brush outlet, and the tehalit.BKG trunking system is installed into the room with cable outlet points. A combination of both systems is also possible without any increased effort. Floor socket outlets (BSR02) or UD-ZuHause floor sockets can be connected using installation tubes.

Fig. 1: tehalit.BKG

Fig. 2: tehalit.BKB

3.1 System description

3.1.1 System overview BKG

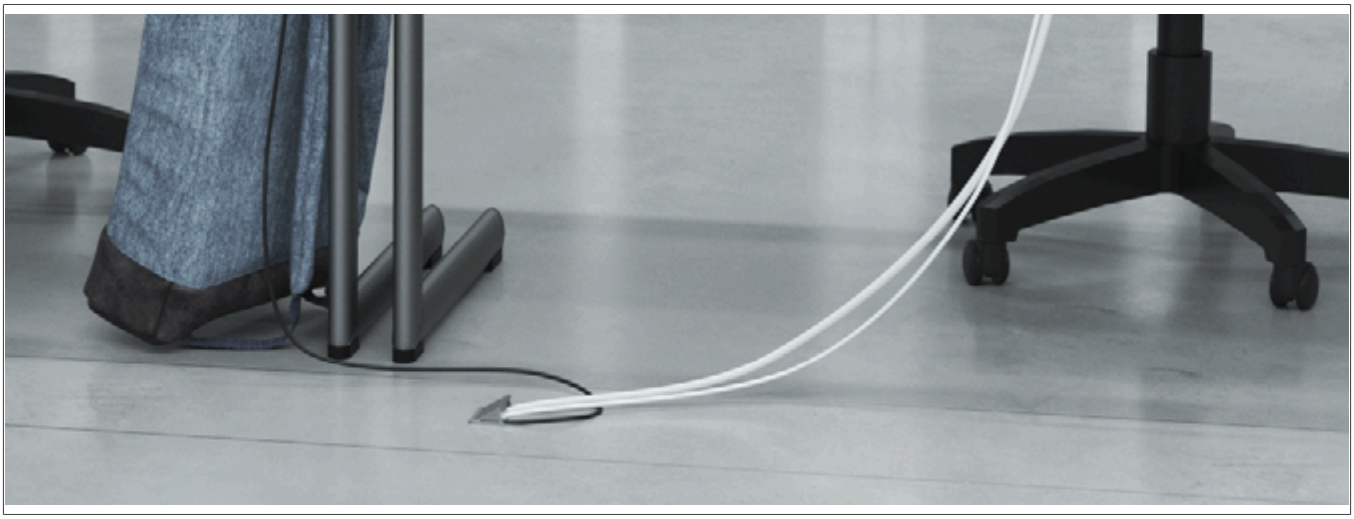


Fig. 3: Application of tehalit.BKG

Solution for the room

The floor trunking tehalit BKG offers plenty of space, great flexibility and a cable outlet with rocker. Device installation is just as easy as retrofitting installation cables. Our floor trunking can be used with all types of dry cleaned floors, while the height adjustment, which is accurate to the millimetre, ensures a perfect finish.

3.1.2 System overview BKB

Fig. 4: Application of tehalit.BKB

Solution for the wall area

The tehalit.BKB floor trunking impresses with all the advantages of the tehalit.BKG, but additionally provides power, data and communication connections via a continuous, concealable brush strip. The floor trunking can easily withstand spot loads of up to 150 kg — meaning that you can push heavy pieces of furniture right up to the wall.

4 Installation principle

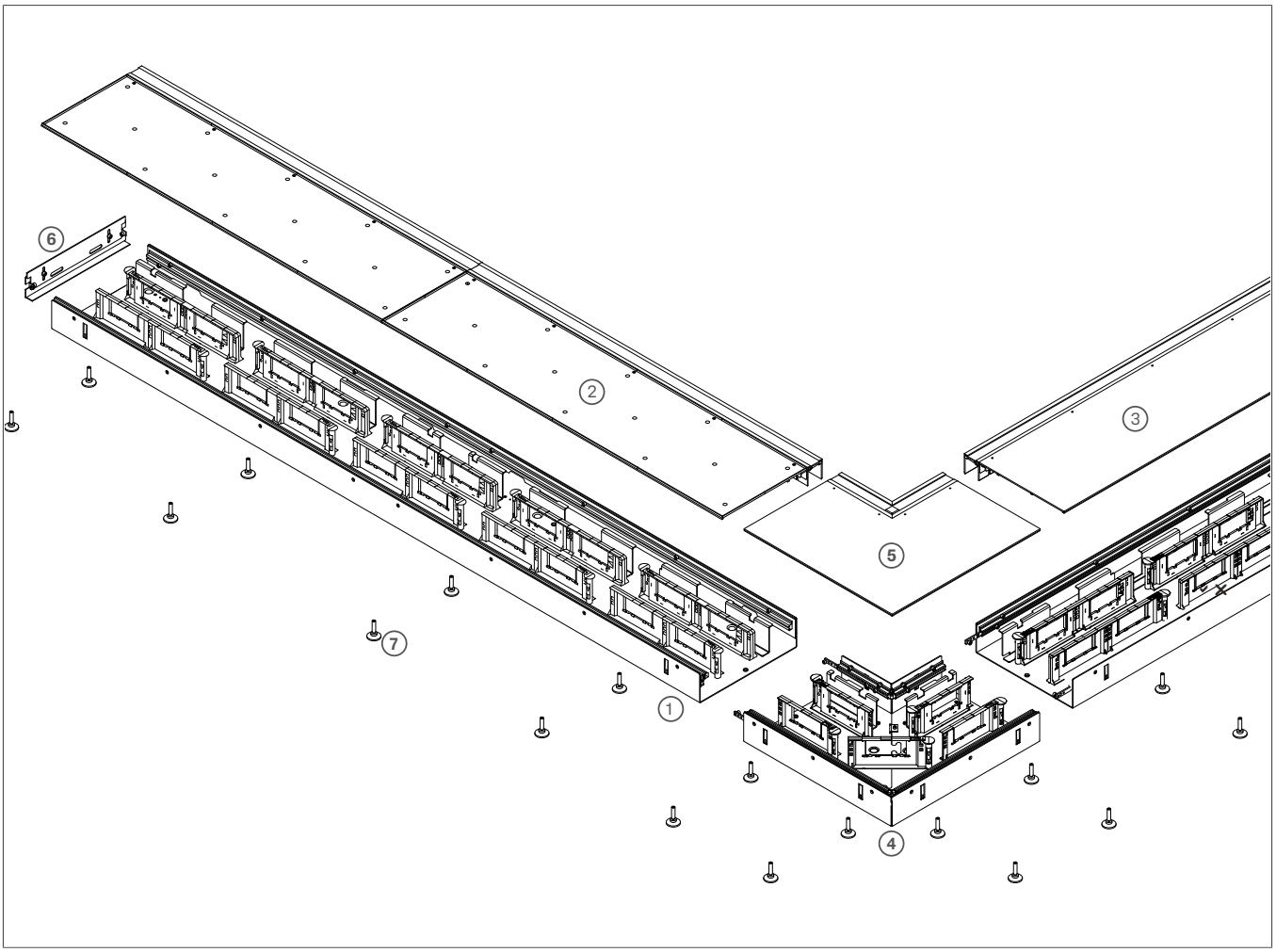


Fig. 5: BKB installation principle along a wall

1. BKB trunking base
2. BKB tray cover with concealable brush strip
3. BKB cover with concealable brush strip
4. BKB horizontal flat angle base external corner with concealable brush strip
5. BKB horizontal flat angle external corner
6. BKG/BKB end piece
7. BKG/BKB levelling screws

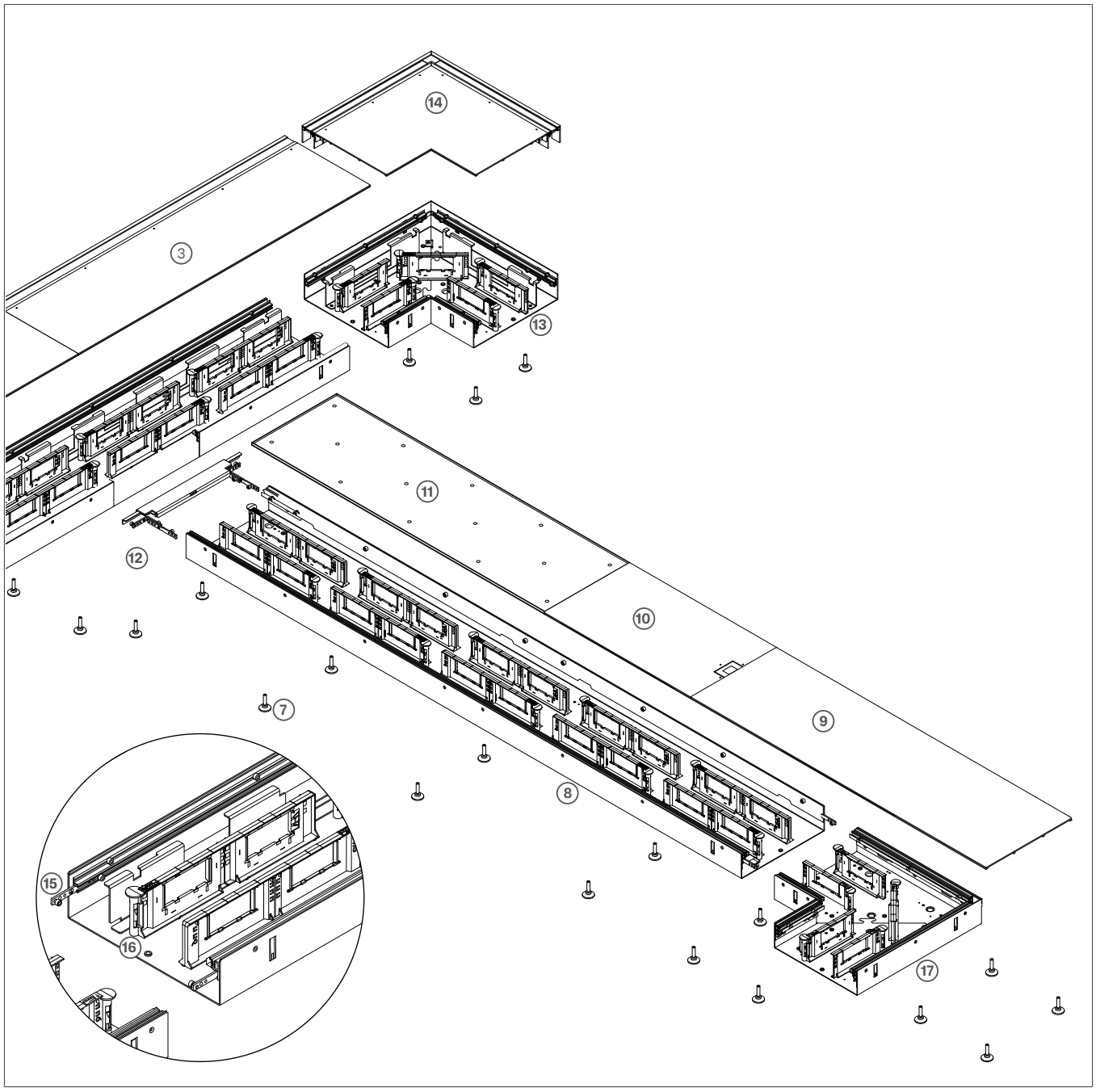


Fig. 6: BKG connected to BKB installation mode

3 BKB cover with concealable brush strip
7 BKG/BKB levelling screws
8 BKG trunking base
9 BKG closed cover
10 BKG cover with cable outlet
11 BKG closed tray cover
12 BKG/BKB adapter for T-fitting
13 BKB horizontal flat angle base internal corner
14 BKB horizontal flat angle cover internal corner with concealable brush strip
15 BKG/BKB trunking connector
16 BKG/BKB device casing
17 BKG horizontal flat angle base

5 Options

	Floor trunking tehalit.BKG	Floor trunking tehalit.BKB
		
Height	60, 80 mm	80 mm
Width	200[1] , 300, 400, 500 mm	300 mm
Length of trunking base	2000 mm	2000 mm
Length of blind cover	1000 mm	1000 mm
Length of cover with cable outlet	500 mm	
Minimum floor installation height	69, 89 mm	89 mm
Carrying capacity	3000 N/5000 N (13 mm/130 mm punch diameter)	
Application range	Dry cleaned floor coverings up to 25 mm	
Tray cover	3-mm floor covering recess (others can be manufactured)	
Outlet	Closed cover or cable outlet (max. 6 cables of 3 x 1.5 mm^2)	Continuous brush strip (can be covered if necessary)
Test standard	DIN EN 50085-1, 50085-2-2	

Table 2: Selection options for floor trunking BKG/BKB

1 Size 200 mm x 80 mm on request.

Floor trunking tehalit.BKG		Floor trunking tehalit.BKB	
Blind cover	BKG2002BL BKG3002BL BKG4002BL BKG5002BL	Cover with brush	BKB3002
Cover with cable outlet	BKG2002LA BKG3002LA BKG4002LA BKG5002LA	Tray cover 3 mm with brush	BKB3002W3
Closed tray cover 3 mm	BKG2002W3 BKG3002W3 BKG4002W3 BKG5002W3		
Tray cover 3 mm with cable outlet	BKG2002W3LA BKG3002W3LA BKG4002W3LA BKG5002W3LA		

Table 3: Cover variants

6 Installation and system dimensions

The optimum nominal dimensions of the floor trunking must be determined taking into account the floor structure, the installation units for current and data and the number of cables. Taking into account the floor structure and the required usable cross-sections, the optimum nominal dimensions can be determined.

6.1 Dimensions of floor trunking base

Dimensions of floor trunking with brush BKB300x

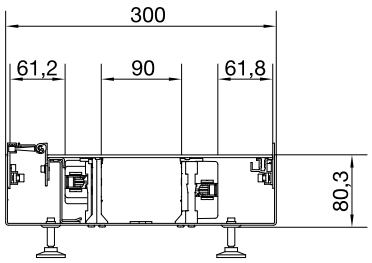


Fig. 7: Dimensions of BKBD300801

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Floor trunking with brush	300 x 80 mm	3-compartment	Sheet steel	2 m	22.6 kg	BKBD300801

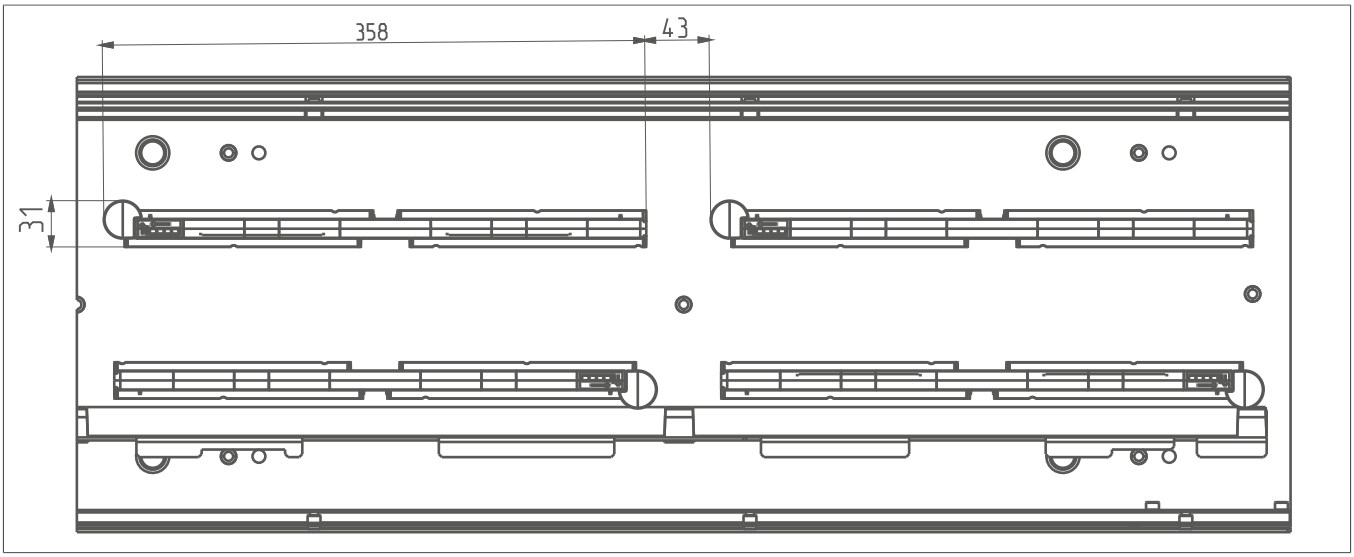


Fig. 8: Top view BKBD300801

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking with brush	300 x 80 mm	10	2	Symmetrical	BKBD300801

Dimensions of floor trunking closed BKG200x

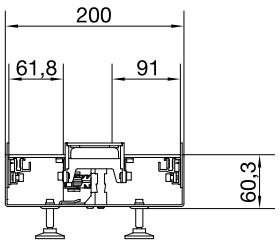


Fig. 9: Dimensions of BKGD200601

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Floor trunking closed	200 x 60 mm	2-compartment	Sheet steel	2 m	16.3 kg	BKGD200601

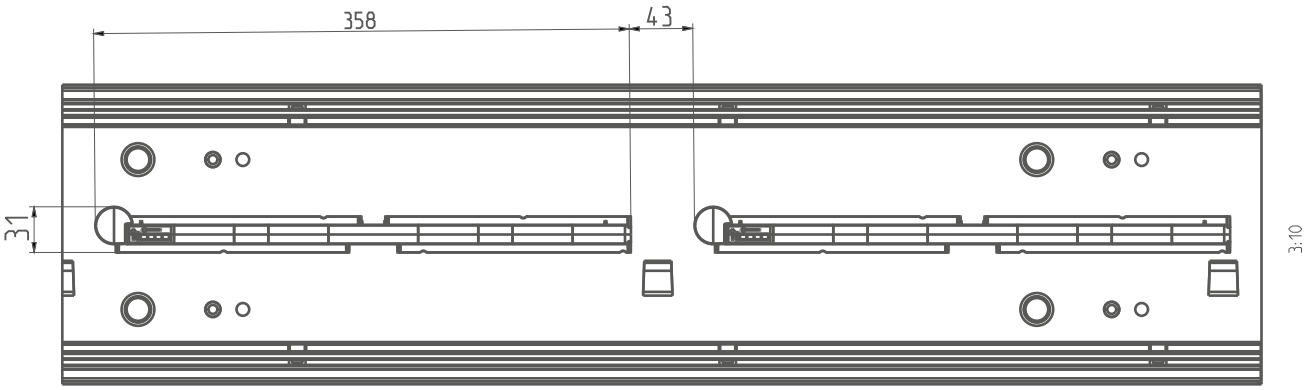


Fig. 10: Top view BKGD200601

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking closed	200 x 60 mm	5	1	Symmetrical	BKGD200601

Dimensions of floor trunking closed BKG300x

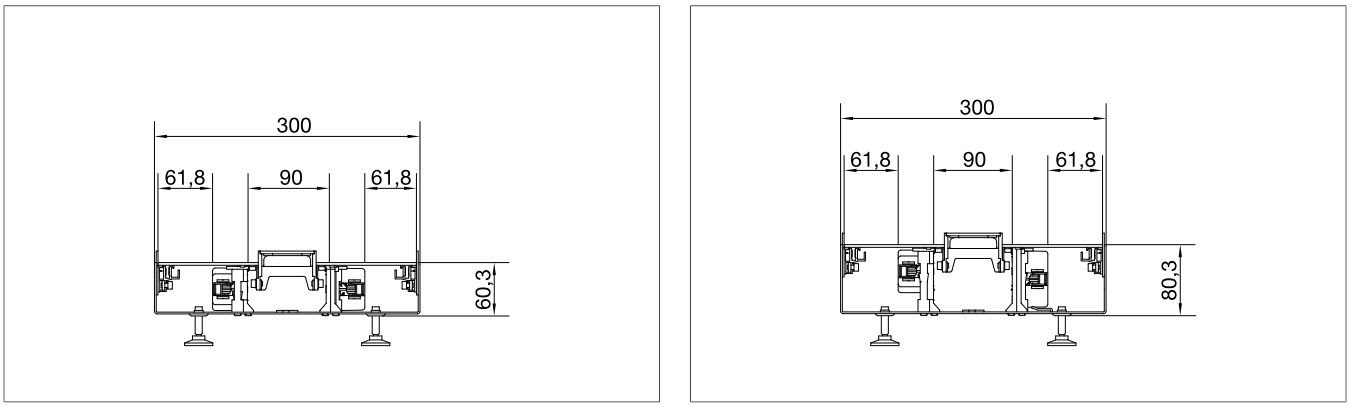


Fig. 11: Dimensions of BKGD300801

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Floor trunking closed	300 x 60 mm	3-compartment	Sheet steel	2 m	18 kg	BKGD300601
Floor trunking closed	300 x 80 mm	3-compartment	Sheet steel	2 m	21.9 kg	BKGD300801

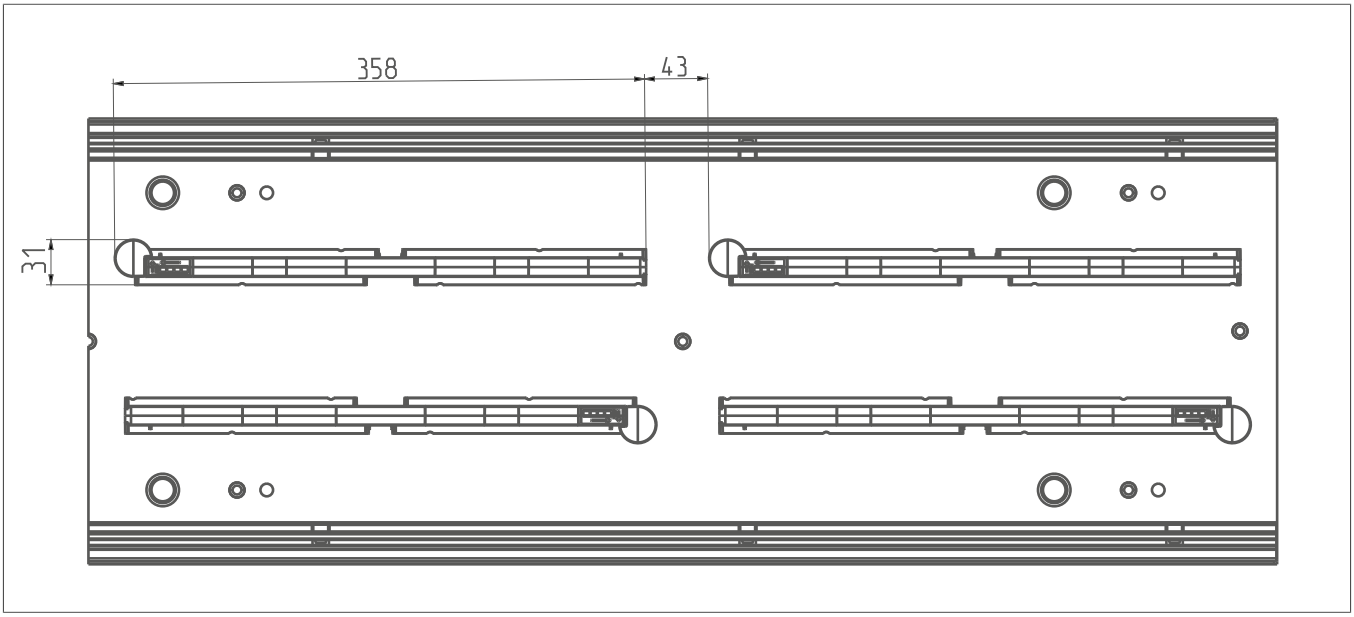


Fig. 12: Top view BKGD300601

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking closed	300 x 60 mm	10	2	Symmetrical	BKGD300601
Floor trunking closed	300 x 80 mm	10	2	Symmetrical	BKGD300801

Dimensions of floor trunking closed BKG400x

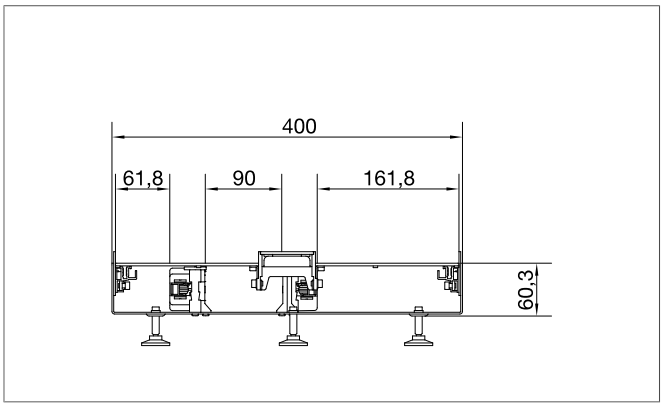


Fig. 13: Dimensions of BKGD400601

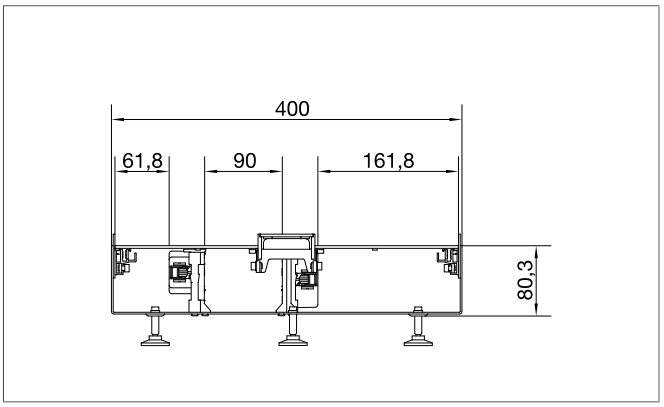


Fig. 14: Dimensions of BKGD400801

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Floor trunking closed	400 x 60 mm	3-compartment	Sheet steel	2 m	18 kg	BKGD400601
Floor trunking closed	400 x 80 mm	3-compartment	Sheet steel	2 m	21.9 kg	BKGD400801

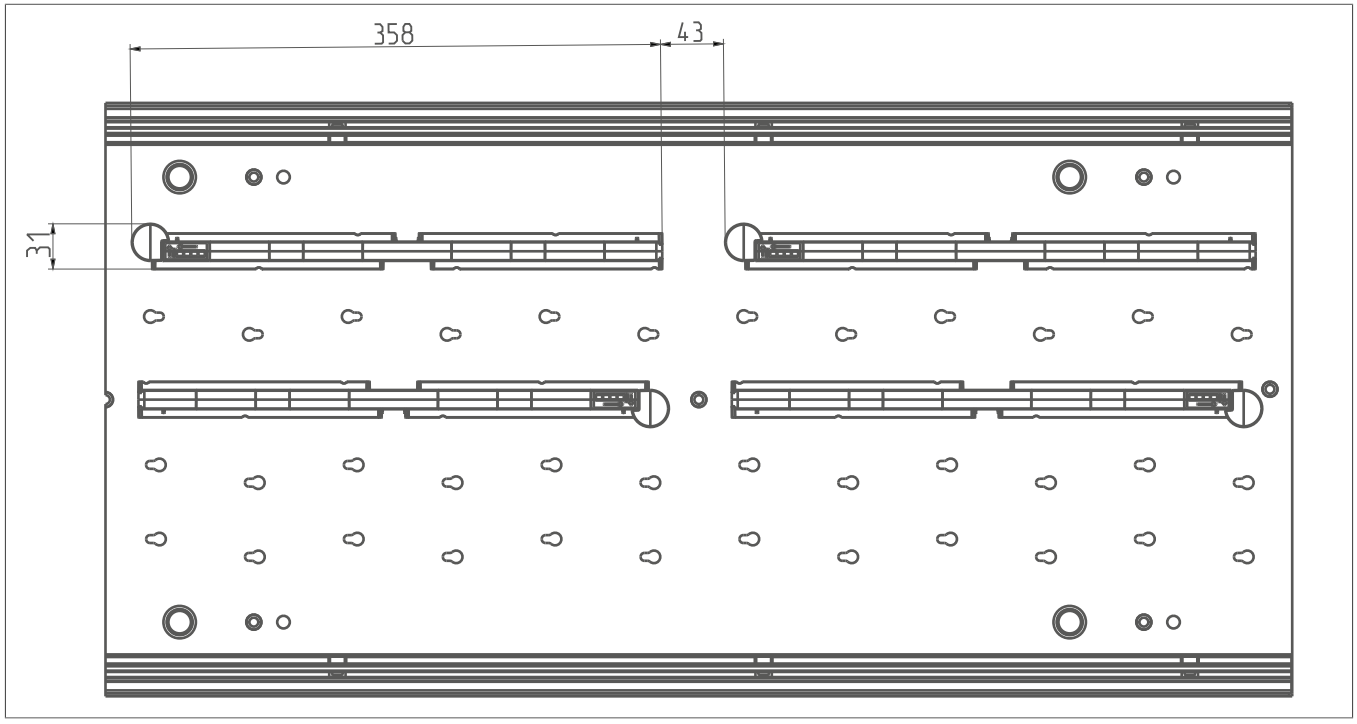


Fig. 15: Top view BKGD400601

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking closed	400 x 60 mm	10	2	Symmetrical	BKGD400601

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking closed	400 x 80 mm	10	2	Symmetrical	BKGD400801

Dimensions of floor trunking closed BKG500x

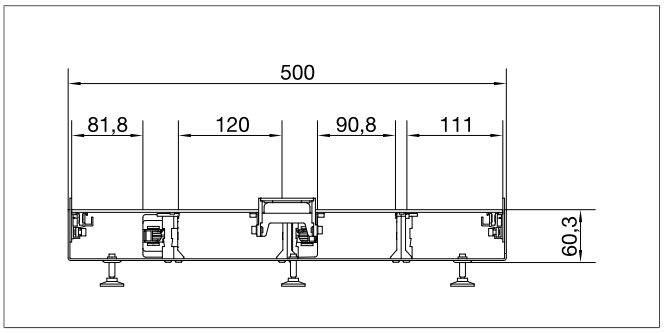


Fig. 16: Dimensions of BKGD500601

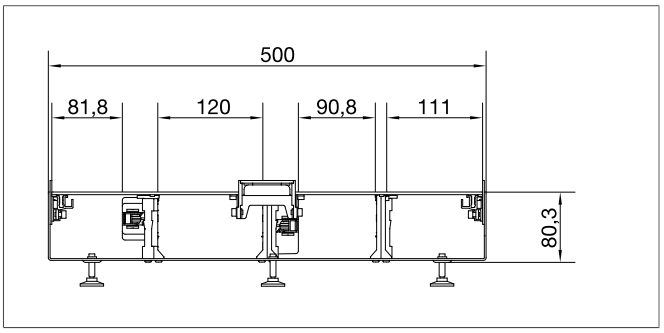


Fig. 17: Dimensions of BKGD500801

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Floor trunking closed	500 x 60 mm	3-compartment	Sheet steel	2 m	18 kg	BKGD500601
Floor trunking closed	500 x 80 mm	3-compartment	Sheet steel	2 m	21.9 kg	BKGD500801

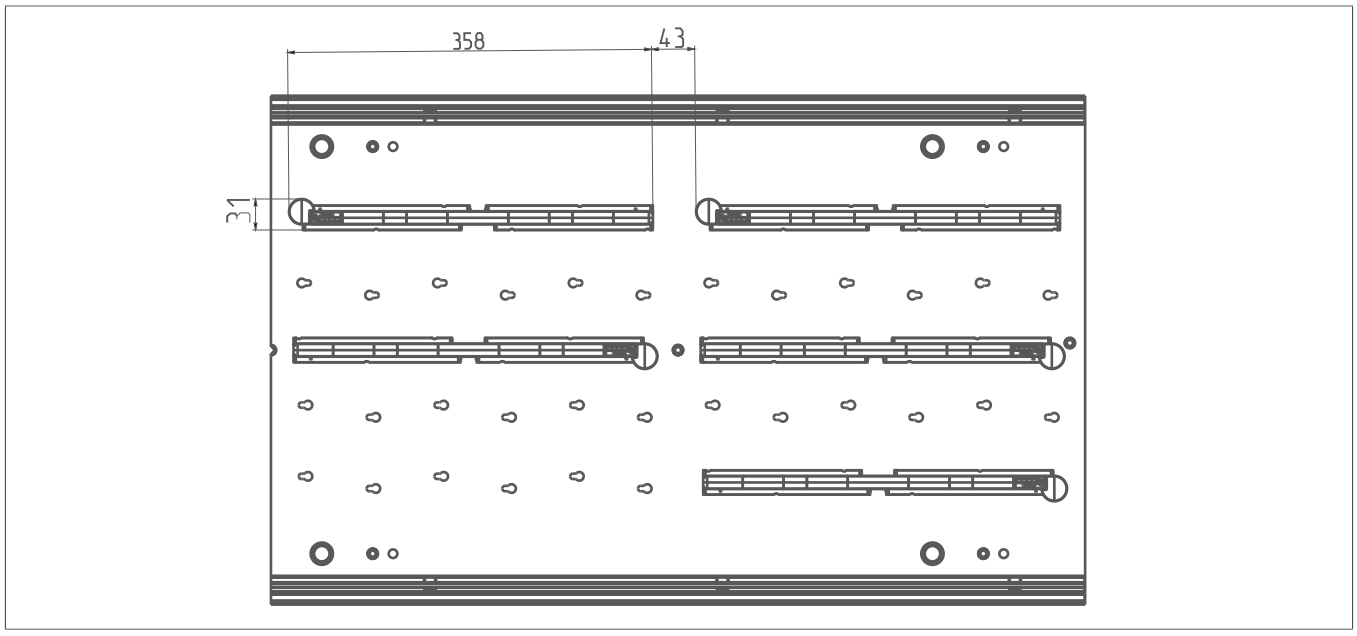


Fig. 18: Top view BKGD500601

Designation	Nominal dimension	Number of device casing	Number of tracks with device casing	Distribution	Order No.
Floor trunking closed	500 x 60 mm	13	3	Asymmetrical	BKGD500601
Floor trunking closed	500 x 80 mm	13	3	Asymmetrical	BKGD500801

6.2 Dimensions of horizontal flat angle

Dimensions of horizontal flat angle floor trunking with brush BKB300x

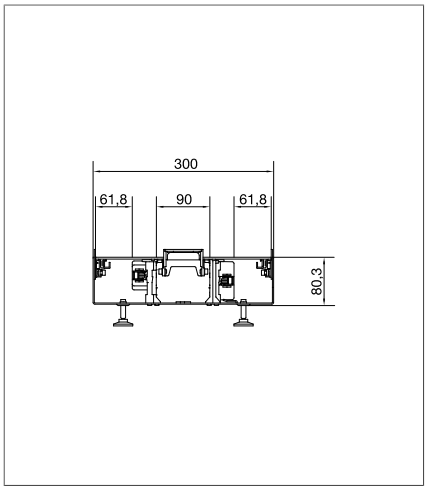


Fig. 19: Side view

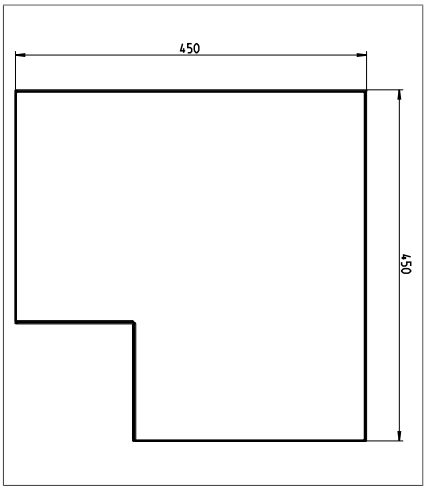


Fig. 20: Horizontal flat angle internal corner BKB

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Horizontal flat angle external corner BKB	300 x 80 mm	3-compartment	Sheet steel	450 cm	7.1 kg	BKBD30080531
Horizontal flat angle internal corner BKB	300 x 80 mm	3-compartment	Sheet steel	450 cm	7.1 kg	BKBD30080541

Dimensions of horizontal flat angle floor trunking closed BKG200x

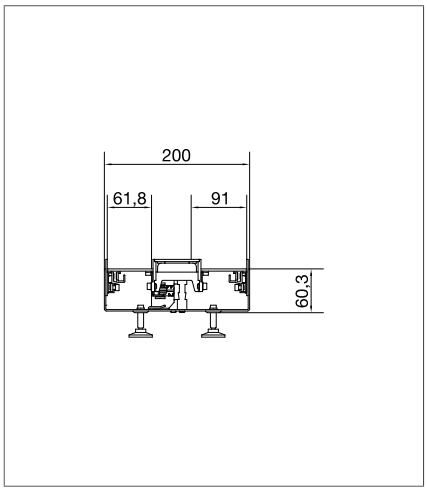


Fig. 21: Side view

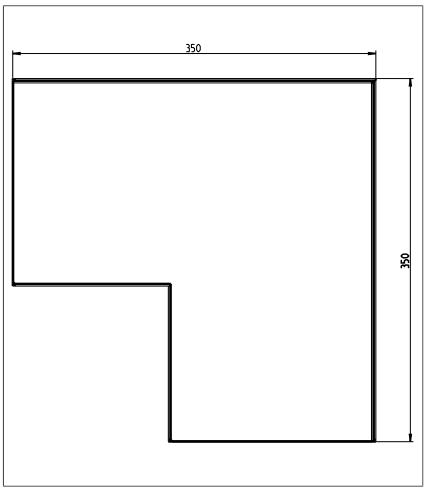


Fig. 22: Horizontal flat angle internal corner BKG

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Horizontal flat angle base BKG	200 x 60 mm	2-compartment	Sheet steel	450 cm	4.1 kg	BKGD2006051

Dimensions of horizontal flat angle floor trunking closed BKG300x

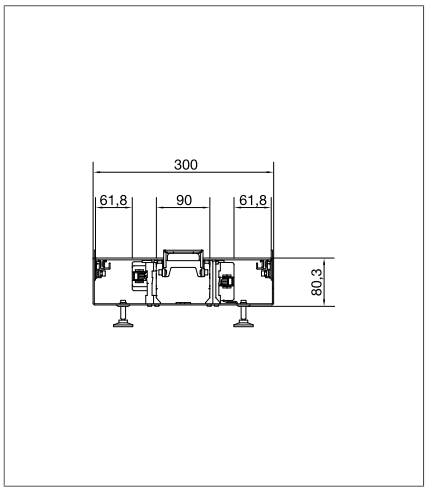


Fig. 23: Side view

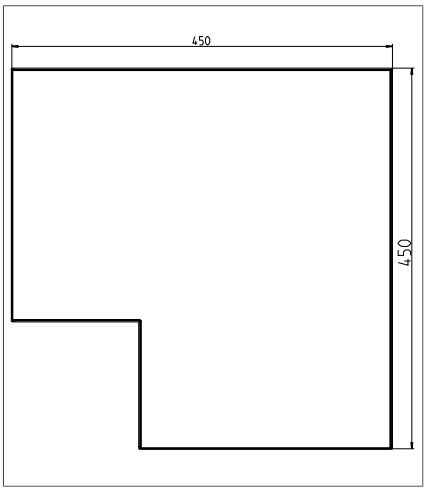


Fig. 24: Horizontal flat angle internal corner BKG

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Horizontal flat angle base BKG	300 x 60 mm	3-compartment	Sheet steel	450 cm	6.3 kg	BKGD3006051
Horizontal flat angle base BKG	300 x 80 mm	3-compartment	Sheet steel	450 cm	6.8 kg	BKGD3008051

Dimensions of horizontal flat angle floor trunking closed BKG400x

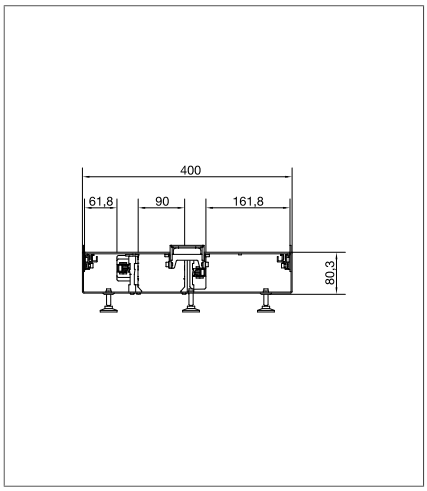


Fig. 25: Side view

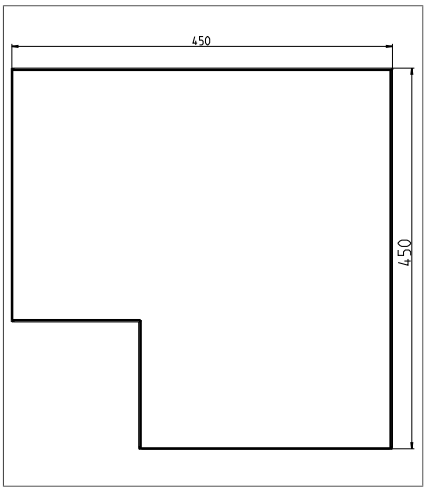


Fig. 26: Horizontal flat angle internal corner BKG

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Horizontal flat angle base BKG	400 x 60 mm	3-compartment	Sheet steel	450 cm	6.3 kg	BKGD4006051
Horizontal flat angle base BKG	400 x 80 mm	3-compartment	Sheet steel	450 cm	6.8 kg	BKGD4008051

Dimensions of horizontal flat angle floor trunking closed BKG500x

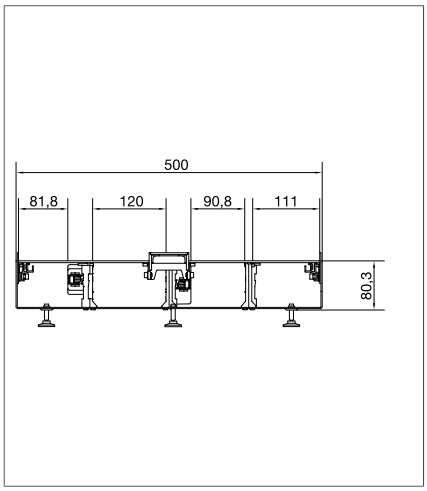


Fig. 27: Side view

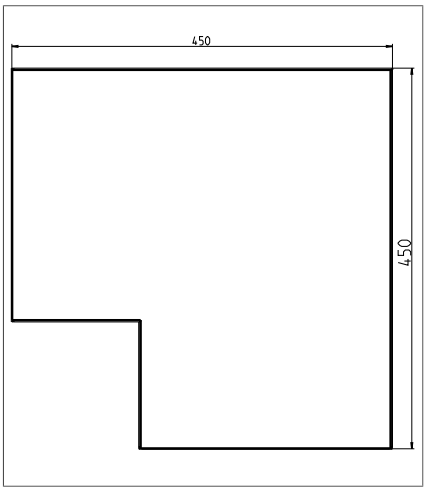


Fig. 28: Horizontal flat angle internal corner BKG

Designation	Nominal dimension	Version	Material	Length	Weight	Order No.
Horizontal flat angle base BKG	500 x 60 mm	3-compartment	Sheet steel	450 cm	6.3 kg	BKGD5006051
Horizontal flat angle base BKG	500 x 80 mm	3-compartment	Sheet steel	450 cm	6.8 kg	BKGD5008051

6.3 Dimensions of the device casing

Dimensions of the device casing height 60 mm

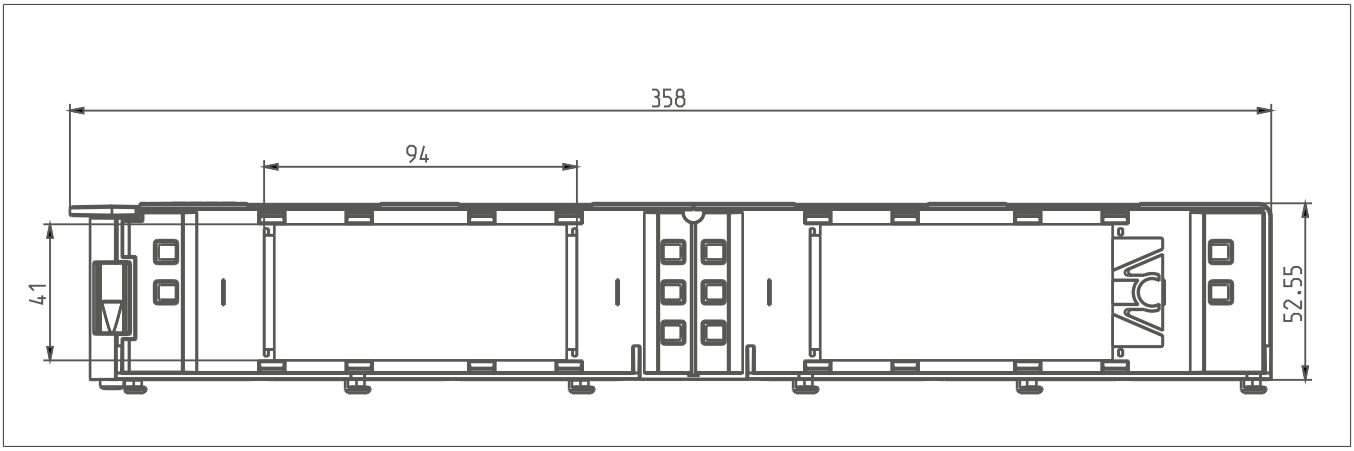


Fig. 29: Dimensions of the device casing 60 mm

Designation	Material	Height	Weight	Order No.
Device casing for 1-gang socket	Polyamide	60 mm	89 g	BKGGT60

Dimensions of the device casing height 80 mm

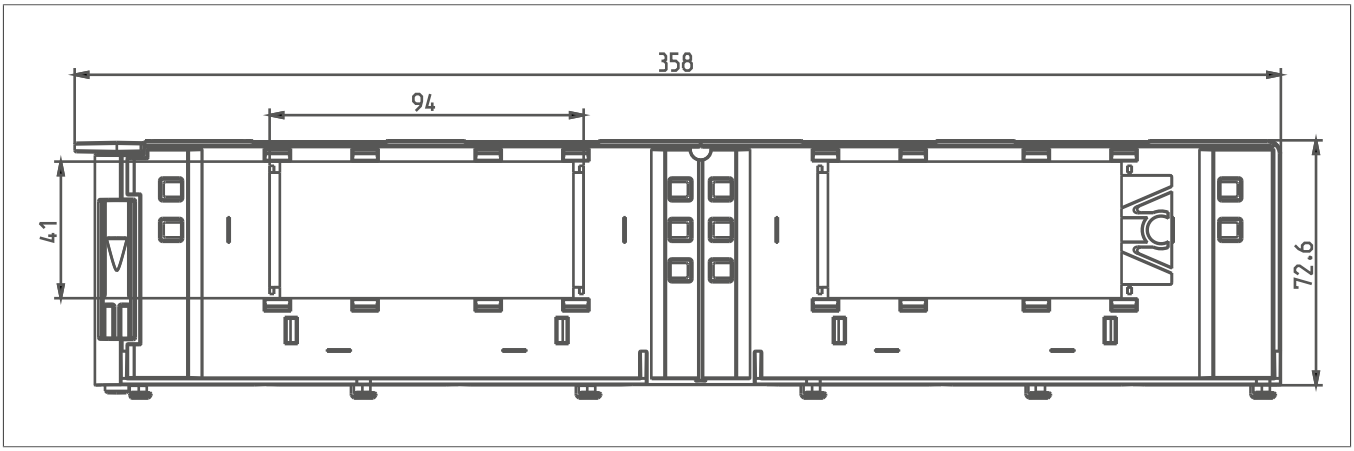


Fig. 30: Dimensions of the device casing 80 mm

Designation	Material	Height	Weight	Order No.
Device casing for 1-gang socket	Polyamide	80 mm	110 g	BKGGT80

7 Levelling set with floor structure

The levelling sets are suitable for raising the screed-flush floor trunking. The levelling pins have M8 thread dimensions and are available in different lengths.

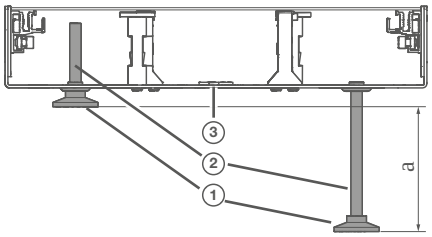


Fig. 31: Maximum levelling height (a)

① Adjustment base of the levelling set
② Levelling pin M8
③ BKB/BKG floor trunking

Levelling set	BKBNSD35	BKBNSD60	BKBNSD80	BKBNSD100	BKBNSD120	BKBNSD160
Length of levelling pin ②	35	58	80	100	120	160
Height of the adjustment base ①	13	13	13	13	13	13
Levelling area of the levelling pins	31	54	76	96	116	156
Max. levelling range of the screw (Fig. 31, a)	44	67	89	109	129	169
Minimum height of the trunking with levelling set	71	71	96	116	136	176
Maximum height of the trunking with levelling set	102	125	147	167	187	227

Table 4: Trunking system BKG*60

Levelling screws	BKBNSD35	BKBNSD60	BKBNSD80	BKBNSD100	BKBNSD120	BKBNSD160
Length of levelling pin ②	35	58	80	100	120	160
Height of the adjustment base ①	13	13	13	13	13	13
Levelling area of the levelling pins	31	54	76	96	116	156
Max. levelling range of the screw	44	67	89	109	129	169
Max. levelling range of the screw (Fig. 31, a)	91	91	96	116	136	176
Maximum height of the trunking with levelling set	122	145	167	187	207	247

Table 5: Trunking system BKB*80 and BKG*80

Number of levelling screws per metre of floor trunking

Floor trunking	Width of trunking	Height of trunking	BKBNSDXX
BKGD 20060	200	60	4
BKGD 30060	300	60	4
BKGD 40060	400	60	7
BKGD 50060	500	60	7
BKGD 30080	300	80	4
BKGD 40080	400	80	7
BKGD 50080	500	80	7
BKBD 30080	300	80	4

Table 6: Number of levelling screws per metre of trunking

8 Cable routing

Determining the trunking volume is the basis for preparing cable routing. The usable cross-section refers to 100% of the usable interior space for each trunking strip. At the maximum cable assignment, a filling level of 50% is assumed to enable retrofitting. The levelling pin lengths in the trunking strips are not taken into account in the specifications.

The installation of sockets and data technology reduces the cross-section and the number of cables to be routed.

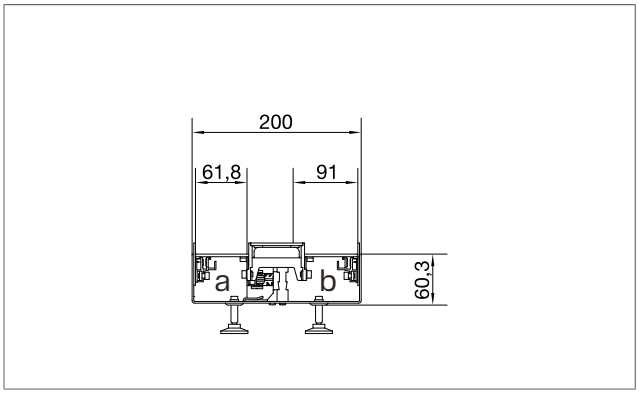


Fig. 32: BKGD200601

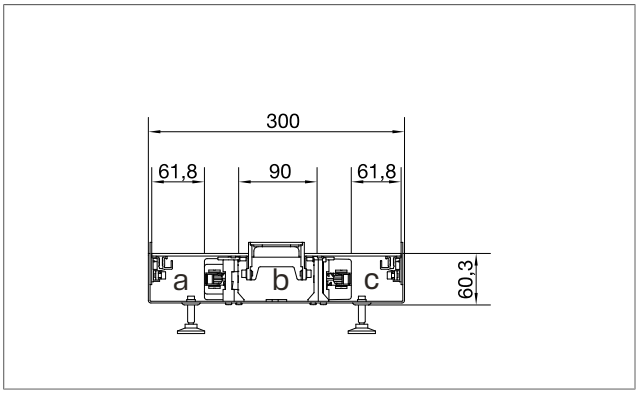


Fig. 33: BKGD300601

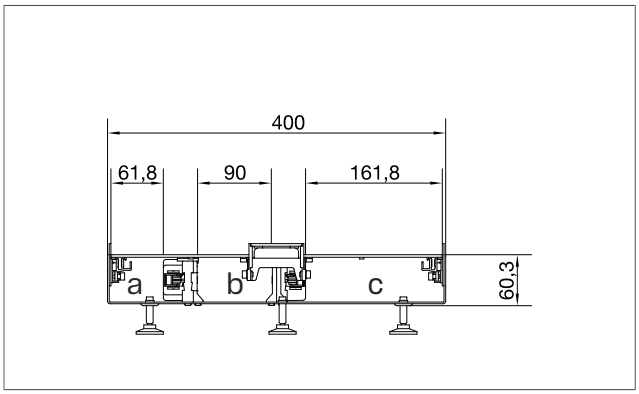


Fig. 34: BKGD400601

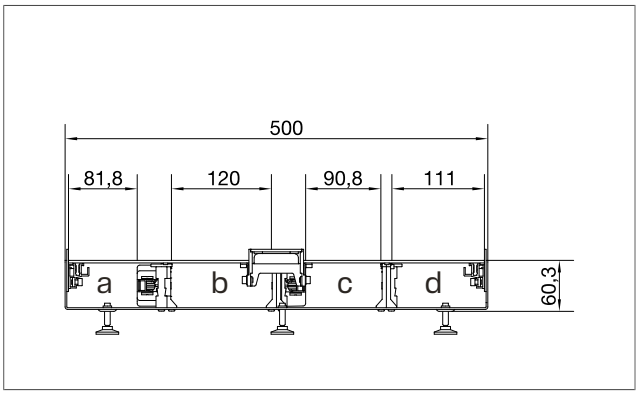


Fig. 35: BKGD500601

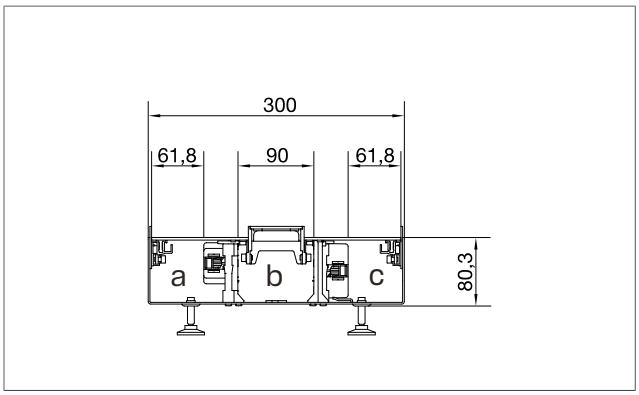


Fig. 36: BKGD300801

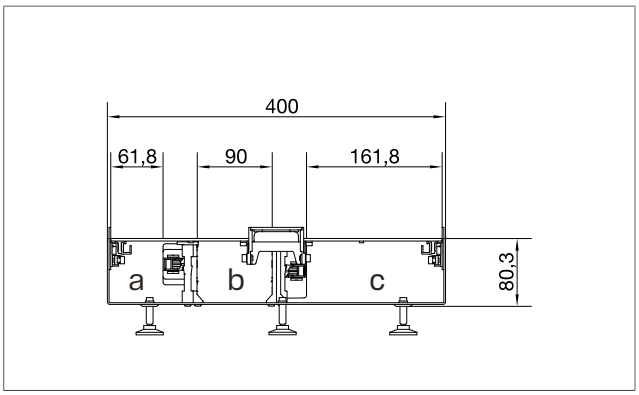


Fig. 37: BKGD400801

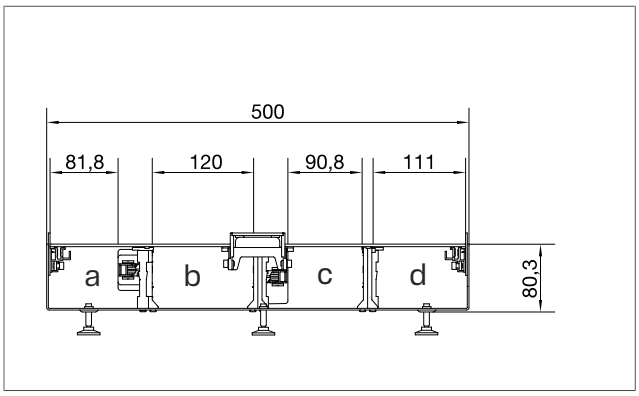


Fig. 38: BKGD500801

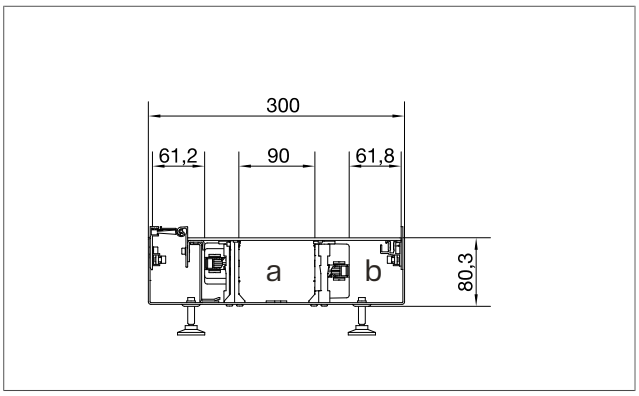


Fig. 39: BKBD300801

The following table assists with preparing cable routing in the BKB/BKG trunking systems and shows the recommended cable quantities. A reserve of 50% for subsequent extensions has already been taken into account. The table also shows the number of cables with device installation units.

Trunking properties			BKG 200 x 60	BKG 300 x 60	BKG 400 x 60	BKG 500 x 60	BKG/BKB 300 x 80	BKG 400 x 80	BKG 500 x 80
Dimensions of strips [mm] without device installation		a	83.5	83.5	73.5	103.5	83.5	73.5	103.5
		b	91	90	100	120	90	100	120
		c	-	83.5	183.5	112.5	83.5	183.5	112.5
		d	-	-	-	103.5	-	-	103.5
Dimensions of strips [mm] with device installation		a	50.1	61.8	51.8	81.8	61.8	51.8	81.8
		b	54.6	90	100	120	90	100	120
		c	-	61.8	161.8	90.8	61.8	161.8	90.8
		d	-	-	-	103.5	-	-	103.5
Usable cross-section Ø cm^2		a	50.1	50.1	44.1	62.1	66.8	58.8	82.8
		b	54.6	54	60	72	72	80	96
		c	-	50.1	110.1	67.5	66.8	146.8	90
		d	-	-	-	62.1	-	-	82.8
Max. cable routingØ 11 mm (filling level 50%)	Without device installation	a	15	13	11	18	21	19	27
		b	15	19	22	26	26	30	38
		c	-	13	37	25	21	54	35
		d	-	-	-	18	-	-	27
	With device installation	a	8	8	6	13	14	14	22
		b	-	-	-	-	-	-	-
		c	--	8	31	19	14	46	28
		d	-	-	-	18	-	-	27

Table 7: Cable routing and trunking properties

9 Installation

9.1 Installation in a new building

During the planning stage for implementing a trunking system the floor plan is approved and available. In addition, a rough plan of future room layout and usage and the required network and energy infrastructure is available.

During the planning phase, the following points must be taken into account:

- Where should the installation take place?
  - On the wall? → Use the BKB trunking
  - In the room, on door thresholds? → Use the BKG trunking
- How high is the maximum floor structure?
  - The thickness of the insulation layer and screed define the maximum trunking height.
- Cable routing
  - The number and type of cables define the required trunking width.

During the build-out phase, the floor trunking is installed. The following items should be completed:

- Bottom plate is cast
- Walls are in place and are plastered

Installing BKB

☑ The metre level is indicated.

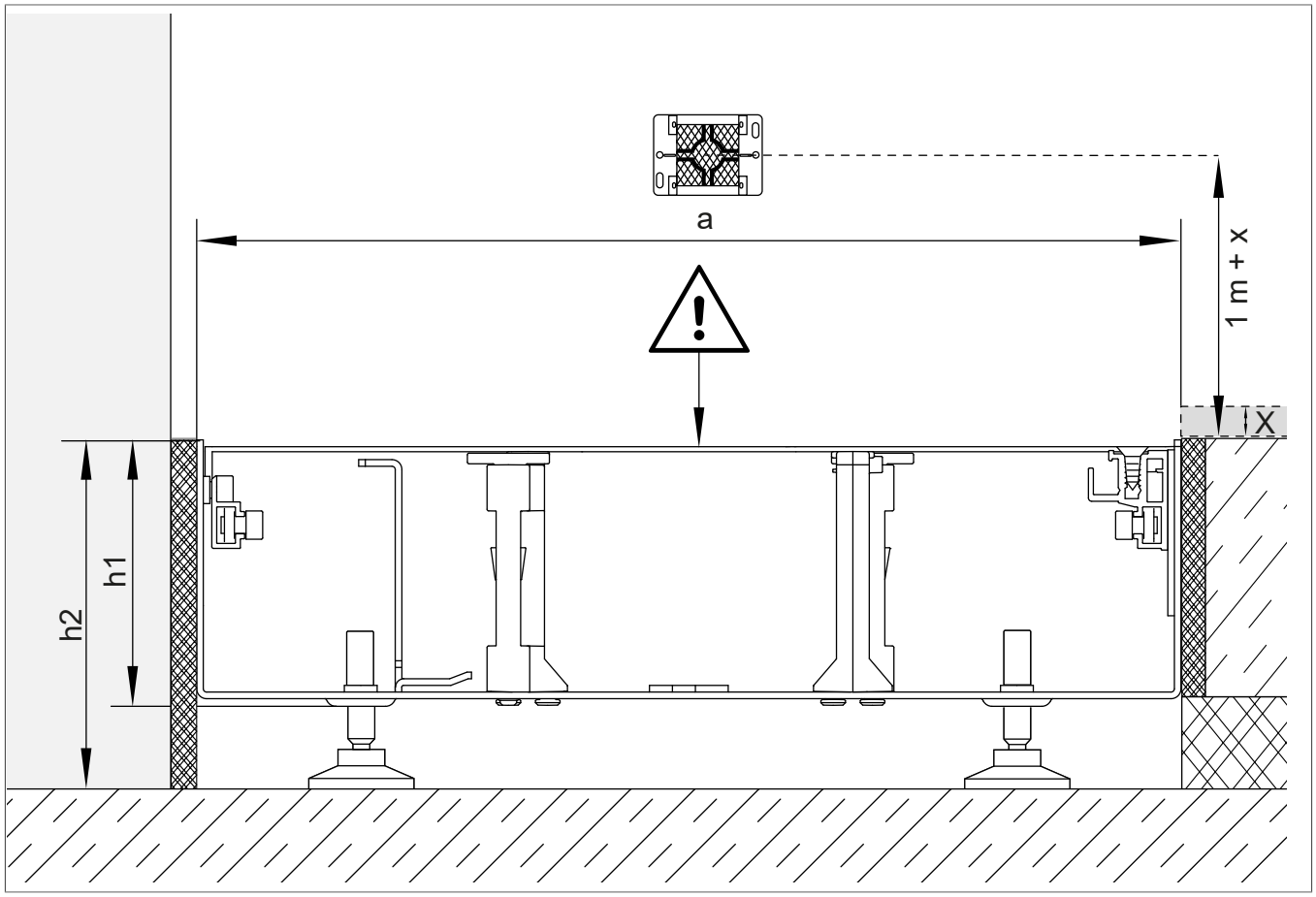


Fig. 40: Metre level BKBD trunking system

h1 Trunking height
h2 Installation height of trunking with levelling set
a Trunking width
X Height of floor covering

The floor covering should run one metre below the metre level. This means that the trunking must be below the thickness of the floor covering and the correct levelling set must be selected accordingly. As the base floor is never completely flat, it is recommended that you also order the next larger or smaller levelling set (see Levelling set with floor structure).

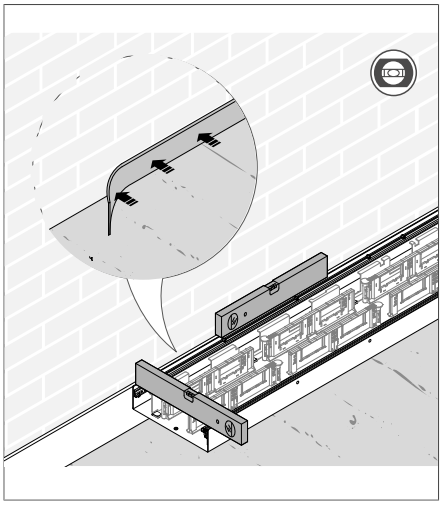
Attention

When skirting boards are used, they can protrude into the brush opening.

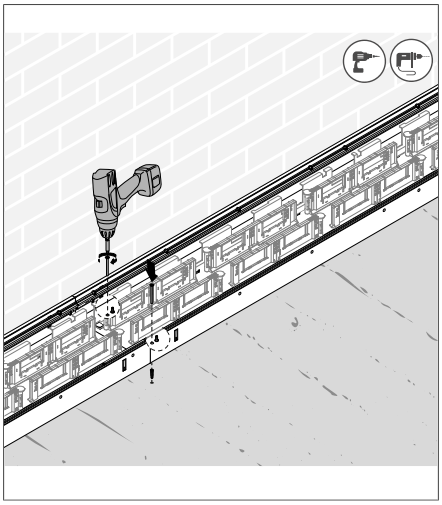
The brush opening cannot be used at all or only to a limited extent

The distance between the trunking and the wall should also include a maximum skirting board width of approx. 11 mm.

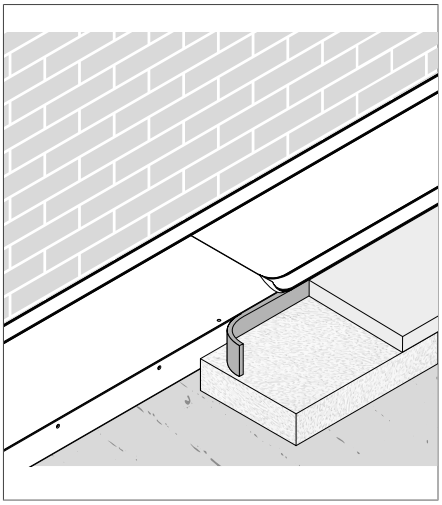
1. Screw the levelling set into the trunking base. Insert perimeter insulating strips between the wall and the trunking system. Place the trunking against the wall and level it to a metre level plus the thickness of the floor covering.



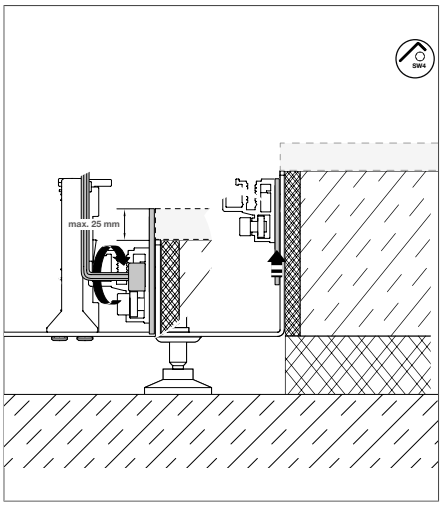
2. Attach trunking to the base floor to prevent floating. If necessary, fill the gap between the trunking and the base floor. Screw the mounting cover back onto the trunking to counteract the pressure of the screed.



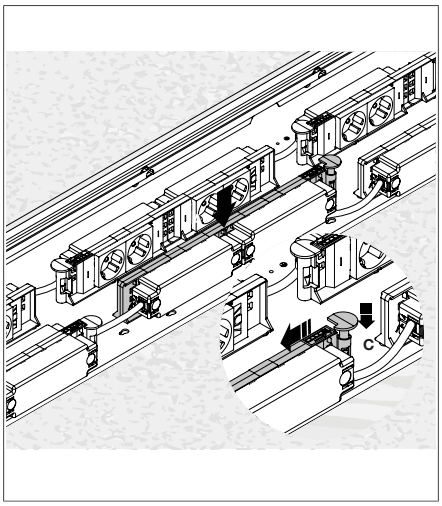
3. Lay perimeter insulating strips on the trunking. Seal the trucking cover with adhesive tape to prevent screed ingress. Install the insulation and pour the screed.



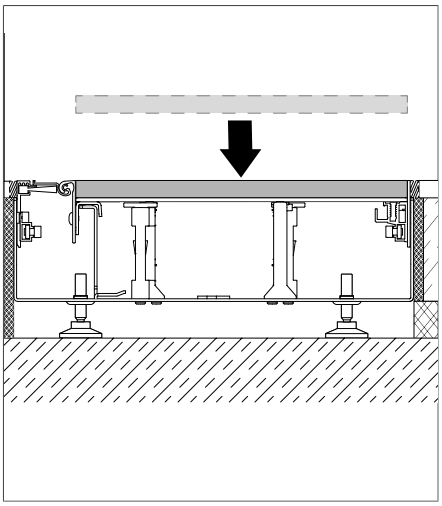
4. Remove the mounting cover and dispose of it properly. Level the floor covering strip to floor level and secure. Install the cover with the brush strip and also level the brush strip to the floor level.



5. Route and connect cables for power and data technology.



6. Work the floor covering cleanly up to the covering joint edge and lay it on the cover.



Installing BKG

☑ The metre level is indicated.

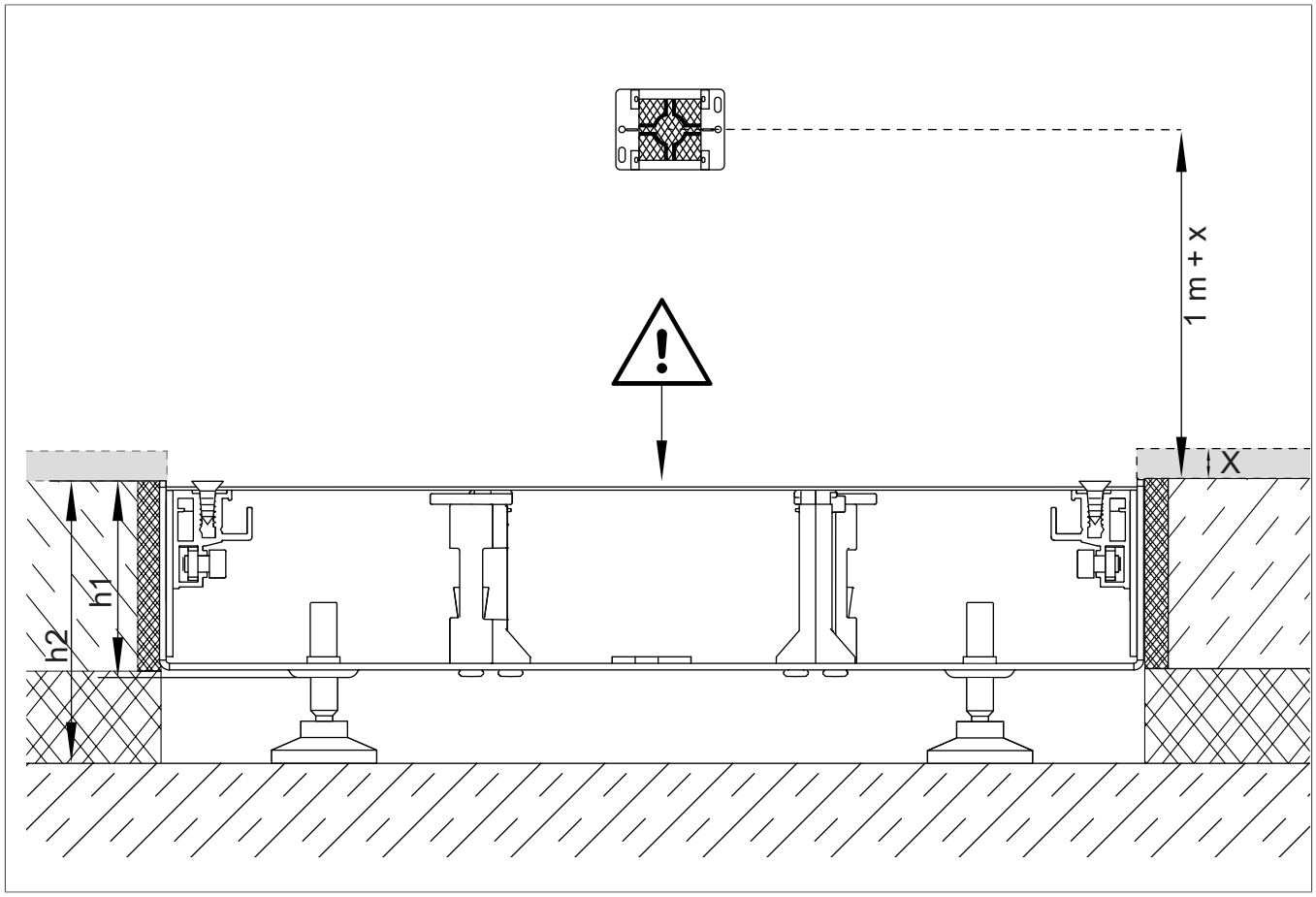
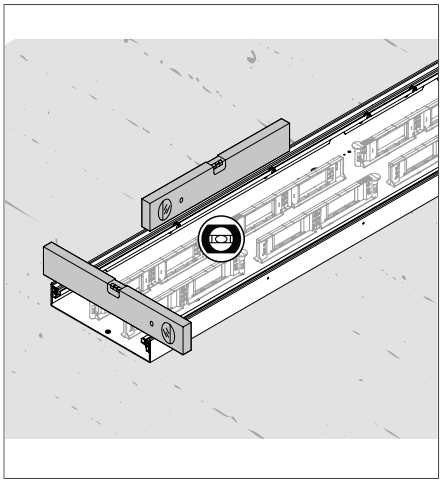


Fig. 41: Metre level BKBD trunking system

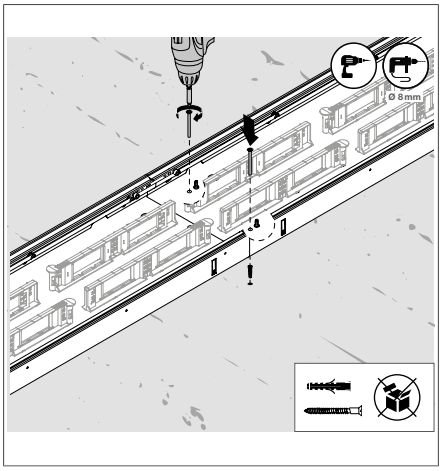
h1 Trunking height
h2 Installation height of trunking with levelling set
a Trunking width
X Height of floor covering

The floor covering should run one metre below the metre level. This means that the trunking must be below the thickness of the floor covering and the correct levelling set must be selected accordingly. As the base floor is never completely flat, it is recommended that you also order the next larger or smaller levelling set (see the Levelling pins with floor structure chapter).

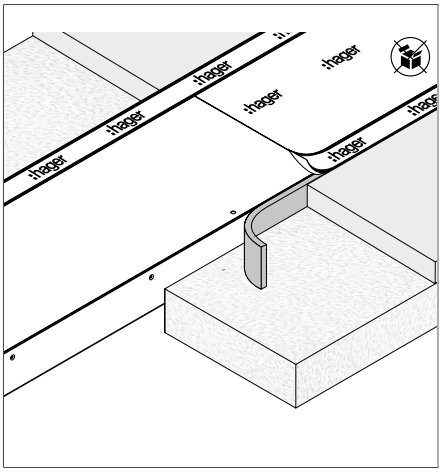
1. Screw the levelling set into the trunking base. Route the trunking and level it to the metre level plus the thickness of the floor covering.



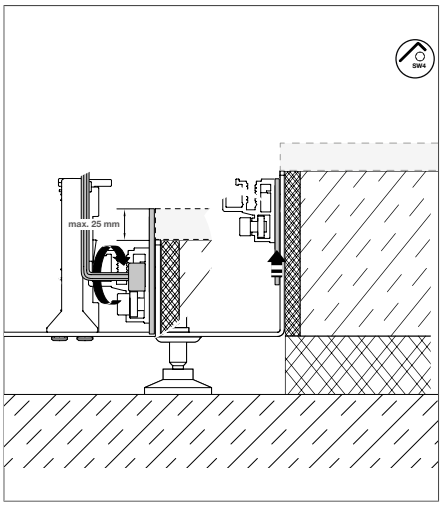
2. Attach trunking to the base floor to prevent floating. If necessary, fill the gap between the trunking and the base floor. Screw the mounting cover back onto the trunking to counteract the pressure of the screed.



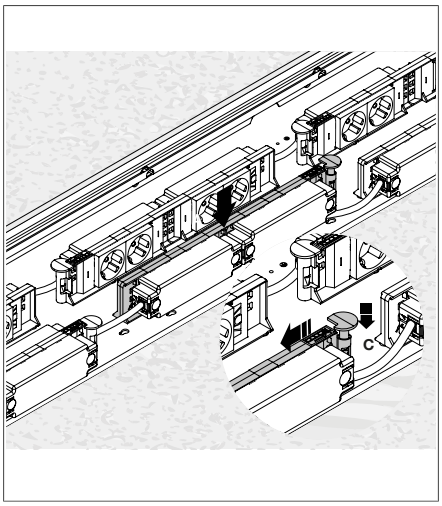
3. Lay perimeter insulating strips on the sides of the trunking. Seal the trucking cover with adhesive tape to prevent screed ingress. Install the insulation and pour the screed.



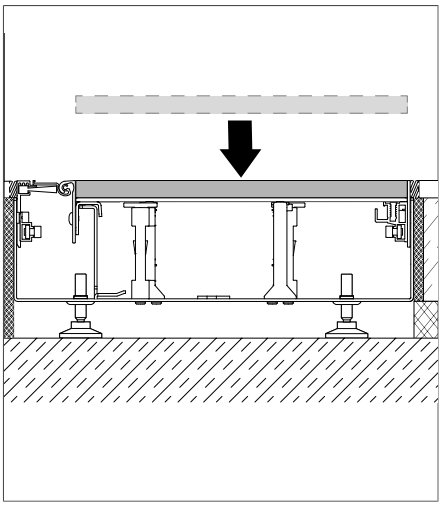
4. Remove the mounting cover and dispose of it properly. Level the floor covering strip to floor level and secure.



5. Route and connect cables for power and data technology.



6. Work the floor covering cleanly up to the covering joint edge and lay it on the cover.



9.2 Installation during renovation

In the planning phase for the use of a trunking system, the height of the existing floor structure is known. In addition, a rough plan of future room layout and usage and the required network and energy infrastructure is available.

During the planning phase, the following points must be taken into account:

- Where should the installation take place?
  - On the wall? → Use the BKB trunking
  - In the room, on door thresholds? → Use the BKG trunking
- How high is the maximum floor structure?
  - The thickness of the insulation layer and screed define the maximum trunking height.
- Cable assignment
  - The number and type of cables define the required trunking width.

Build-out phase

Clean lifting of the screed down to the raw concrete layer. The width should be much larger than the width of the trunking itself.

Installing BKB

☑ The metre level is indicated.

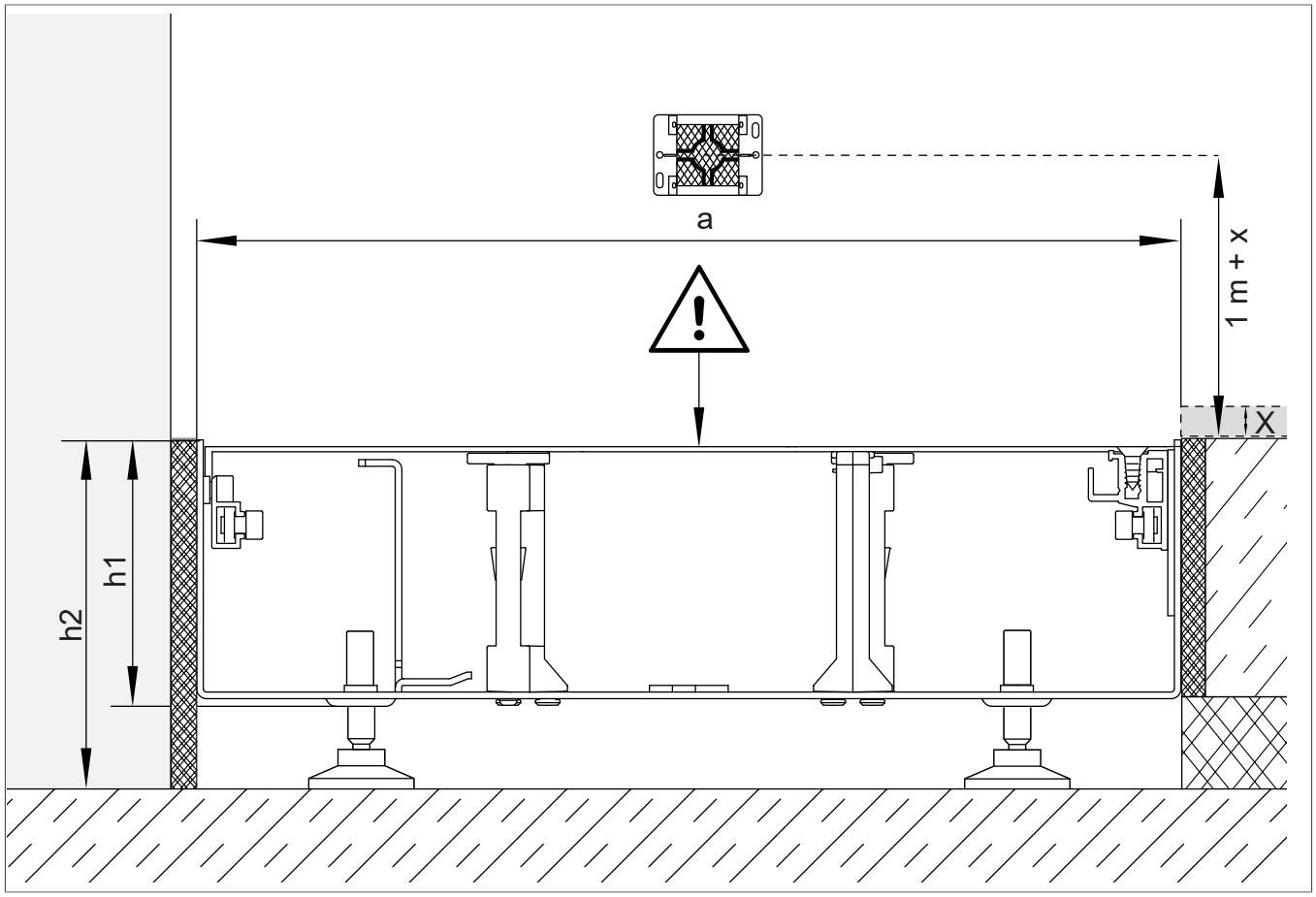


Fig. 42: Metre level BKBD trunking system

h1 Trunking height
h2 Installation height of trunking with levelling set
a Trunking width
X Height of floor covering

The floor covering should run one metre below the metre level. This means that the trunking must be below the thickness of the floor covering and the correct levelling set must be selected accordingly. As the base floor is never completely flat, it is recommended that you also order the next larger or smaller levelling set (see Levelling set with floor structure).

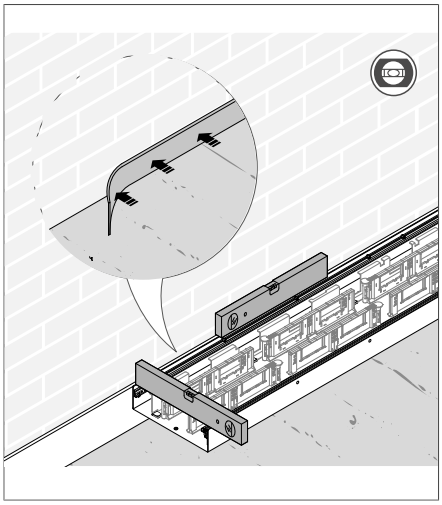
Attention

When skirting boards are used, they can protrude into the brush opening.

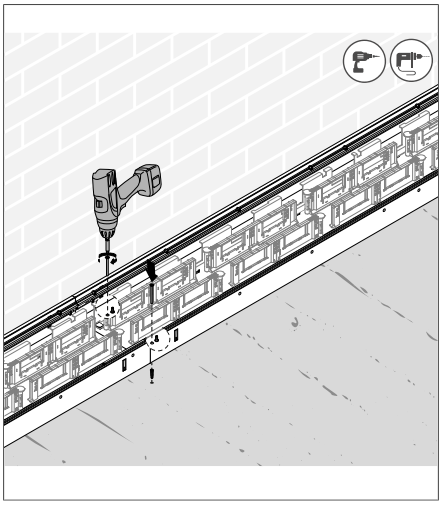
The brush opening cannot be used at all or only to a limited extent

The distance between the trunking and the wall, to the perimeter insulating strips, should also include a maximum skirting board width of approx. 11 mm.

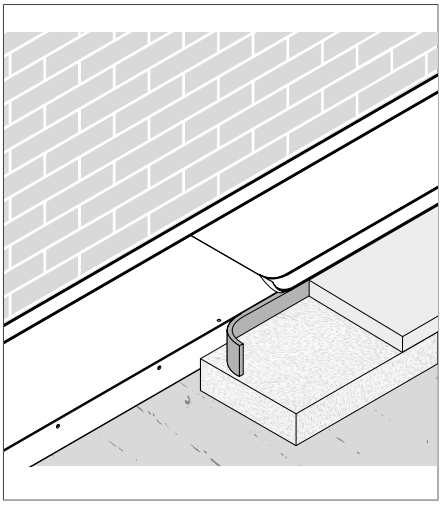
1. Screw the levelling set into the trunking base. Insert perimeter insulating strips between the wall and the trunking. Place the trunking against the wall and level it to a metre level plus the thickness of the floor covering.



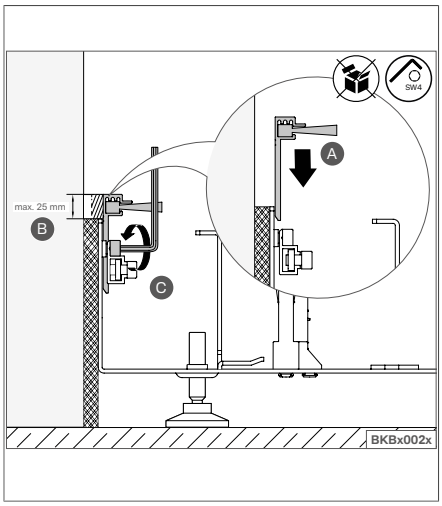
2. Attach trunking to the base floor to prevent floating. If necessary, fill the gap between the trunking and the base floor. Screw the mounting cover back onto the trunking to counteract the pressure of the screed.



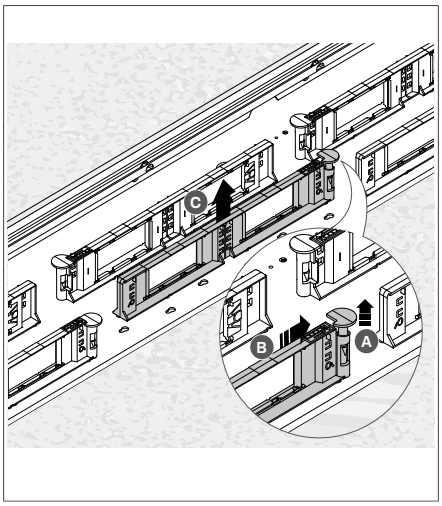
3. Lay perimeter insulating strips on the trunking. Seal the trucking cover with adhesive tape to prevent screed ingress. Install the insulation and pour the screed.



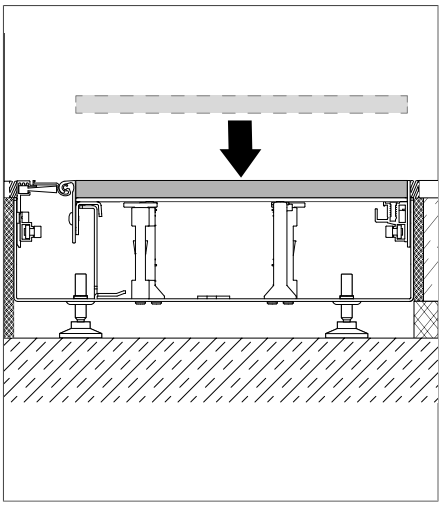
4. Remove the mounting cover and dispose of it properly. Level the floor covering strip to floor level and secure. Install the cover with the brush strip and also level the brush strip to the floor level.



5. Route and connect cables for power and data technology.



6. Work the floor covering cleanly up to the covering joint edge and lay it on the cover.



Installing BKG

☑ The metre level is indicated.

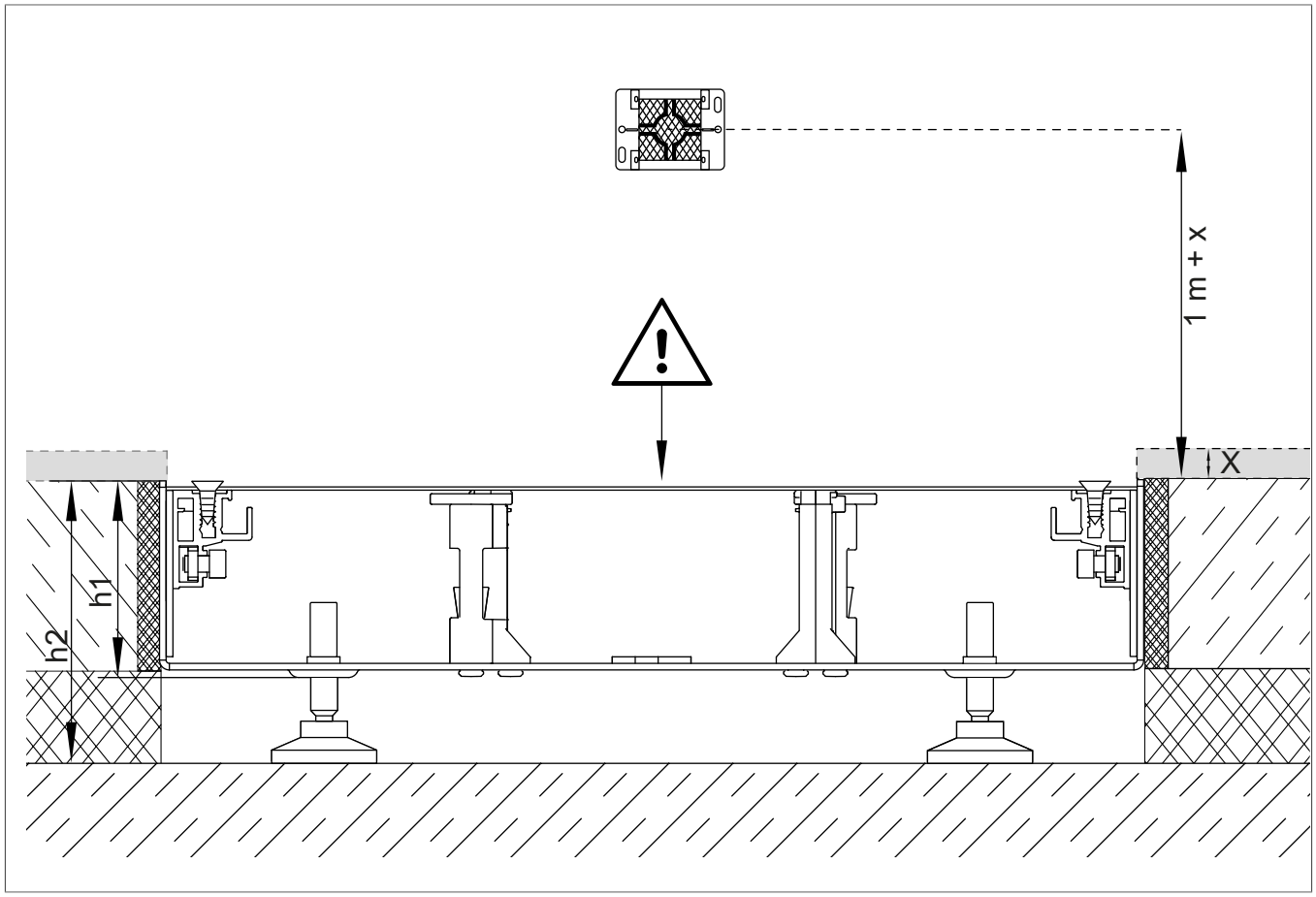
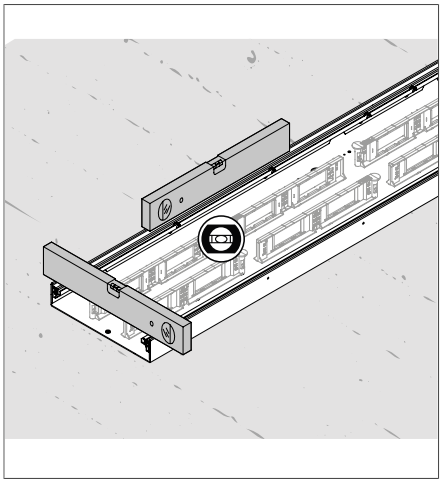


Fig. 43: Metre level BKBD trunking system

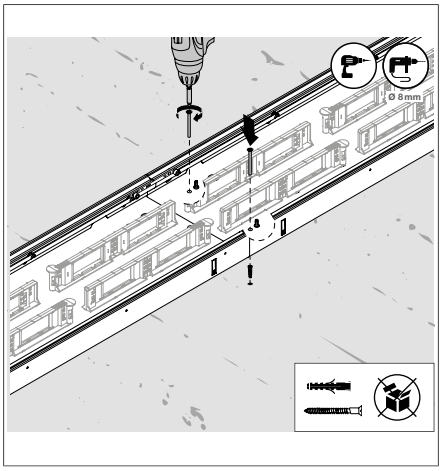
h1 Trunking height
h2 Installation height of trunking with levelling set
a Trunking width
X Height of floor covering

The floor covering should run one metre below the metre level. This means that the trunking must be below the thickness of the floor covering and the correct levelling set must be selected accordingly. As the base floor is never completely flat, it is recommended that you also order the next larger or smaller levelling set (see Levelling set with floor structure).

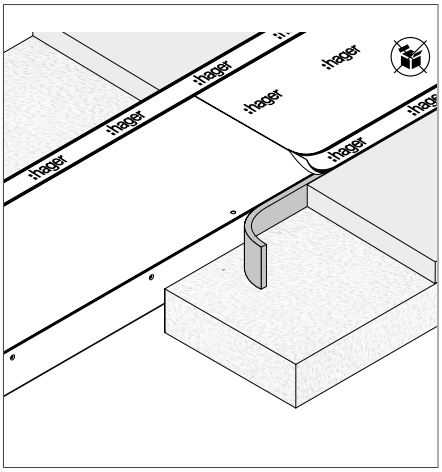
1. Screw the levelling set into the trunking base. Route the trunking and level it to the metre level plus the thickness of the floor covering.



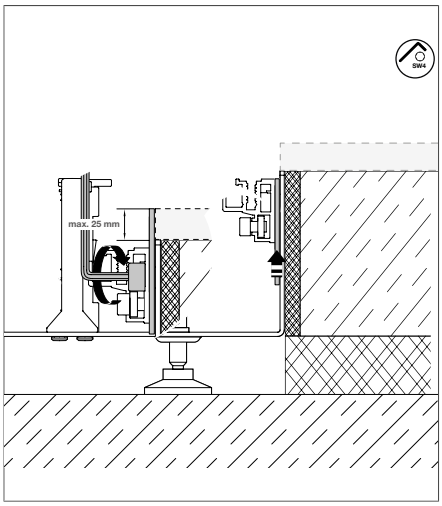
2. Attach trunking to the base floor to prevent floating. If necessary, fill the gap between the trunking and the base floor. Screw the mounting cover back onto the trunking to counteract the pressure of the screed.



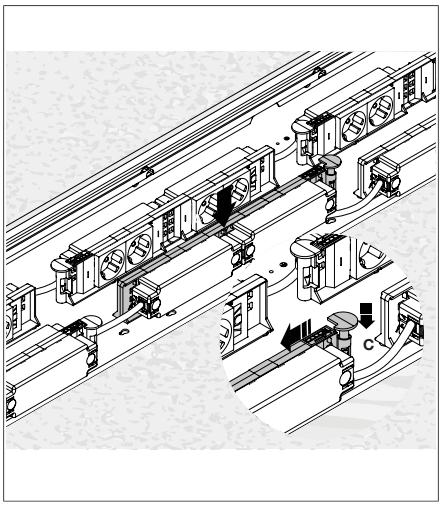
3. Lay perimeter insulating strips on the sides of the trunking. Seal the trucking cover with adhesive tape to prevent screed ingress. Install the insulation and pour the screed.



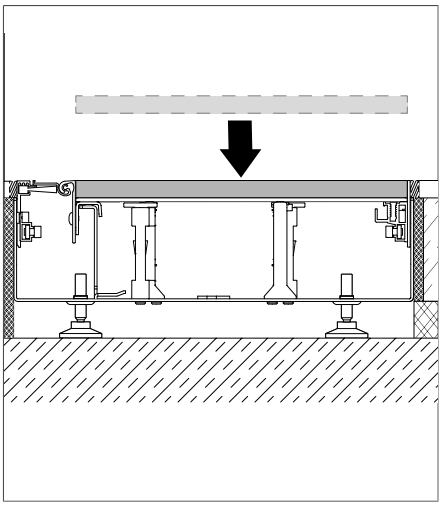
4. Remove the mounting cover and dispose of it properly. Level the floor covering strip to floor level and secure.



5. Route and connect cables for power and data technology.



6. Work the floor covering cleanly up to the covering joint edge and lay it on the cover.



10 Installing floor coverings around trunking on screed-flush floors

- If the screed does not end flush with the top edge of the floor trunking, the trunking must be levelled off if possible or compensating compound must be applied over a large area to avoid unevenness in the floor covering.
- The mounting protective covers of the floor trunking (BKBx, BKGx) must be replaced with suitable trunking covers (to be ordered separately).

10.1 Installing floor coverings — BKB

- Align the brush profile ① with the top edge of the floor covering ⑤ and tighten the screws.
- Align the covering joint edge ④ on the room side with the top edge of the floor covering ⑤ and tighten the screws.
- Work the floor covering ⑤ up to the covering joint edge ④. For hard floor coverings, such as wood or tiles, provision for expansion joints must be provided.
- Align the covering joint edge of the trunking cover ② with the floor covering ⑤ and tighten the screws.
- Glue the trunking cover ③ to the floor covering ⑤. With floor coverings that tend to fray, the edges should be sealed.

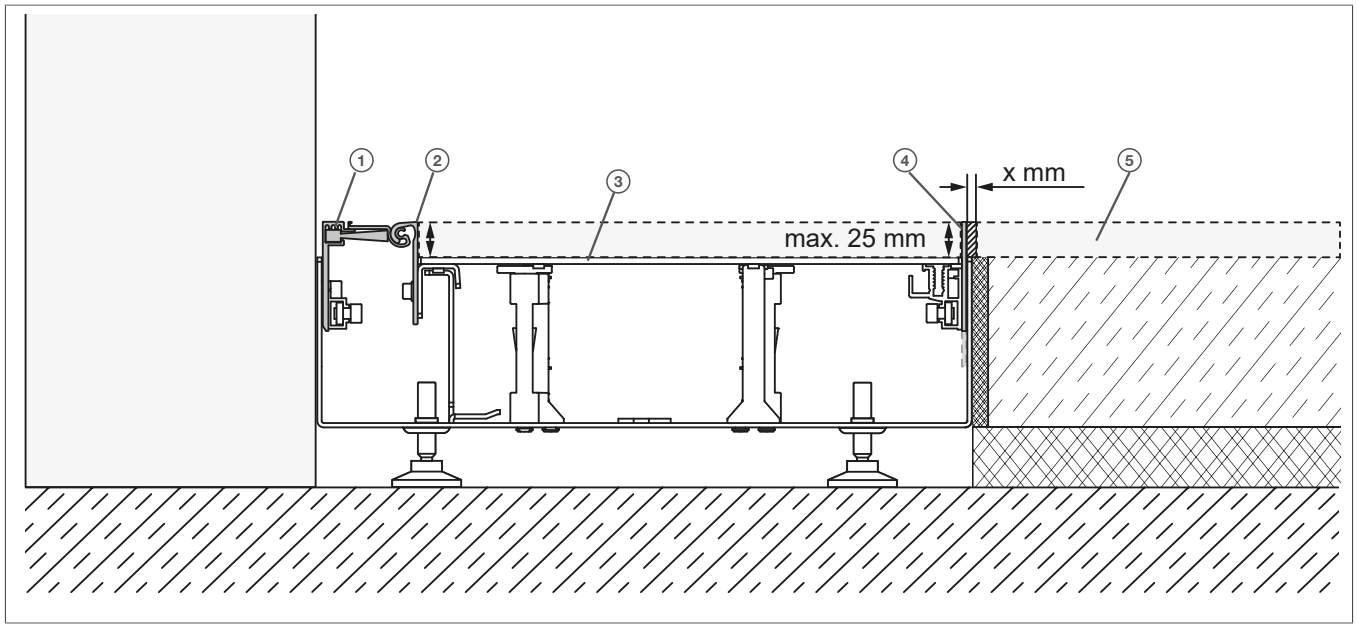


Fig. 44: Installing floor coverings — BKB

① Brush profile
② Covering joint edge of trunking cover
③ Trunking cover
④ Covering joint edge
⑤ Floor covering

10.2 Installing floor coverings — BKG

- Align the covering joint edge ④ with the top edge of the floor covering ⑤ and tighten the screws.
- Work the floor covering ⑤ up to the covering joint edge ④. For hard floor coverings, such as wood or tiles, provision for expansion joints must be provided.
- Align the cable outlet ⑥ for the trunking cover ③ with the floor covering ⑤ and fix the cable outlet in position.
- Glue the trunking cover ③ to the floor covering ⑤. With floor coverings that tend to fray, the edges should be sealed.

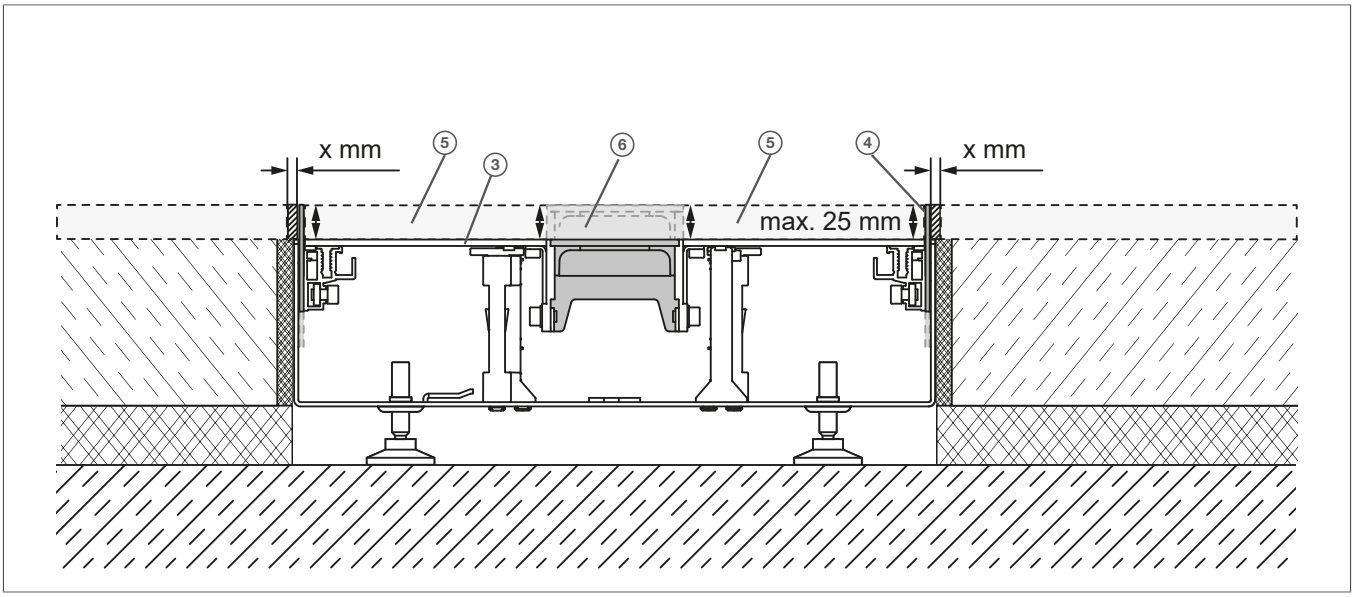


Fig. 45: Installing floor coverings — BKG

③ Trunking cover
④ Covering joint edge
⑤ Floor covering
⑥ Cable outlet

11 Impact noise

Note

Further information on the impact noise performance of trunking systems can be found on the products in the following section **Technical appendix —— Floor installation systems — Impact noise behaviour**.

11.1 BKBx floor trunking with brush outlet

The BKBx floor trunking with brush outlet shown in the image (Fig. 46) was installed on the wall.

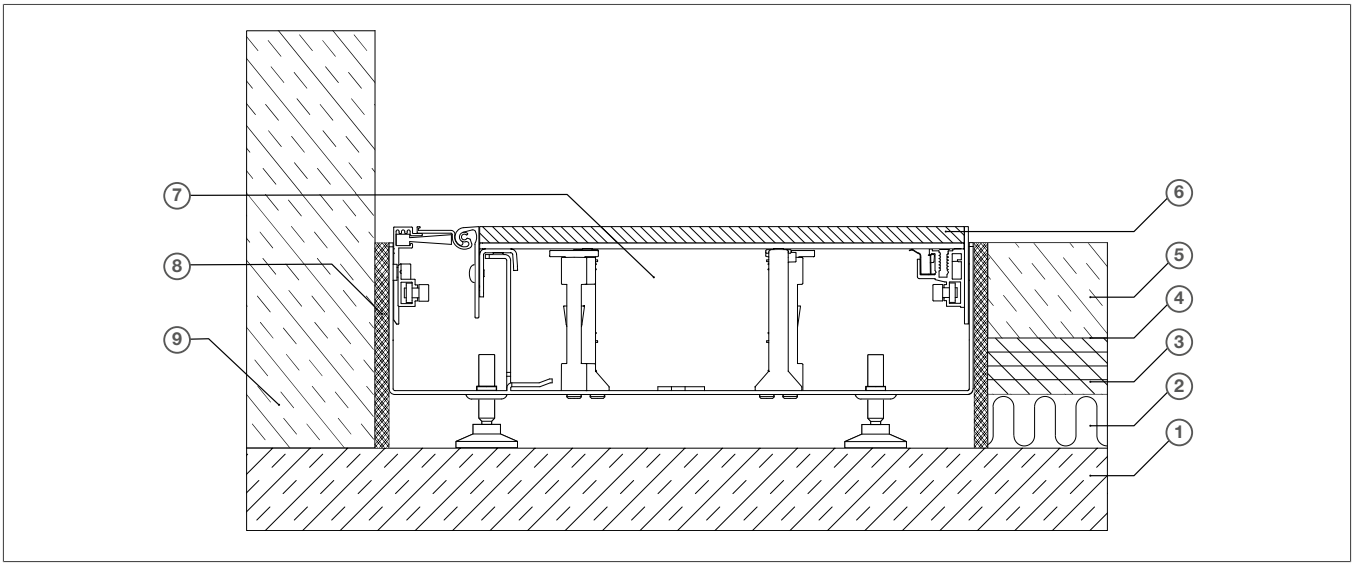


Fig. 46: Concept drawing of the test setup for the BKBx floor trunking with brush outlet on the ceiling test station

1. Bare ceiling slab
2. 40 mm thermal insulation (styrofoam)
3. 30 mm impact noise insulation
4. 0.2 mm PE film
5. 50 mm cement screed
6. Floor covering
7. BKBx floor trunking with brush outlet
8. 8 mm perimeter insulating strip
9. Wall

No.	Test position / type	Levelling feet	Cable	Bolted joint	Floor covering	Impact noise reduction ΔL_w	Reference area ΔL_w
A	On BKBx	BKBNSD 80 (insulation: felt)	Yes (50 %)	4 screws + wall plugs	Wood	28 dB	29 dB
B			No			26 dB	
C					Tiles	28 dB	
D					Carpet	30 dB	
E				No	Wood	28 dB	
F	Next to BKBx				-	31 dB	

Table 8: Measured values for impact noise reduction, BKBx

Summary of test results

- Cable occupation:
  Cable occupation has a positive effect on impact noise reduction: impact noise reduction for “50 % cable occupation” is approx. 2 dB higher than “without cable occupation”.
- Floor covering:
  Carpet achieves the highest impact noise reduction (ΔL_w = 30 dB).
  On tiles, impact noise reduction is approx. 2 dB lower than the measured values with carpet.
  On wood, impact noise reduction is approx. 4 dB lower than the measured values with carpet.
- Comparison without/with bolted joint on bare concrete floor:
  A bolted joint on the bare concrete floor has a negative effect on impact noise reduction:
  impact noise reduction for “without bolted joint” is approx. 2 dB more than “with bolted joint”.
- Effect of the floor trunking on the surrounding screed:
  Installing the floor trunking has no significant effect on the impact noise reduction of the screed.

11.2 BKGx floor trunking

The BKGx floor trunking shown in the image (Fig. 47) was installed in the room.

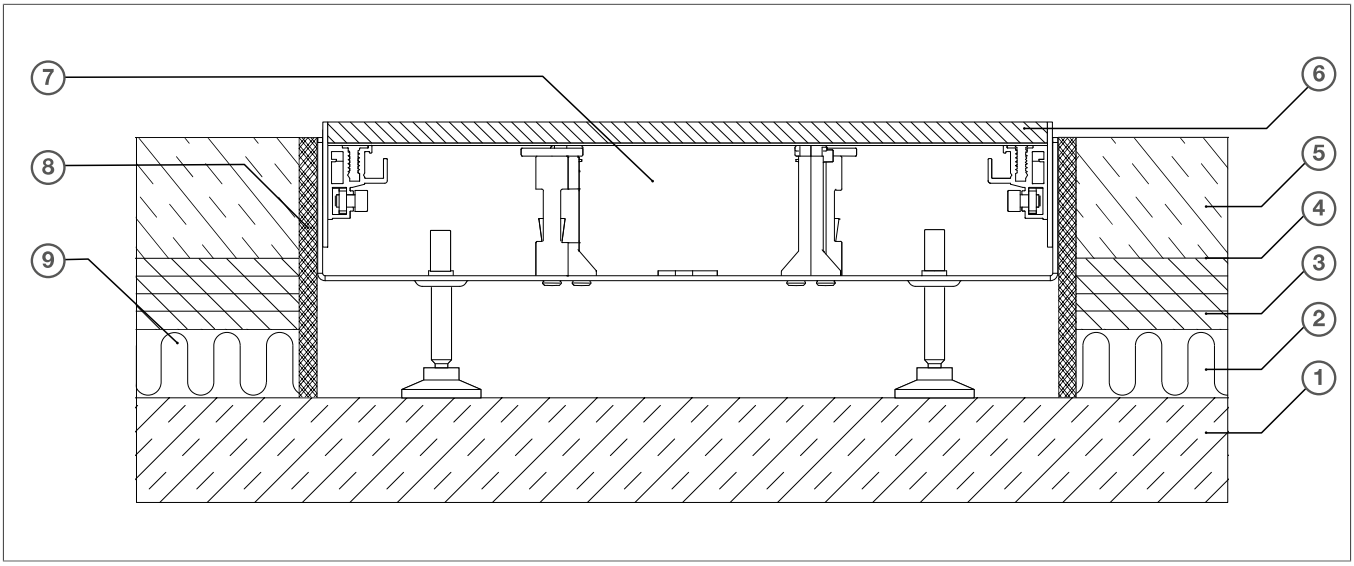


Fig. 47: Concept drawing of the test setup for the BKGx floor trunking on the ceiling test station

① Bare ceiling slab
② 40 mm thermal insulation (styrofoam)
③ 30 mm impact noise insulation
④ 0.2 mm PE film
⑤ 50 mm cement screed
⑥ Floor covering (carpet 11 mm, tiles 7 mm, wood 7 mm)
⑦ BKGx floor trunking

No.	Test position / type	Levelling feet	Cable	Bolted joint	Floor covering	Impact noise reduction ΔL_w	Reference area ΔL_w
A	On BKGx	BKBNSD 80 (insulation: felt)	Yes (50 %)	4 screws + wall plugs	Wood	30 dB	29 dB
B			No			28 dB	
C					Tiles	31 dB	
D					Carpet	32 dB	
E				No	Wood	29 dB	
F					Tiles	32 dB	
G					Carpet	32 dB	
F	Next to BKGx				-	32 dB	

Table 9: Measured values for impact noise reduction, BKGx

Summary of test results

- Cable occupation:
  Cable occupation has a positive effect on impact noise reduction: impact noise reduction for “50 % cable occupation” is approx. 2 dB higher than “without cable occupation”.
- Floor covering:
  Carpet achieves the highest impact noise reduction (ΔL_w = 32 dB).
  On tiles, impact noise reduction is approx. 1 dB lower than the measured values with carpet.
  On wood, impact noise reduction is approx. 4 dB lower than the measured values with carpet.
- Comparison without/with bolted joint on bare concrete floor:
  A bolted joint on the bare concrete floor has a slightly negative effect on impact noise reduction: impact noise reduction for “without bolted joint” is approx. 1 dB more than “with bolted joint”.
- Effect of the floor trunking on the surrounding screed:
  Installing the floor trunking has no significant effect on the impact noise reduction of the screed.

11.3 Horizontal sound transmission

Horizontal sound transmission involves the transmission of sound through the trunking from **room to room**. The trunking below the wall must be interrupted and continued with an offset of 1 cm. The trunking must not be fitted joint to joint. The offset of 1 cm must be filled with pigtails (see Accessories).

Trunking type	**BKB 300x80**	**BKG 200x60**	**BKG 300x60**	**BKG 400x60**	**BKG 500x60**	**BKG 300x80**	**BKG 400x80**	**BKG 500x80**
Number of pigtails	33	16	25	33	41	33	44	55

Table 10: Trunking type and number of pigtails for the sound barrier

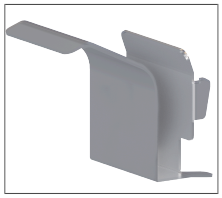
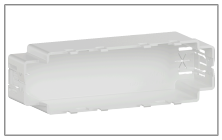
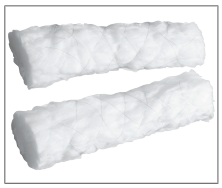
12 Normative information

Classification according to EN 50085-1		BKB	BKG
6.2	**Based on impact resistance for installation and application**		
6.2.5	Cable trunking and ducting systems for impact energy of 20 J	X	X
6.3	**Based on temperature**		
Tab. 1	Minimum storage and transport temperatures +/-2°C		
	-25°C	X	X
Tab. 2	Minimum installation and application temperatures +/-2°C		
	-5°C	X	X
Tab. 3	Maximum application temperatures +/-2°C		
	+60°C	X	X
6.4	**Based on resistance to flame propagation**		
6.4.2	Non-flame propagating cable trunking and ducting systems	X	X
6.5	**Based on electrical conductivity**		
6.5.1	Cable trunking and ducting system with electrical conductivity	X	X
6.6	**Based on electrical insulating properties**		
6.6.1	Cable trunking and ducting system without electrical insulating properties	X	X
6.7	**Degrees of protection**		
	IP20	X	X
	IP30	X	X
6.8	**Protection against corrosive or contaminating substances**		
6.8.6	With high external and internal protection	X	X
6.9	**Based on fastening type for system trunking cover**		
6.9.1	The trunking cover of the cable trunking and ducting system can be opened without a tool.	X	X
6.10	**Based on electrical protection separation**		
6.10.1	Cable trunking and ducting systems without an internal protective separation element	X	X

Classification according to EN 50085-2-2		BKB	BKG
6,101	**Based on type of floor maintenance**		
6,101.1	Electrical installation system for dry floor maintenance	X	X
6,102	**Based on resistance to vertical loads applied to a small area (approx. Ø 13.3 mm ± 0.1)**		
6,102.7	Electrical installation system for 3000 N	X	X
6,103	**Based on resistance to vertical loads applied to a large area (approx. Ø 130 mm)**		
6,103.3	Electrical installation system for 5000 N	X	X

13 Appendix

13.1 Accessories

	Designation	Order No.
	Levelling set 35 mm with attenuation, 8 pcs	BKBNSD35
	Levelling set 60 mm with attenuation, 8 pcs	BKBNSD60
	Levelling set 80 mm with attenuation, 8 pcs	BKBNSD80
	Levelling set 100 mm with attenuation, 8 pcs	BKBNSD100
	Levelling set 120 mm with attenuation, 8 pcs	BKBNSD120
	Levelling set 160 mm with attenuation, 8 pcs	BKBNSD160
	Levelling set 35 mm with attenuation, 100 pcs	BKBNSD35A
	Levelling set 60 mm with attenuation, 100 pcs	BKBNSD60A
	Levelling set 80 mm with attenuation, 100 pcs	BKBNSD80A
	Levelling set 100 mm with attenuation, 100 pcs	BKBNSD100A
	Levelling set 120 mm with attenuation, 100 pcs	BKBNSD120A
	Levelling set 160 mm with attenuation, 100 pcs	BKBNSD160A
	Grounding spring for BKB/BKG, 10 pieces	BKGPA
	Grounding spring for BKB/BKG, 100 pieces	BKGPAA
	Protection casing 1x 45	BKGDFLFGR1
	Protection casing 2x 45	BKGDFLFGR2Q
	Sound barrier with pigtails, non-combustible soundproofing for wall pass-throughs	L5804

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