

Installation guideline FLOOR and more[®] comfort

MR-SB-07

1. Table of contents

1.	Table of contents	2
2.	Explanations to this guideline.....	3
3.	General indications / installation conditions.....	5
4.	Floor components	7
5.	Necessary tools for installation.....	9
6.	Floor installation.....	10

2. Explanations to this guideline

Dear customer

Thank you for choosing a product of the Lindner Group.

This guideline gives a description of the required work steps in words and by means of pictures.

Furthermore, it contains important instructions and information on the installation of our dry hollow floor system FLOOR and more® comfort. Please read and pay attention to this guideline in order to ensure a smooth installation.

Please also pay attention to all safety and warning notices.

For reasons of clarity, not all detailed information to every single step could be shown.


Texts and pictures published in this document are exemplary. No warranty is taken for completeness and therefore no claims in this context may be filed.. Please do not hesitate to contact us in case you should have any questions or if we can be of further assistance for you.

The installation by trained and professional installation staff is mandatory. Thoroughly and frequent planned maintenance increases lifetime an safety of the dry hollow floor system.

Please keep this guideline thoroughly!










The information in this guideline corresponds to the current state of our knowledge and shall inform about the installation of our products. It is therefore not intended to guarantee certain characteristics of the products or their suitability for a specific application. Hence, buyers and users have to autonomously evaluate the suitability of our products for the demands which are subject to the respectively prevailing conditions. We are pleased to assist you, if you have any questions or queries concerning the possibilities of application and use of our floor systems.

2.1. Used warning notices

 WARNING	Marks a danger which can immediately lead to an injury .
<p><i>Type of danger and its sources</i></p> <p><i>Consequences</i></p> <p>⇒ <i>Measures for avoidance.</i></p> <p>⇒</p>	

ATTENTION	Marks a danger which can cause damage or destruction of the product .
<p><i>Type of danger and its sources</i></p> <p><i>Consequences</i></p> <p>⇒ <i>Measures for avoidance.</i></p> <p>⇒</p>	

2.2. Symbols

	Notice for the avoidance of material damage		Admissible action
	Non-admissible action		See text
	See picture		See separate installation guideline acc. to directions
	Optional building parts, can be ordered on request		Remove packaging or building part and dispose properly.
	Test / measure		

3. General indications / installation conditions

Indications

Please read the following instructions thoroughly before installation!

This installation guideline is also valid for the dry hollow floor systems
FLOOR and more® power
FLOOR and more® hydro
FLOOR and more® sonic and
FLOOR and more® acoustic.

The installation of FLOOR and more® comfort requires special experience and should only be done by “instructed professionals”.

The floor areas have to be sectioned respectively arranged sensibly before starting the installation. An installation plan has to be drawn.

According to the raised floor type and covering, adequate expansion joints have to be planned and maintained strictly

- The delivered material has to be checked on quantity, identity, quality and completeness. Complaints cannot be accepted after installation of the floor. Damage has to be reported immediately in order to maintain claims.
- The materials have to be stored in dry, air-conditioned rooms (20 ± 5 °C, 40 to 65 % relative air humidity). Do not store outside and protect them from humidity.
- In order to avoid deformation of the panels, they have to be stored on a level surface.
- The material should be acclimated at least 48 h inside the premises of installation before installing.
- When de-piling the pallets, make sure to only put the panels top side on top side and bottom side on bottom side in order to avoid rubbing off the batch labelling of the bottom side onto the covering on top of the raised floor panel.

ATTENTION

- The admissible climate during installation is 20 ± 5 °C and the admissible relative air humidity is 40 to 65 %.

- The installation may only be started if the admissible climate for the installation is reached and the facade is closed.
- The subfloor has to be dry, even, solid as well as free of cracks, craters and chemical substances (grease, oil). The overall drying has to be advanced insofar as that no considerable shrinking of the building has to be expected anymore.
- It is generally recommended to seal the subfloor in order to ensure a proper gluing of the pedestals. Before sealing, the subfloor has to be vacuum-cleaned.
- 2C sealing has to be used with air-conducting floors. All rising building elements have to be sealed up to the top edge of the floor (FLOOR and more® comfort). Openings in the ceiling have to be closed permanently elastic and air-tight.
- The subfloor has to be sufficiently resistant to abrasion. Any floated up layers of fine mortar or loosely adherent parts must be removed before installation.
- The subfloors have to be sufficiently load-bearing and able to absorb all occurring loads. The subfloor has to be within the levelness tolerances acc. to DIN 18 202, table 3, line 2 (latest edition) or the properties are regulated by additional agreements.
- A tear-off test with glued pedestals has to be executed with uncertain adhesion properties of the subfloor (e.g. PVC covering, primer or screed) in order to determine the strength of the substrate. A minimum strength of 110 N is necessary. This is determined by pulling the glued raised floor pedestal off the subfloor.
- The room has to be checked on rectangularity in order to avoid small cut panels.
- Cut as well as cut-out panels are generally to be supported sufficiently with pedestals and/or profiles.
- The fixed heights in the different levels have to be checked before the installation (e.g. height level, elevators and staircase).
- Details for the execution of electrical outlets, bridging etc. have to be planned project-based.
- The installer has the responsibility to keep his workplace safe in order to eliminate causes for accidents and damages.

WARNING

Missing or changed parts impair the function of the FLOOR and more® comfort and can cause material or personal damage.

- ↻ Do not change or remove any attached parts.
- ↻ Mount all parts shown in this guideline or which are necessary.

Please consider product specification sheets as well as safety data sheets, with use of glue and sealing.

4. Floor components



Picture 1 Components for the installation of FLOOR and more® comfort

- ① FLOOR and more® comfort panels stacked on a wood pallet
- ② Lindner Pedestal glue
- ③ Wall connection tape / Perimeter insulation tape FLOOR and more®
- ④ Hollow floor pedestals
- ⑤ Installation glue
- ⑥ Lindner Locking glue solvent-free
- ⑦ Lindner Subfloor sealant 1C
- ⑧ Lindner Edge sealant solvent-free
- ⑨ Edge insulation strips for FLOOR and more®
- ⑩ Lindner filler compound
- ⑪ Heat tube PE-DD
- ⑫ Feed pump
- ⑬ Bolt connection
- ⑭ Curved pipe guide
- ⑮ Watering can

4.1. Optional parts

These parts can be ordered optionally.



Picture 2 Optional parts

- ⑬ Wall connection from mineral wool / foaming-up sealing tape (fire protection)
- ⑭ SW90 pedestal
- ⑮ Pedestal type P (for FLOOR and more® power comfort)
- ⑯ Lindner Subfloor sealant 2C
- ⑰ Panel with cut-out for inserts
- ⑱ Pedestal cap RAS
- ⑲ Bracing M6 - M12 with threaded rod
- ⑳ Bridging profiles

Indication

The shown optional building parts are not being processed in this guideline. Application and execution is being explained in detail drawings or installation guidelines to different systems

5. Necessary tools for installation



Picture 3 Tools for installation

- | | |
|--|---|
| <ul style="list-style-type: none"> ① Rotating laser or optionally a levelling device (without illustration) or hose levelling instrument (without illustration) ② Vacuum cleaner ③ Broom / Scraper ④ Sprayer to apply subfloor sealant ⑤ Band saw ⑥ Circular hand saw ⑦ Router ⑧ Circular hand saw blade ⑨ Centre bit | <ul style="list-style-type: none"> ⑩ <u>Spike lifter</u> / Vacuum suction lifter ⑪ Caulking gun for 600 ml tube bags ⑫ Raised floor water level / Folding metre stick ⑬ Cutter / Pen for marking ⑭ Plastic wedges ⑮ Cartridge gun ⑯ Square / Brush |
|--|---|

6. Floor installation

6.1. Cleaning and sealing of subfloor



Picture 4 Cleaning of the subfloor



Picture 5 Application of the subfloor sealing

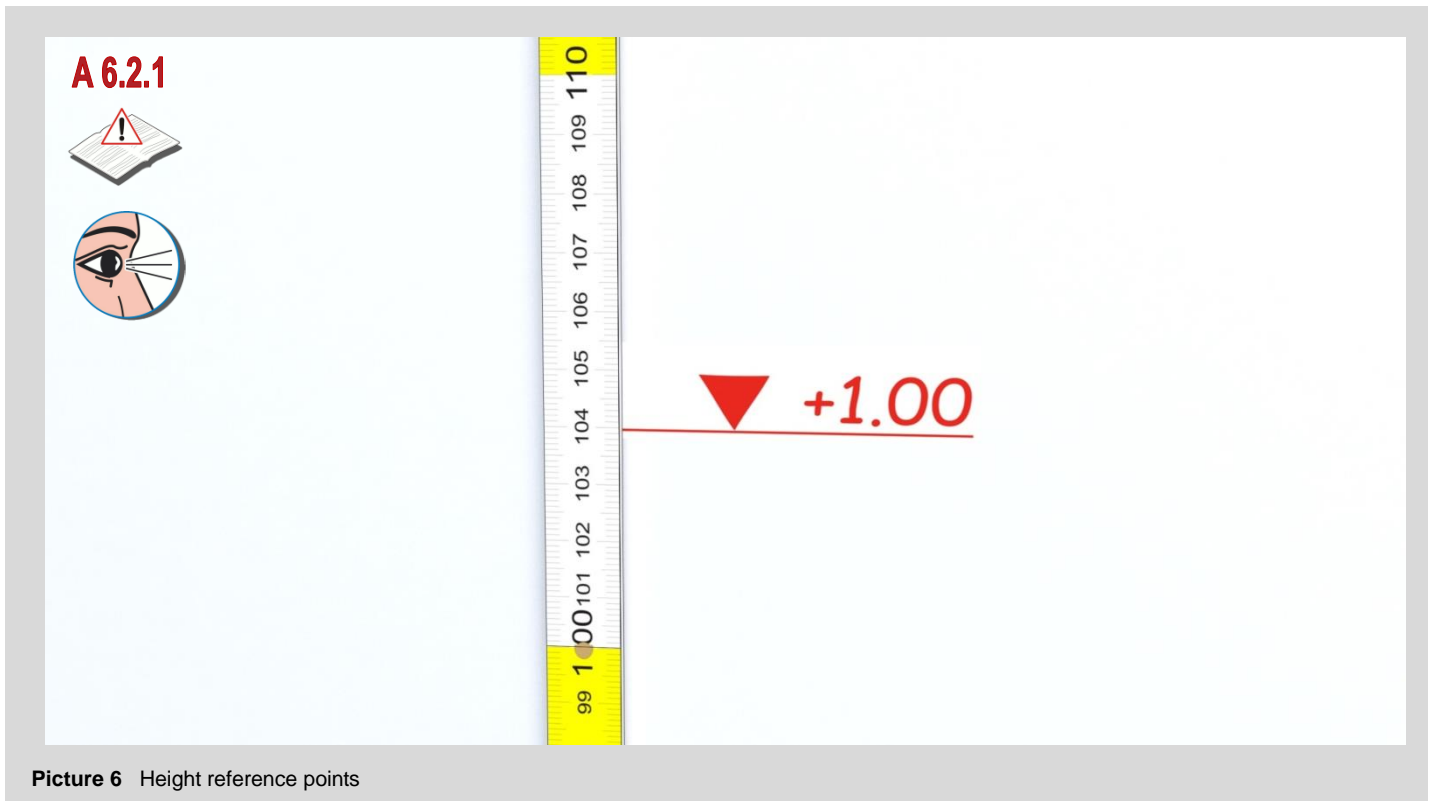
Work steps:

- A 6.1.1** The subfloor has to be vacuum-cleaned before installation.
- A 6.1.2** Apply the subfloor sealing (processing acc. to information of the respective manufacturer of the sealant). See also indications below.

Indications

- The subfloor has to be dry, level, solid as well as free of cracks, crates or chemical substances (grease, oil). The overall drying has to be insofar as that no considerable shrinking has to be expected anymore.
- The subfloor has to be sufficiently resistant to abrasion. Any floated up layers of fine mortar or loosely adherent parts must be removed before installation.
- We recommend sealing the subfloor with a 2-component sealing or a similar material with air-conducting floor systems. Please see the respective documents of the manufacturer for information on the processing.
- Safety data sheet has to be considered.

6.2. Fixing and checking of height reference points



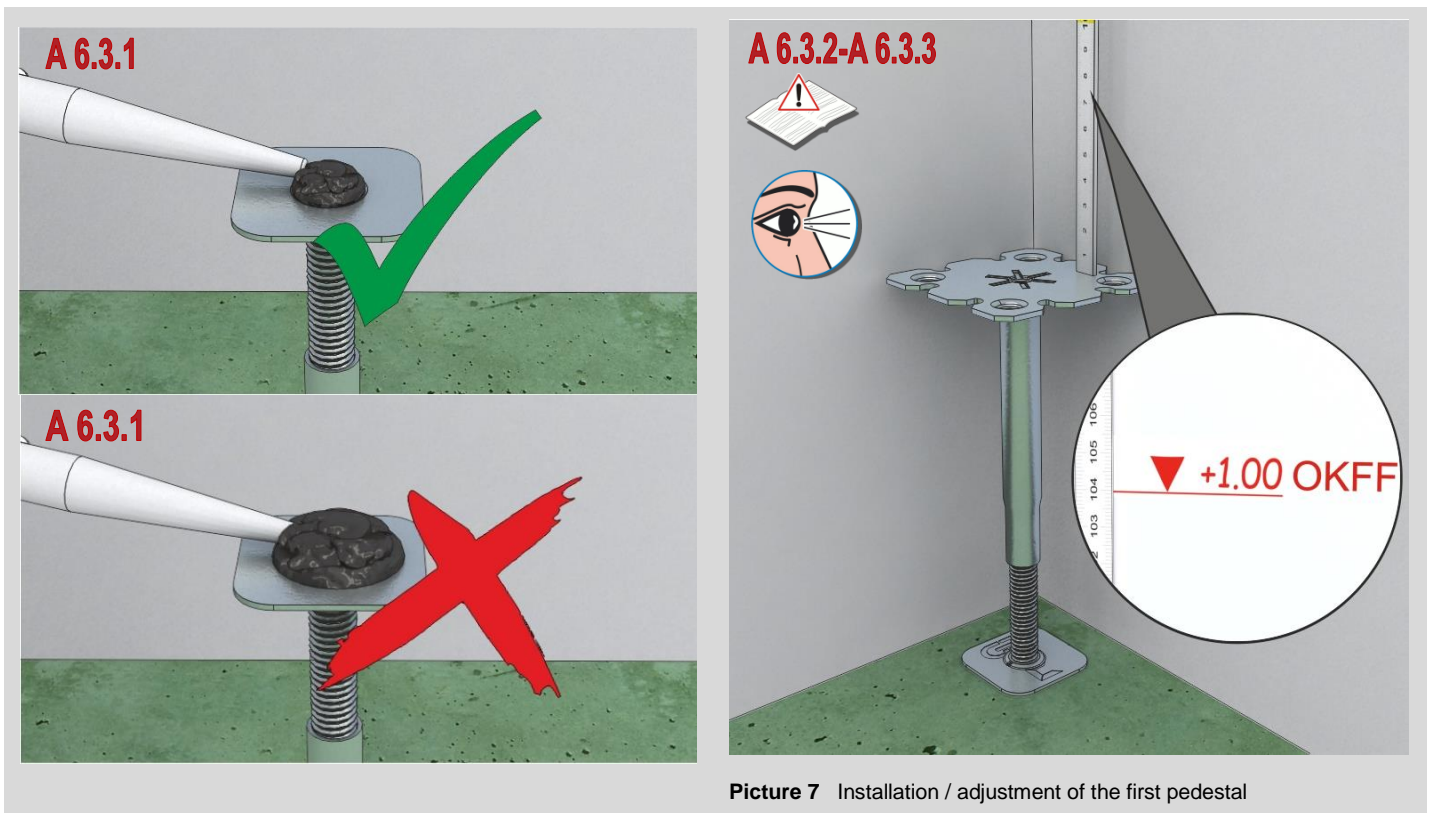
Work step:

A 6.2.1 Fix height reference points (e.g. height level, elevators or staircase).

Indications


- Height level means 1 m above the upper edge of the finished floor (FFH) including covering. The first pedestal has therefore to be lower by the thickness of the panel and the covering (as exemplary shown in the picture).

6.3. Adjustment of the first pedestal



Picture 7 Installation / adjustment of the first pedestal

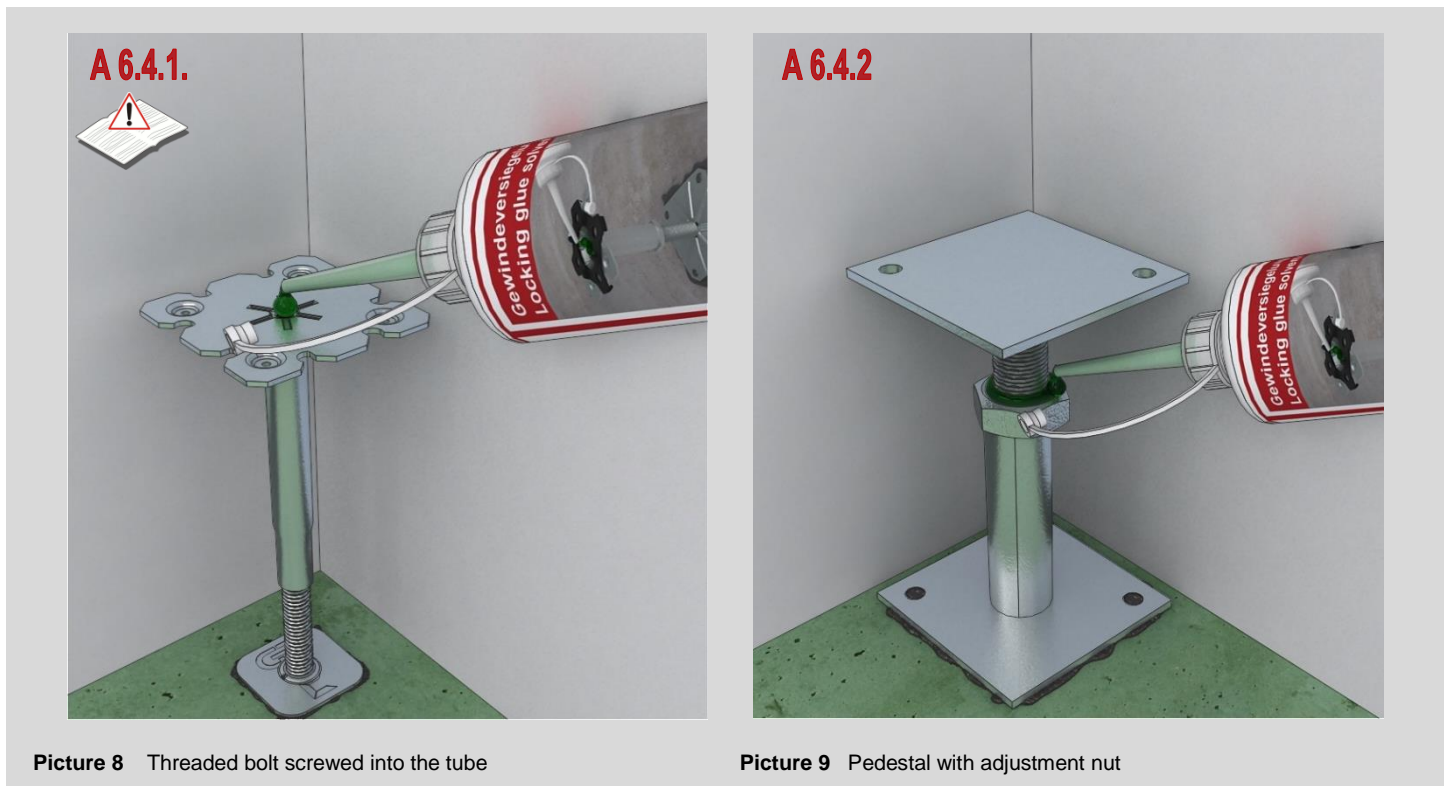
Work steps:

- A 6.3.1** Apply pedestal glue to the lower side of the pedestal base (approx. size of a walnut) by using a caulkungun. Please see the documentation of the respective manufacturer for information on the processing of the pedestal glue. 
- A 6.3.2** Turn around the pedestal, place it at reference point and press it down. Level pedestal to the required height with a levelling instrument (hose levelling instrument, levelling device, laser or similar).
Attention: Consider the thickness of the panel and covering!
- A 6.3.3** Let the glued pedestals start to dry if possible.

Indications


- The installation of the substructure has to be done corresponding to the valid installation plan.
- The installation of the floor system should only be executed by instructed professional staff.
- In terms of the admissible loads, it has to be paid attention that the grid dimension of the pedestals (different acc. to system) is not exceeded!
- The pedestal may not touch the wall (sound transmission).

6.4. Securing pedestals against height displacement



Work steps:

All pedestals have to be secured against height displacement after exact adjustment.

A 6.4.1 Variant 1 if threaded bolt is screwed into the tube.
Pour locking glue into the pedestal head from above.
See Picture 8. 

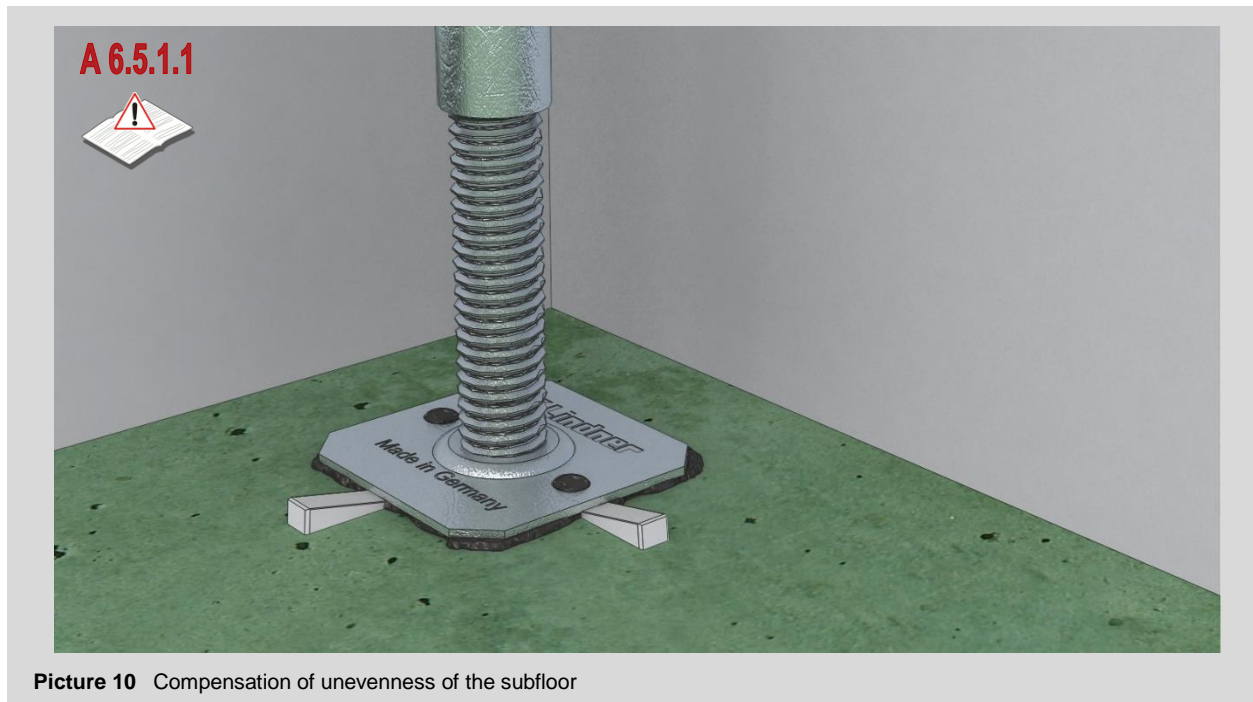
A 6.4.2 Variant 2 with adjustment nut
Apply locking glue on the nut on the side of the thread.
See Picture 9. 

See the technical documentation for the information on the processing of the locking glue.

6.5. Special cases / measures

The work steps presented in this chapter have to be applied acc. to the situation on site or rather to the static requirements. They are not part of the general installation.

6.5.1. Compensation of unevenness of the subfloor



Picture 10 Compensation of unevenness of the subfloor

Work step:

A 6.5.1.1 Compensate large unevenness by by using wedges.




6.5.2. Impact sound improvement



Picture 11 Installation of the sound dampening pad

Work step:

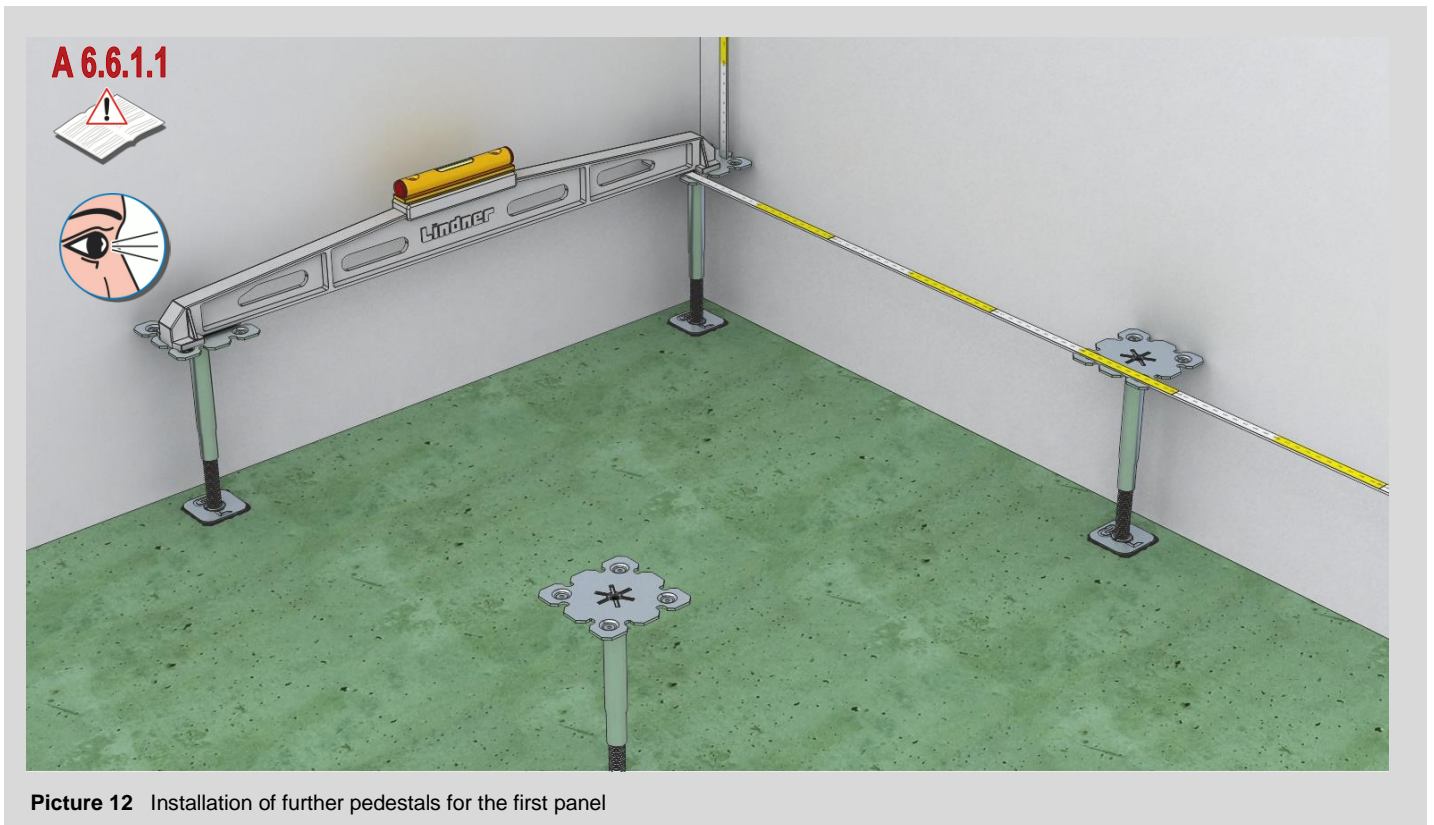
- A 6.5.2.1** Sound dampening pads can be used with increased requirements on the impact sound improvement. These are glued in between the base plate and the subfloor. 

Indications

- It is recommended to glue the sound dampening pads with pedestal glue to the base plate 24h prior to the installation in order to prevent a slipping of the pedestals with the hollow floor installation.
- The maximum nominal load with the use of sound dampening pads is 3 kN.

6.6. Pedestals for the first FLOOR and more® comfort panel

6.6.1. Installation of the pedestals

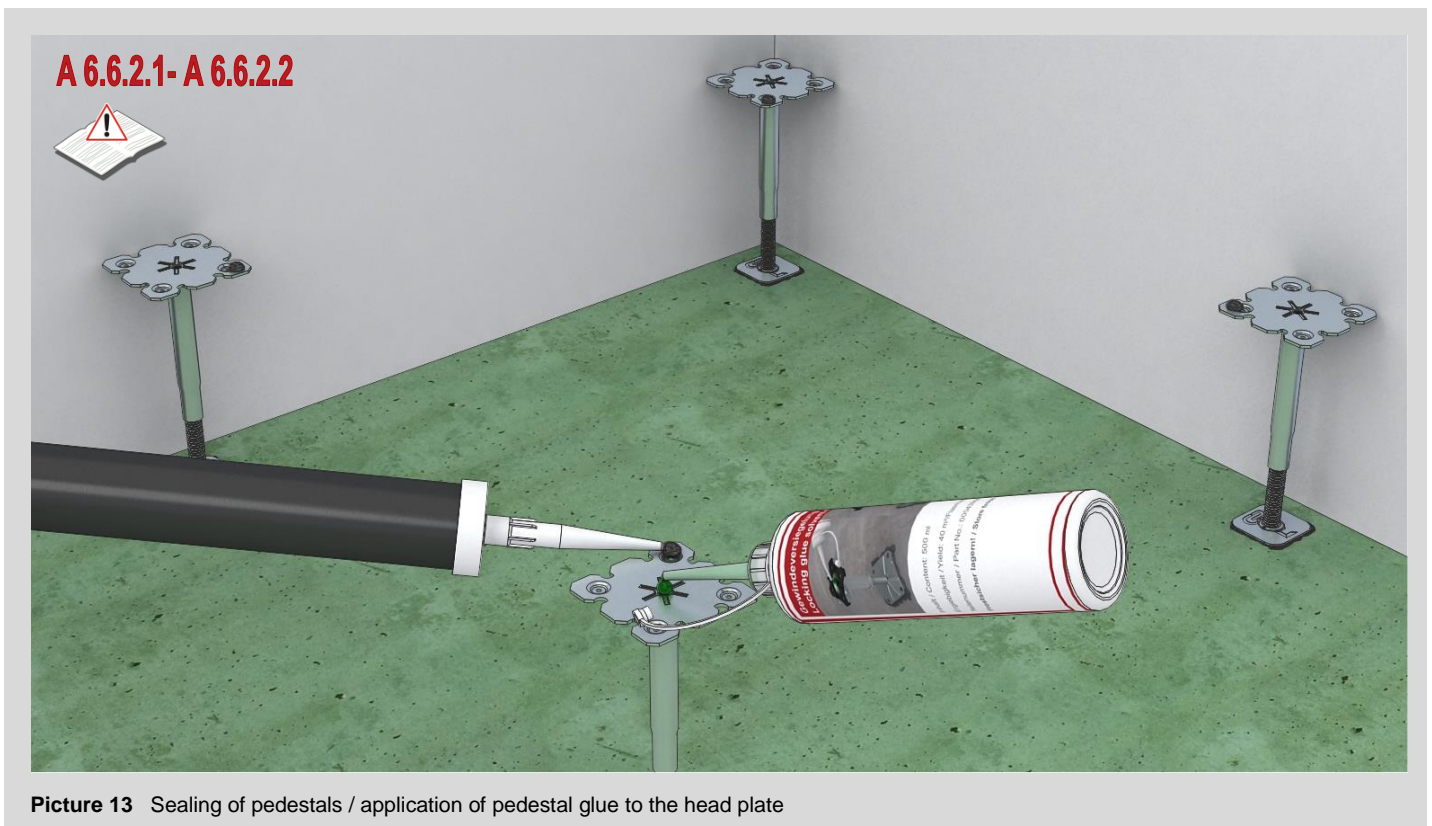


Work step:

A 6.6.1.1 Install the pedestals for the first FLOOR and more® comfort panel with the required grid dimension and level the pedestals on height.



6.6.2. Securing pedestals



Work steps:

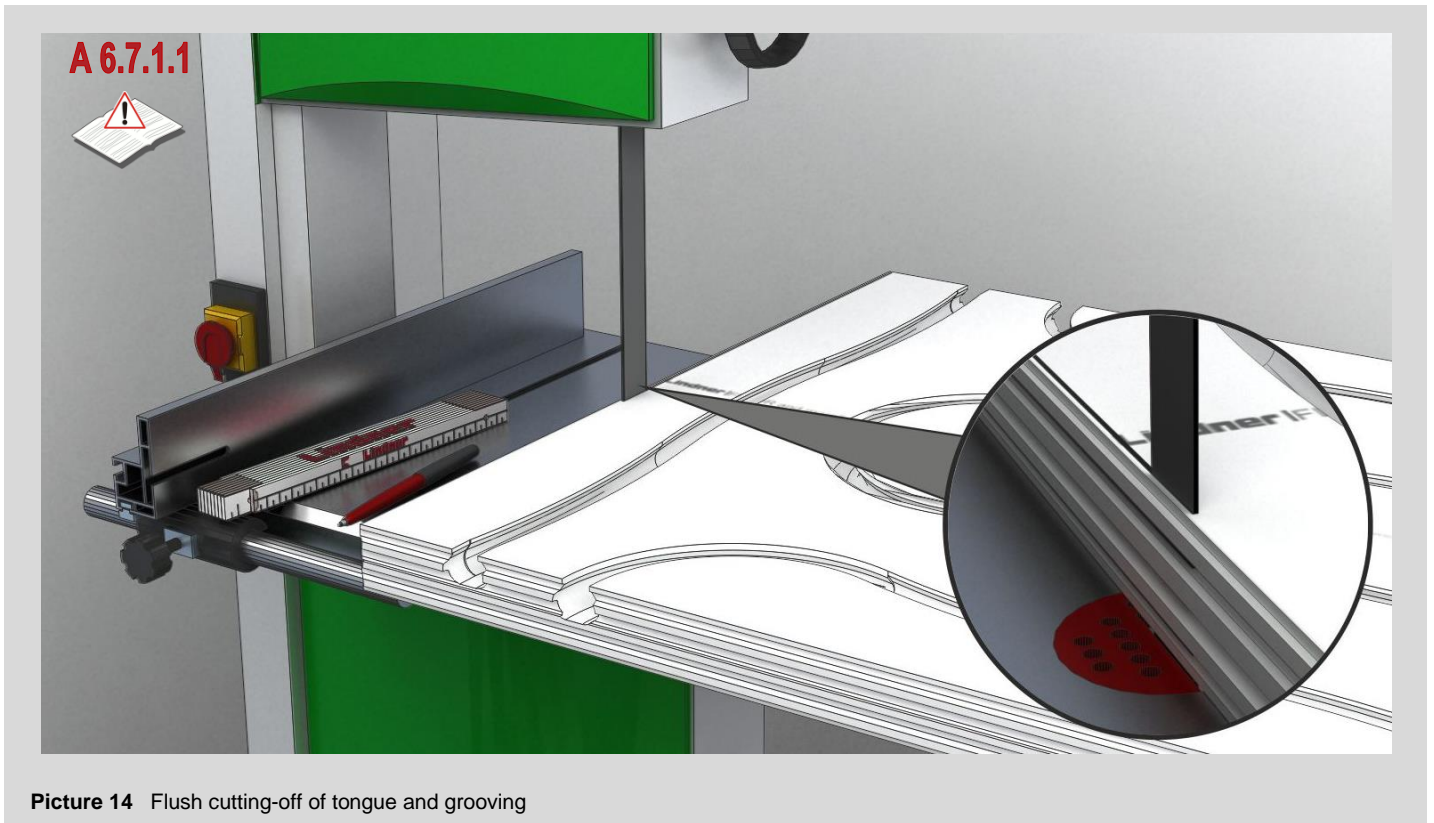
A 6.6.2.1 Securing of the pedestals against displacement with Lindner Locking glue as described in work step 6.4.  

A 6.6.2.2 Application of a small quantity of pedestal glue (peanut size) to the corner area of the pedestal head.  

Consider safety data sheet.


6.7. Wall connection

6.7.1. Cutting-off of tongue and grooving



Picture 14 Flush cutting-off of tongue and grooving

Work step:

A 6.7.1.1 The tongue and grooving has to be cut-off flush at panel edges which are connecting to a wall.  

WARNING

Danger of severe incised wounds.

- ➔ Machines may only be operated by qualified personnel. The valid accident prevention regulations have to be kept.

6.7.2. Sealing of cut edges

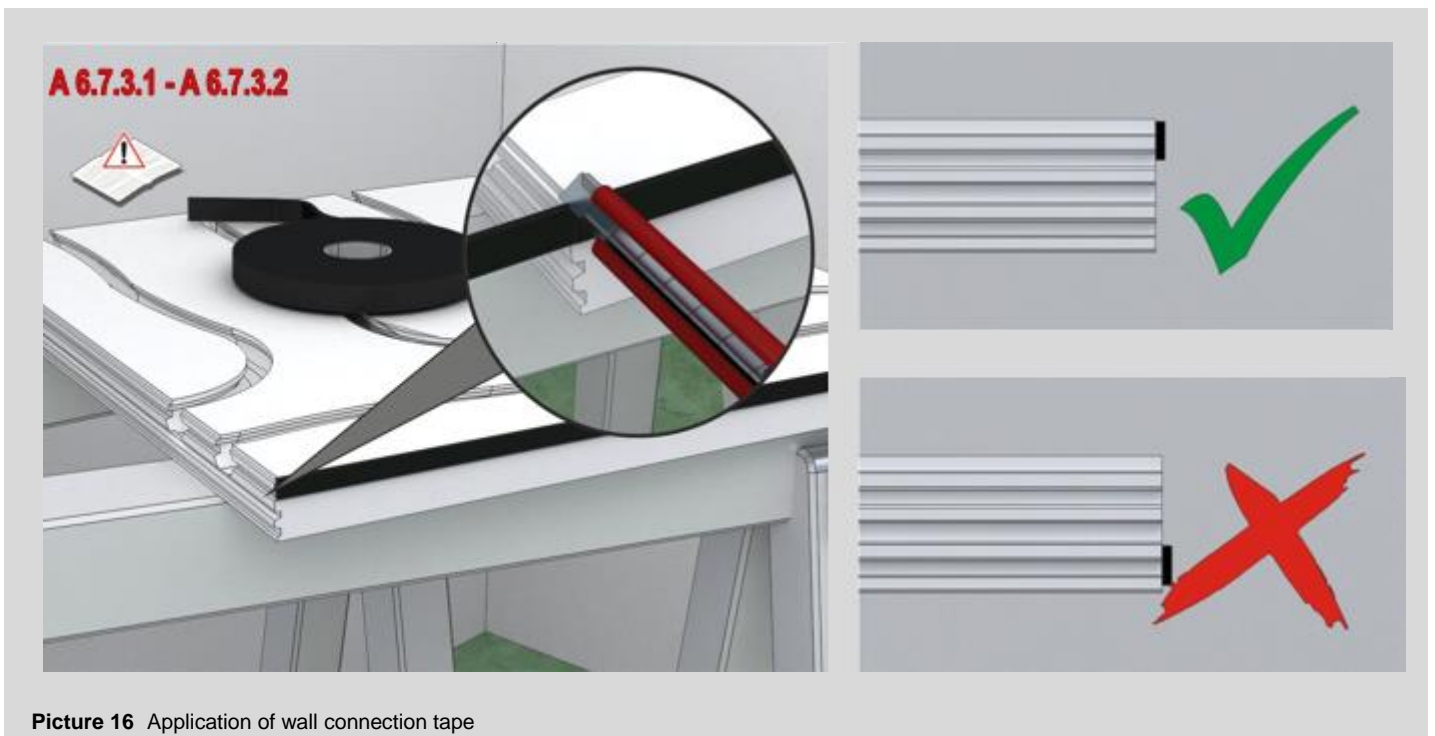


Work step:

- A 6.7.2.1** Apply Lindner Edge sealant with a brush and let it dry.
The drying time is about 5 to 15 min. depending on room climate.




6.7.3. Application of wall connection tape



Picture 16 Application of wall connection tape

Work steps:

A 6.7.3.1 Unroll wall connection from the roll and attach it with the adhesive side flush to the upper edge of the panel (two sides on corner panels). 

A 6.7.3.2 Cut the wall connection tape acc. to the edge length of the panel. 



Indication

- A wall connection tape has to be attached to panel edges with connection to a wall.
- **Important:** There are different variants for the execution of the wall connection (e.g. with fire resistance performance requirements or stone coverings) – see document “Design of wall connections FLOOR and more® comfort”.

WARNING

Inappropriate use of a cutter can cause incised wounds or severe injury.

- ➡ Always cut away from the body.

6.8. Installation of the first FLOOR and more® panel



Work steps:

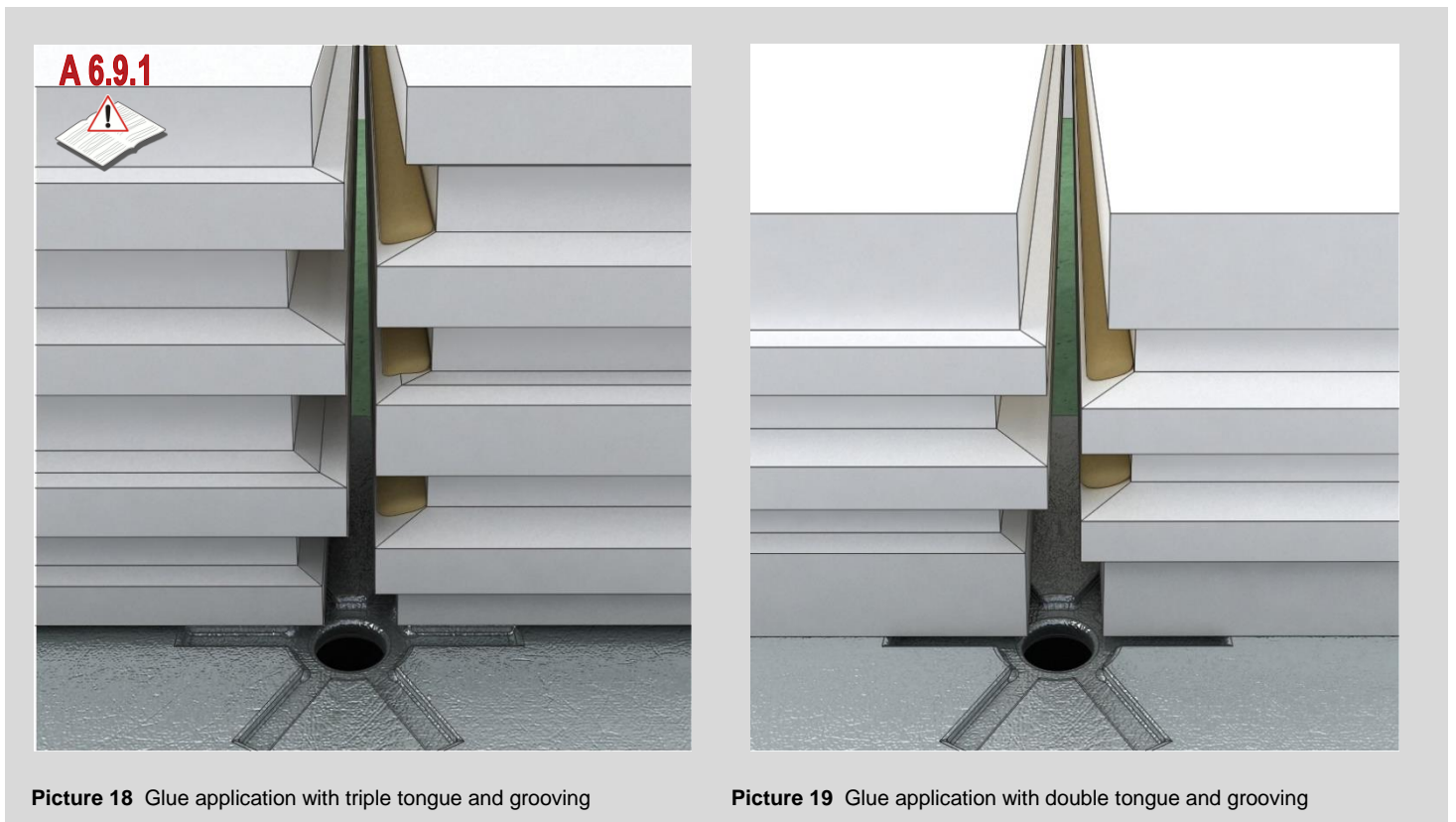
A 6.8.1 Place the panel on the installed hollow floor pedestals.

A 6.8.2 Check panel with raised floor water level in both directions and adjust the pedestals if necessary.

Indication

- FLOOR and more® logo on the upper side of the panel sets the direction of installation.


6.9. Panel gluing



Picture 18 Glue application with triple tongue and grooving

Picture 19 Glue application with double tongue and grooving

Work step:

- A 6.9.1** Apply Installation glue to each full tooth. Thereby the glue needs to be applied to the front area of the tooth. Do not apply the glue into the groove. The glue line needs to be applied on the full length of the panel. Remove leaked glue after the assembly of the panels. 

ATTENTION

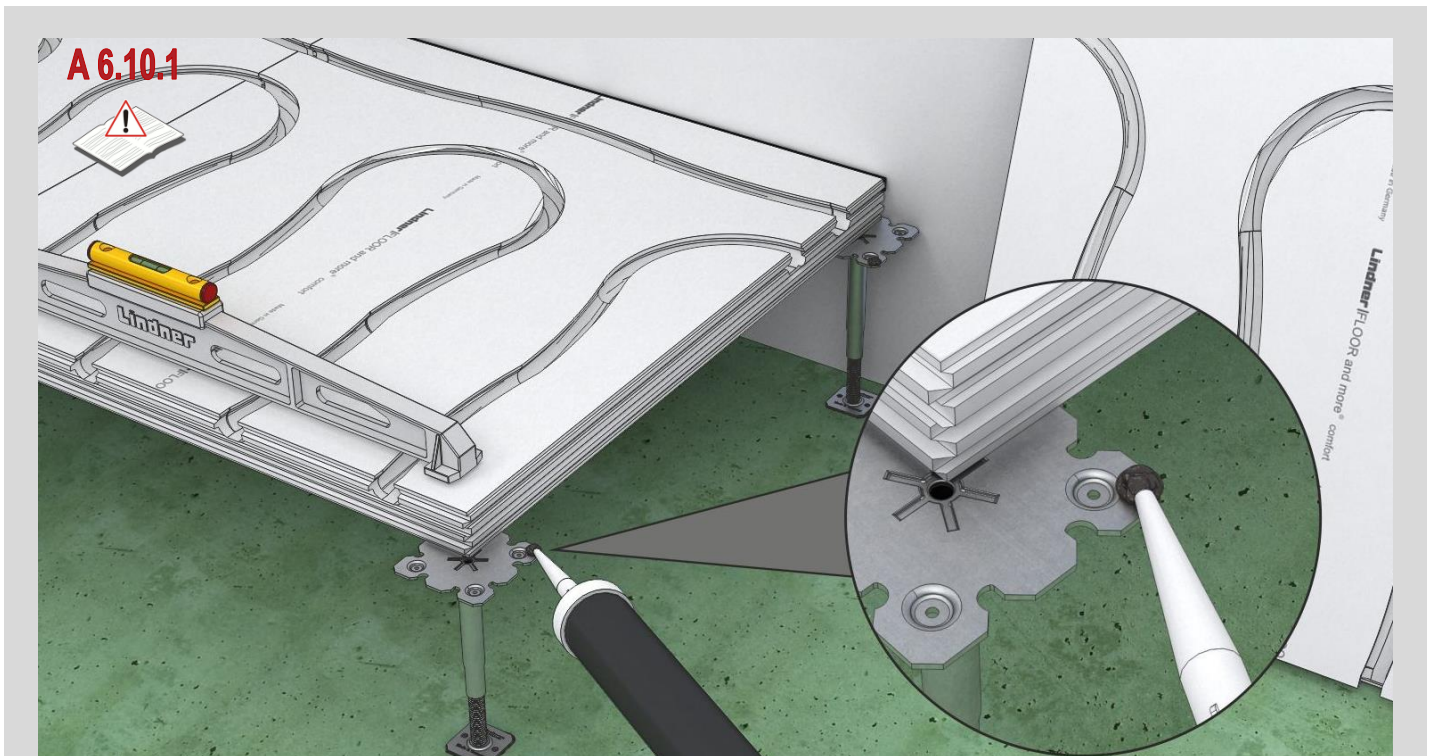
Inappropriate gluing
Use of non-approved or not recommended adhesives

- ➔ The static properties of the floor system cannot be guaranteed anymore.

Indication

- After the assembly of the panels, they can be pulled apart once again in order to check the holohedral application of the joint.
- FLOOR and more® is equipped with a triple tongue and grooving from a panel thickness of 40 mm.

6.10. Gluing panel to the pedestal head



Picture 20 Installation of the first row of panels

Work step:

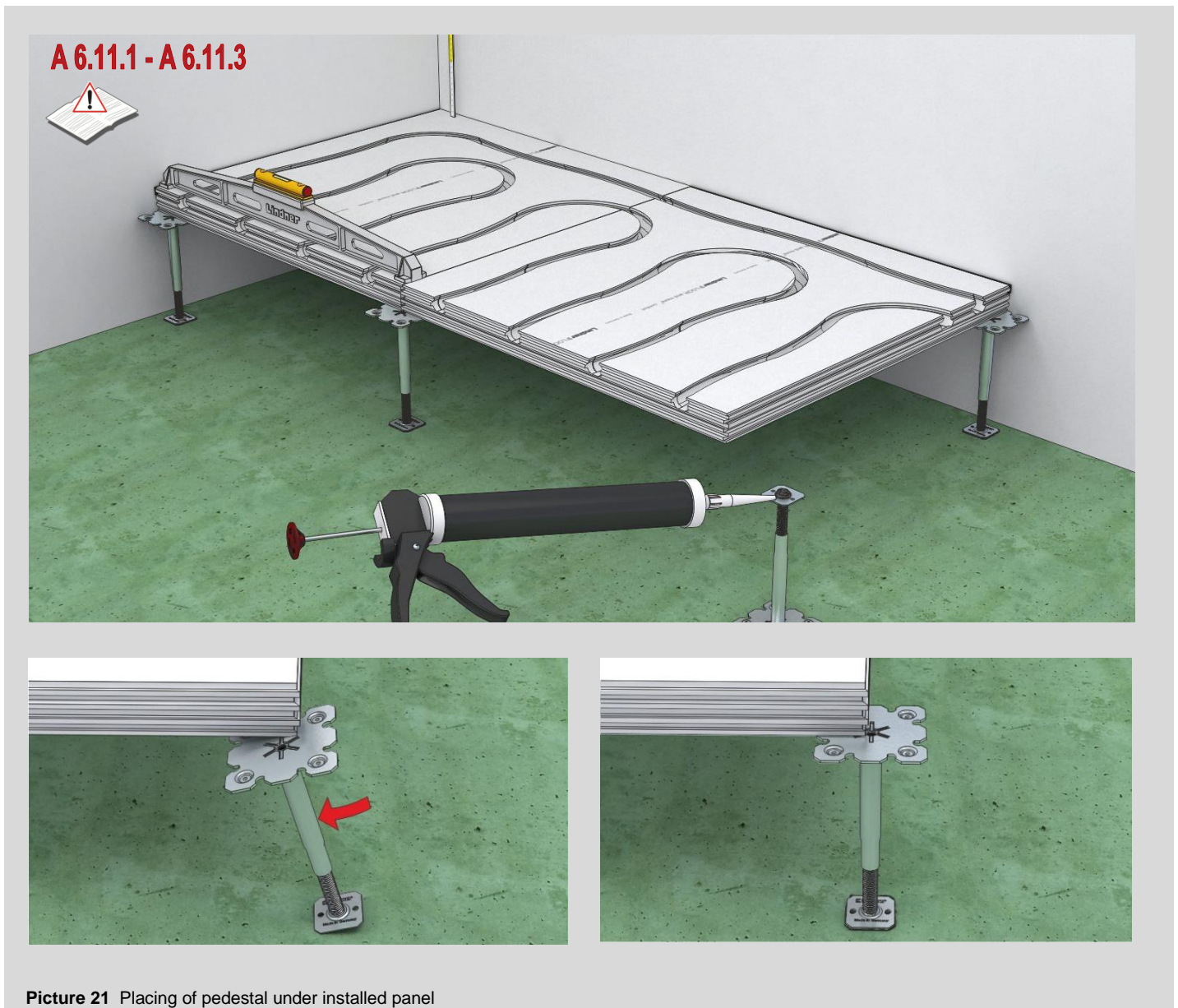
- A 6.10.1** Apply a small quantity of pedestal glue (peanut size) to the corner area of the head plate. It has to be paid attention that no glue gets in or on to the tongue and grooving. 

ATTENTION

Pedestal glue in / on the tongue and grooving

- ➔ The panels cannot be pushed together exactly.

6.11. Installation of following panels



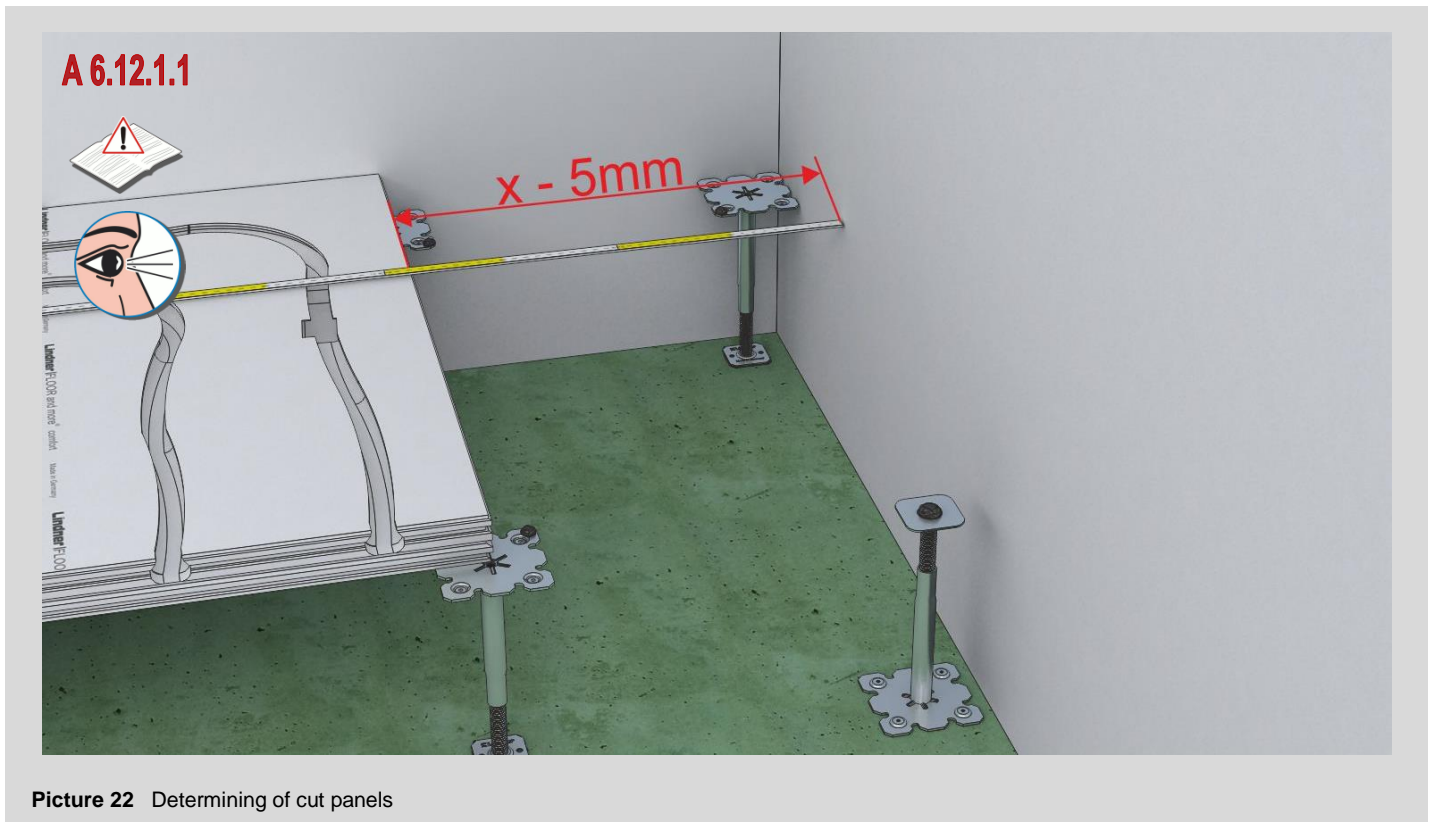
Work steps:

- A 6.11.1** Adjust pedestals without glue to the clear height of the FLOOR and more® comfort.
- A 6.11.2** Apply pedestal glue to the base plate as described in work step A 6.3.1 and to the head plate as described in work step A 6.10.1.
- A 6.11.3** Placing of the pedestal as shown in Picture 21.
- A 6.11.4** Readjust pedestals if necessary. Turn the adjustment nut in case of pedestal type with adjustment nut or turn the lower part of pedestals with threaded tube.



6.12. Preparing cut panels

6.12.1. Measuring of the cut panel



Work step:

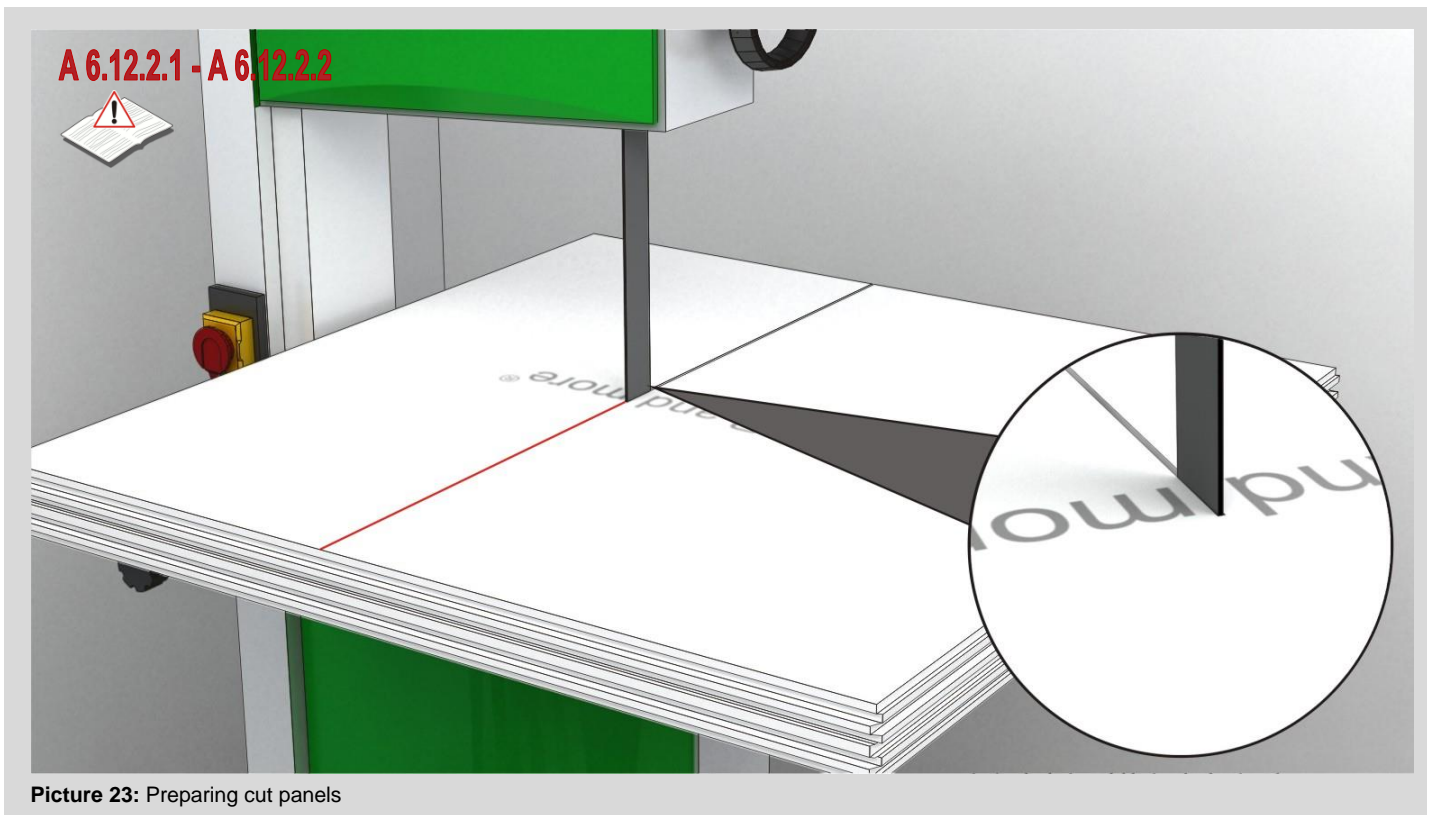
- A 6.12.1.1** Measure the size of the cut panels in order to determine the respectively required panel format. Cut the panel 5 mm smaller than measured to form a peripheral joint.

ATTENTION

Consider the system specification in the peripheral area!

- ➔ The load class is not valid with non-compliance.

6.12.2. Cutting of cut panel



Work steps:

A 6.12.2.1 Marking of the required panel size and line of cut.

A 6.12.2.2 Cut along the line of cut with a band saw.

WARNING


Danger of severe incised wounds.

- ➔ Machines may only be operated by qualified personnel. The valid accident prevention regulations have to be kept.

6.12.3. Application of wall connection tape



Work steps:

- A 6.12.3.1** Apply Lindner edge sealant with a brush acc. to the technical data sheet and let it dry on surface.
- A 6.12.3.2** Unroll the wall connection tape and glue it with the adhesive side flush to the upper edge of the panel (two sides on corner panels).
- A 6.12.3.3** Cut the wall connection tape to the edge length of the panel. 



Indications

Important: There are different variants for the execution of the wall connection (e.g. with fire resistance performance requirements or stone coverings) – see document “Design of wall connections FLOOR and more®”.

WARNING

Inappropriate use of a cutter can cause incised wounds or severe injury.

- ➔ Always cut away from the body.

6.13. Installation of perimeter pedestals



Work steps:

A 6.13.1 Installation of perimeter pedestals acc. to work steps 6.3 to 6.5.



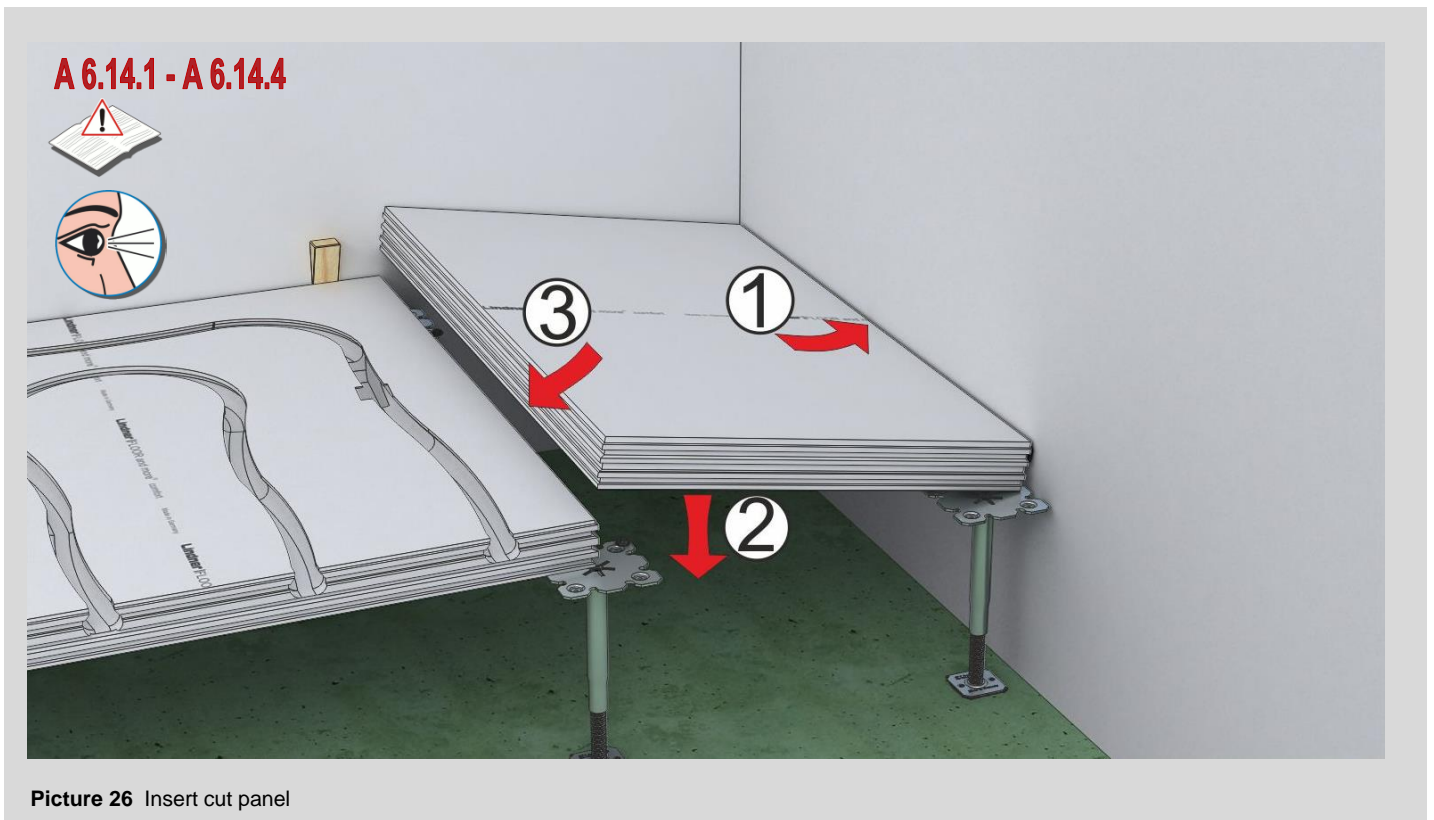
A 6.13.2 Preparation of the perimeter panel acc. to work step 6.7.





Indication

- Consider required pedestal grid at the perimeter of the room.

6.14. Insert cut panel



Work steps:

- A 6.14.1** Secure pedestal against height displacement as described in work step 6.6.2.
- A 6.14.2** Apply pedestal glue to the pedestal head as described in work step 6.10.
Consider safety data sheet.
- A 6.14.3** Apply FLOOR and more® installation glue to the panel as described in work step 6.9.
- A 6.14.4** Insert panel as shown on picture 26.  

6.15. Checking the first row of panels



Work step:

A 6.15.1 Check permanently as described in work step 6.8 and 6.17.





Indications

- **Important:** Please make sure that the first row of panels is adjusted exactly as the further installation of the floor is based on it!
- The row of panels can be installed with wedges in order to make the installation easier. The wall connection tape needs to be left out in the areas where wedges are used.

6.16. Drying of first row of panels

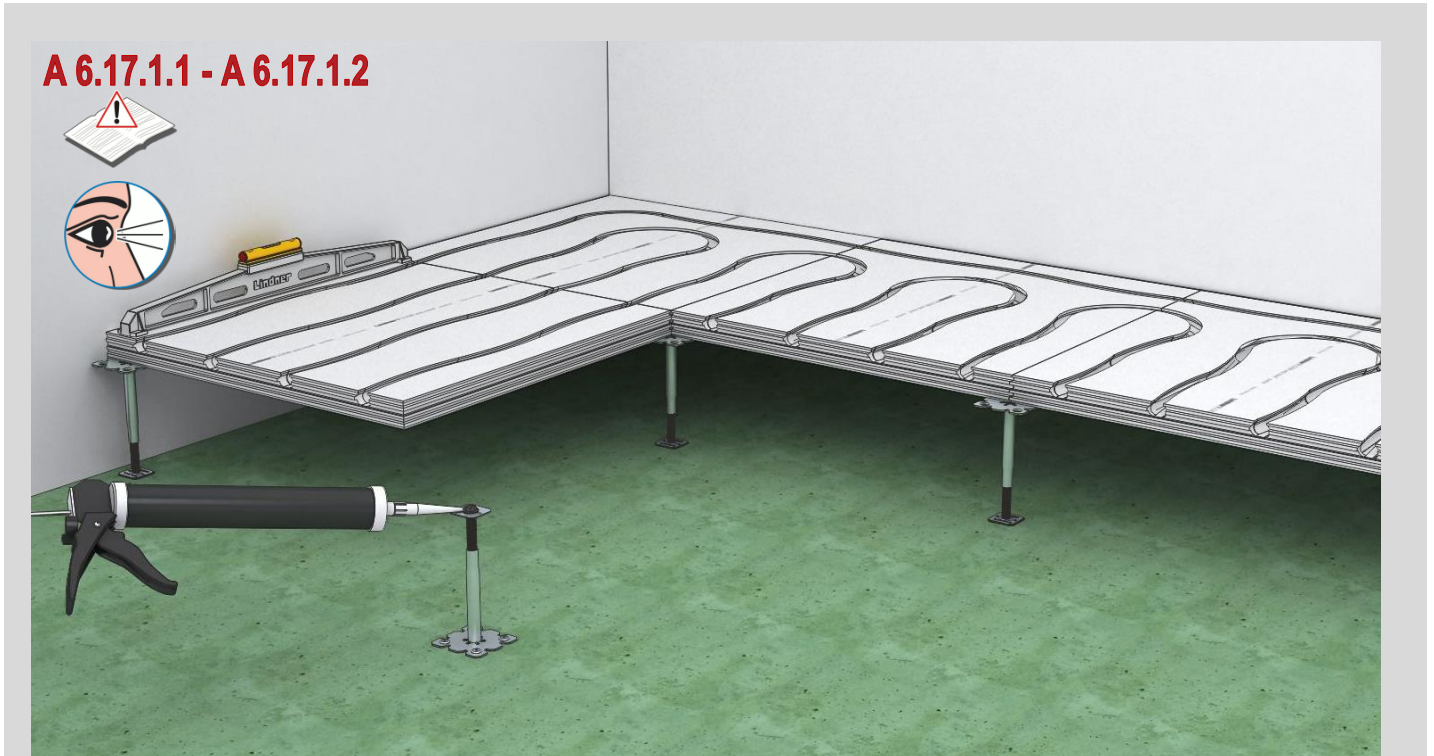


Work step:

A 6.16.1 If possible, let the first row of panels dry.  

6.17. Installation of further FLOOR and more® comfort panels

6.17.1. Installation of second row of panels



Picture 29 Installation of second row of panels

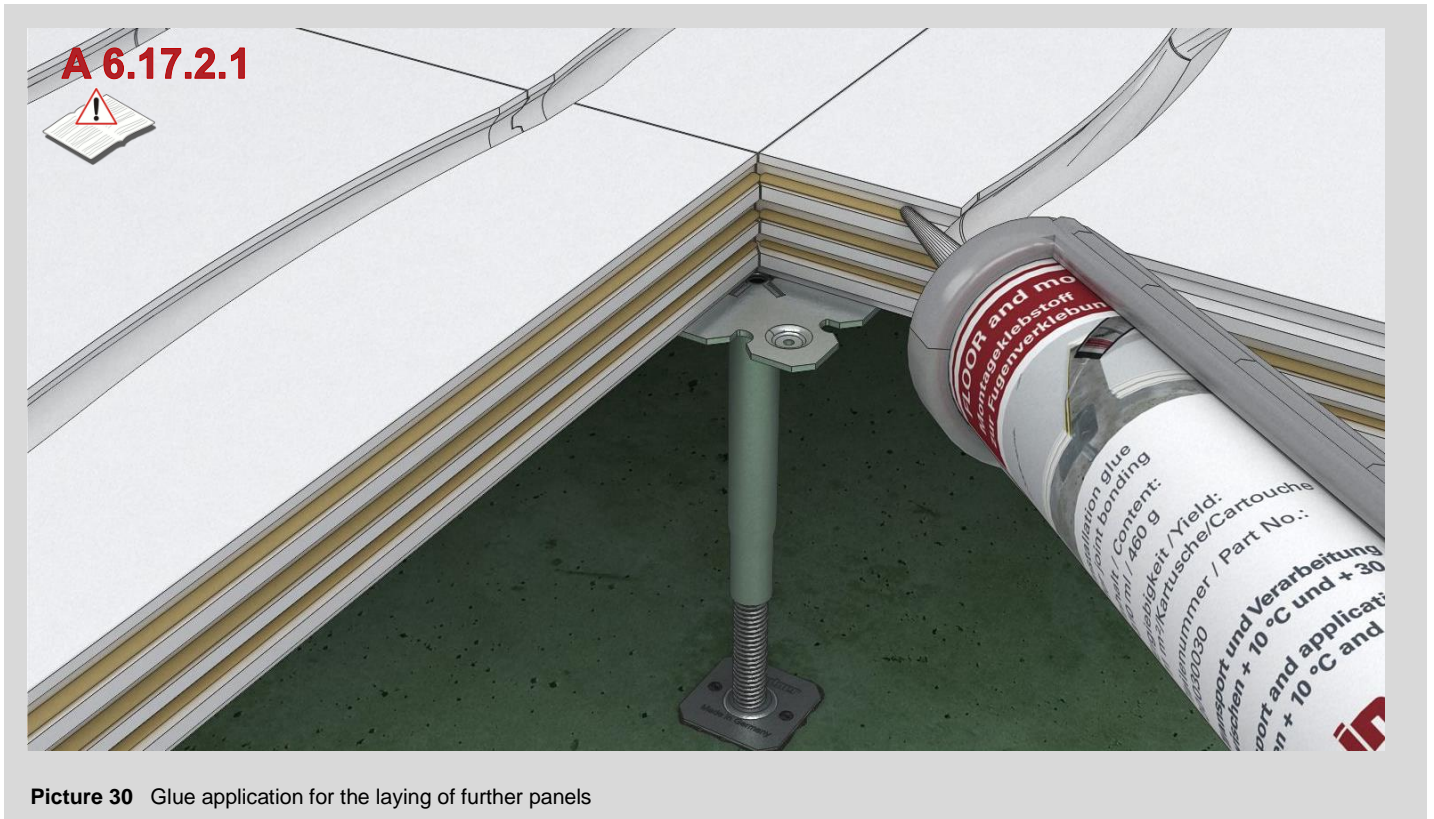
Work step:

A 6.17.1.1 Install, check and eventually readjust the first panels of the second row of panels as described in work step 6.8.

A 6.17.1.2 Install fourth pedestal as described in work step 6.10 and 6.11. Do **not** lift the panels while inserting the pedestal!



6.17.2. Gluing of panels



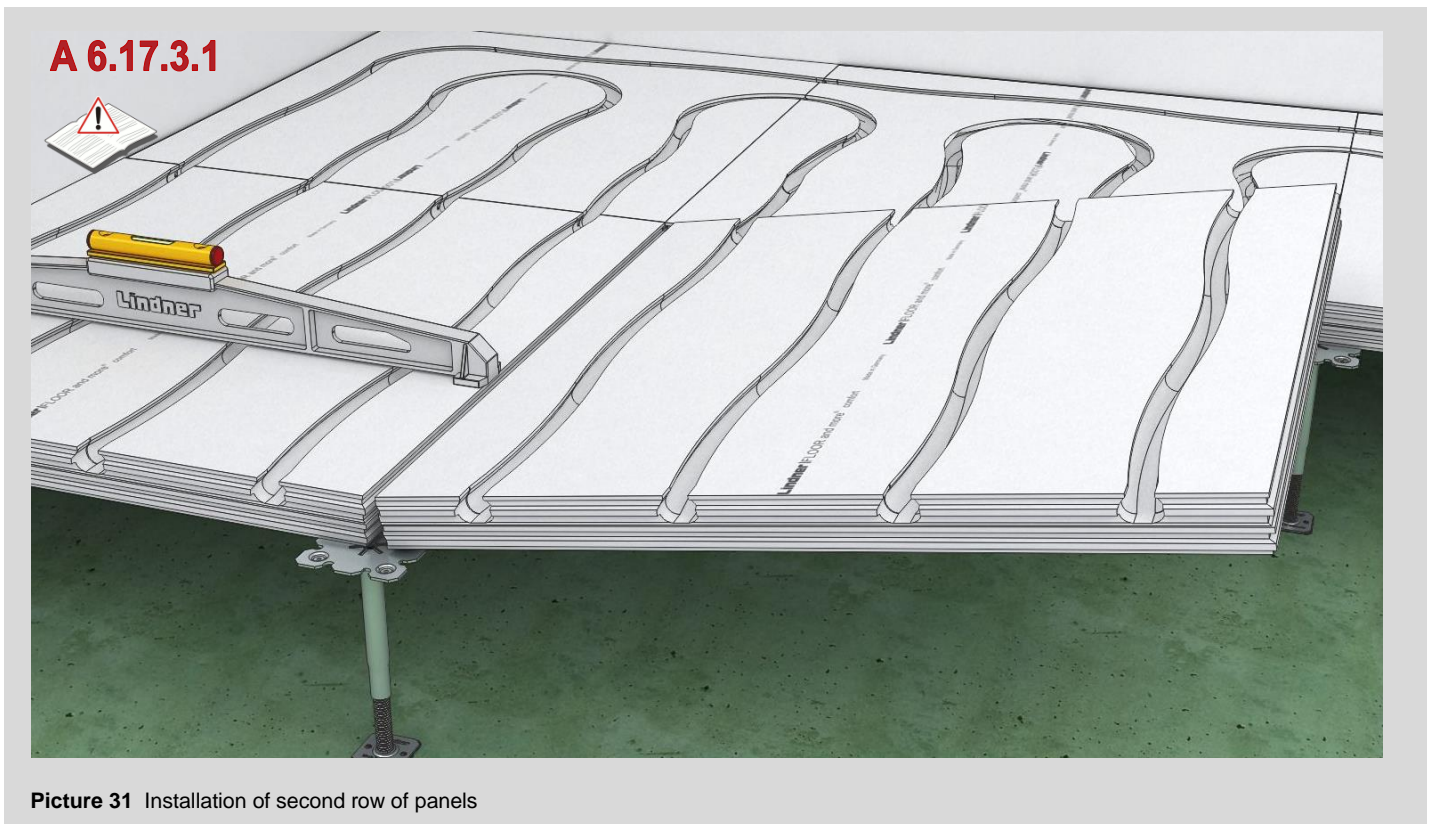
Work step:

A 6.17.2.1 Glue further panels as described in work step 6.9.



Consider safety data sheet.



6.17.3. Installation of panels



Work step:

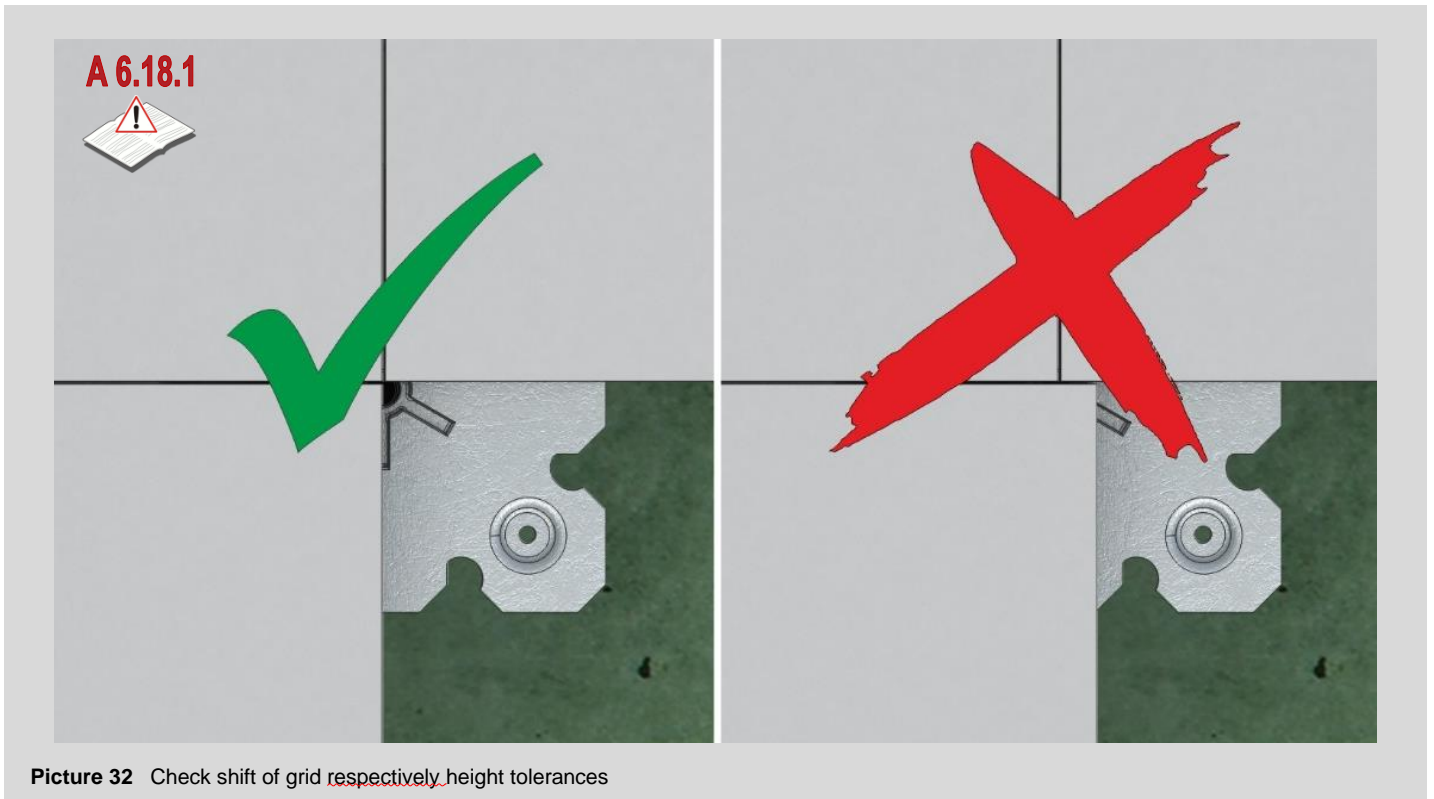
A 6.17.3.1 Install and adjust the second row of panels as described in work steps 6.3 to 6.14.  

Indication

- Check height reference points with laser or water level every 30 to 50 sqm.

6.18. Check shift of grid and height tolerances

The work step mentioned in this chapter needs to be done during the complete installation.

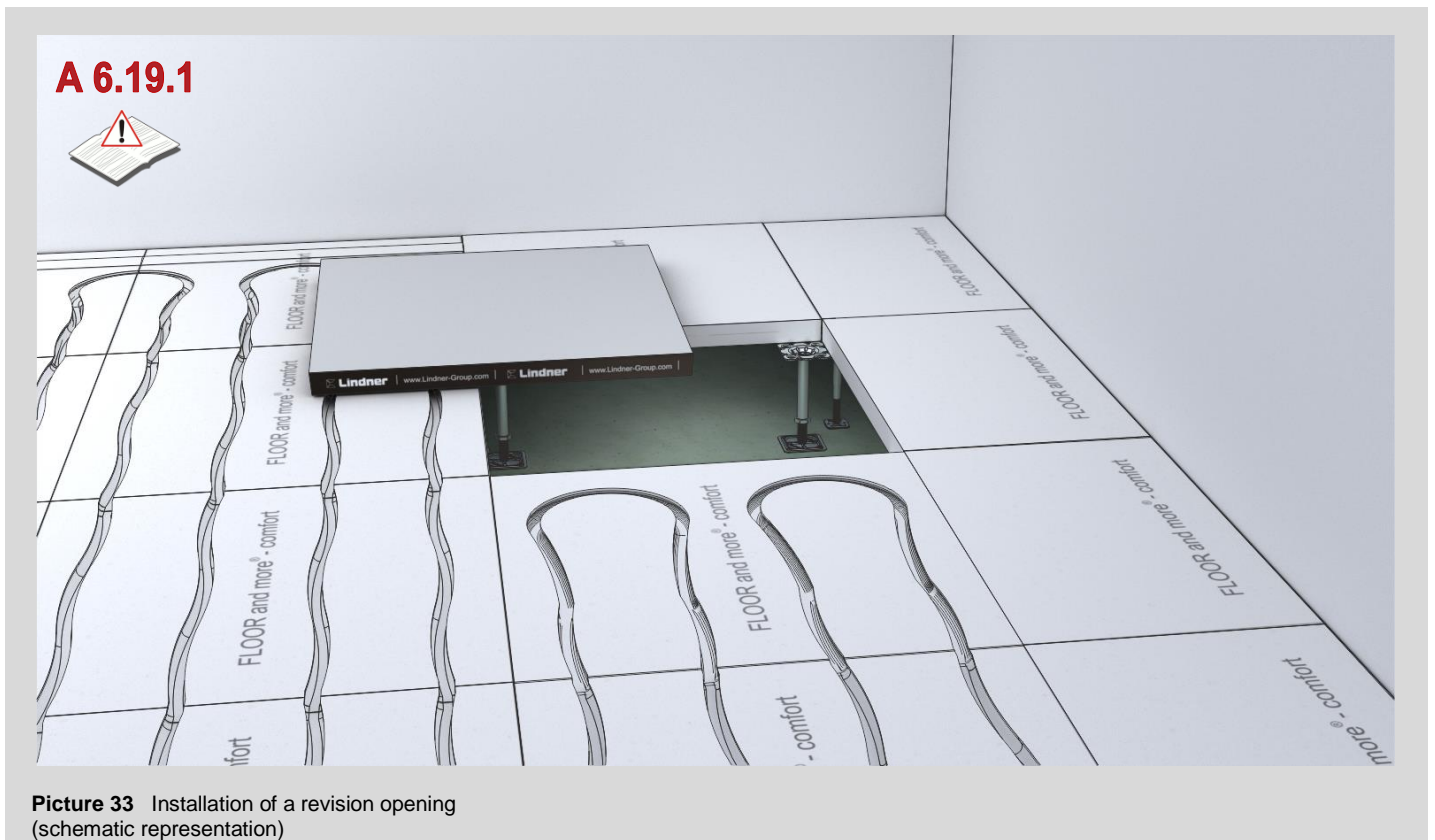


Work step:



A 6.18.1 Check shift of grid and adjust if necessary to eliminate any shifting of grid.



6.19. Revision opening



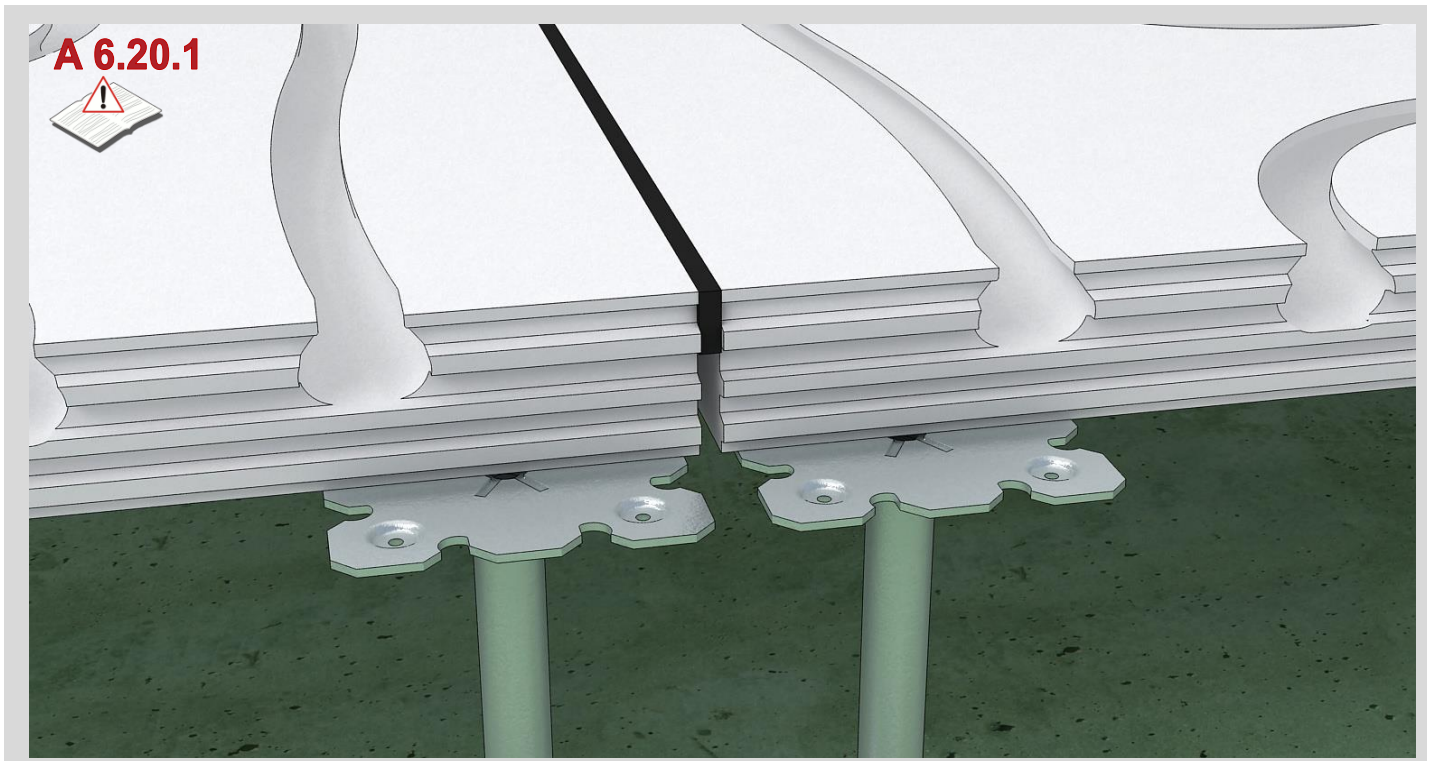
Work step:

- A 6.18.1** Create an opening for placing a raised floor panel during installation or by cutting out later.  

Indications

- Acc. to the covering type, each revision opening can be optionally made with an aluminium frame and a covering separation rail.

6.20. Forming a joint



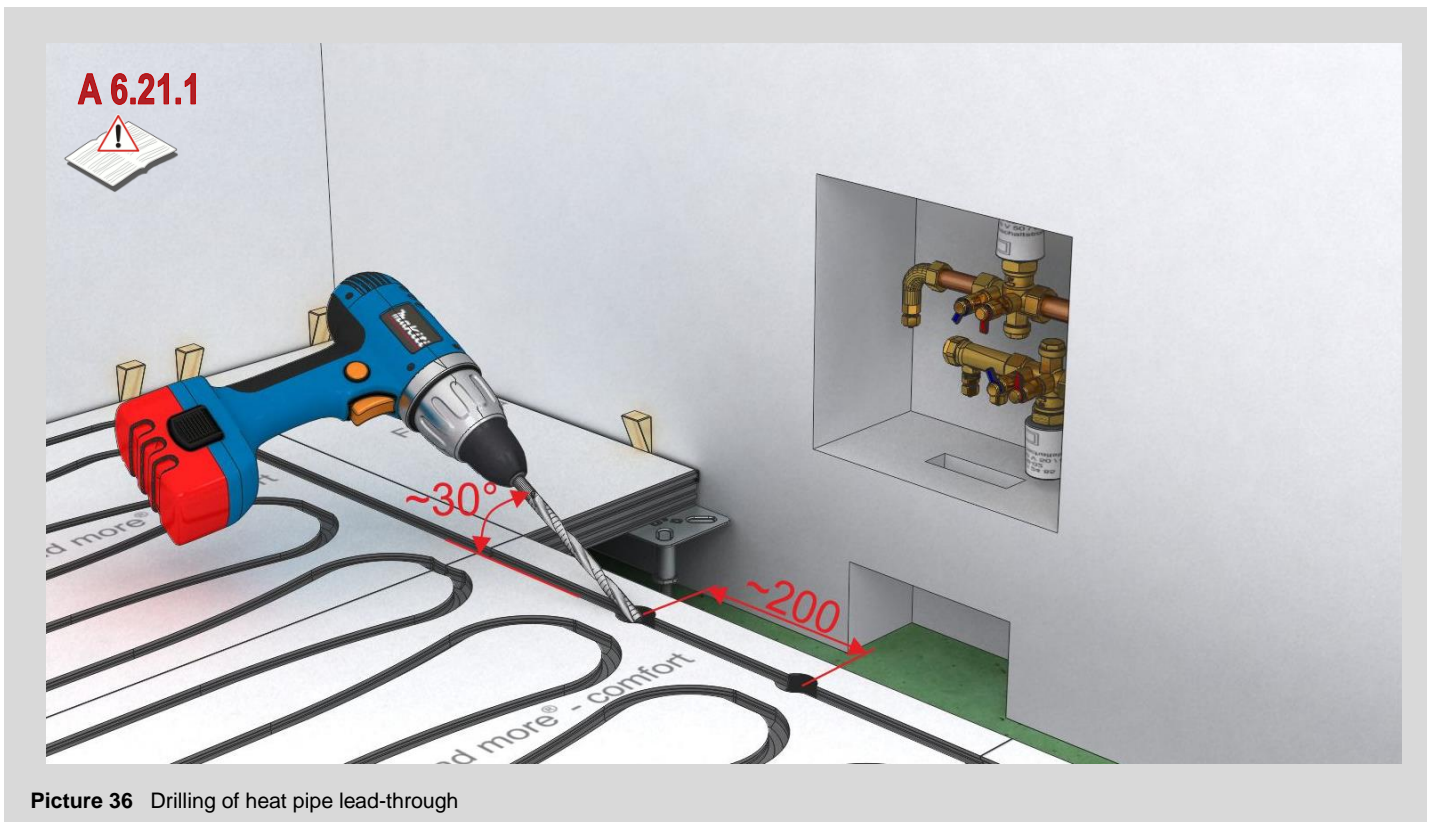
Picture 35 Creating a joint

Work steps:

- A 6.20.1** Cut-off the tongue and grooving flush at both panels as in work step 6.7.1.
- A 6.20.1** Apply a wall connection tape to one panel as in work steps 6.7.2 and 6.7.3.



6.21. Heat tube lead through



Picture 36 Drilling of heat pipe lead-through

Work steps:

- A 6.21.1** Drill as described in picture 36. The hole diameter should be about 1 mm bigger than the pipe diameter.

Hinweis

- To avoid bending of the heat pipe, we recommend to enlarge the lead-through on the bottom side of the panel towards heat circuit valve.

6.22. Cleaning of heat tube admission



Picture 37 Clean grooves for heat tube admission

Work steps:

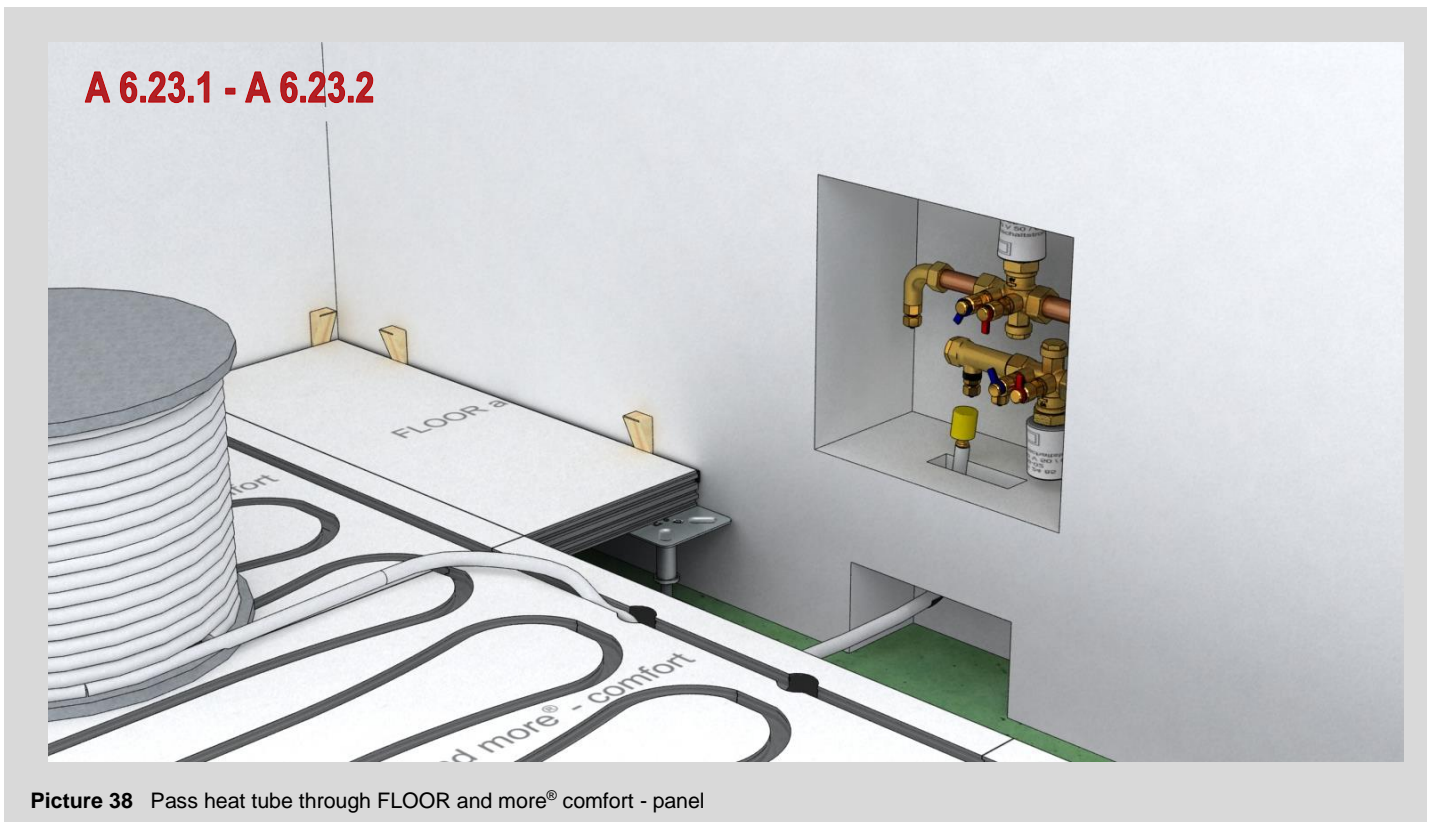
- A 6.22.1** Remove adhesive residues.
- A 6.22.2** Milled grooves are to be vacuum cleaned.

WARNING

Inappropriate use of a cutter can cause incised wounds or severe injury.

- ➡ Always cut away from the body.

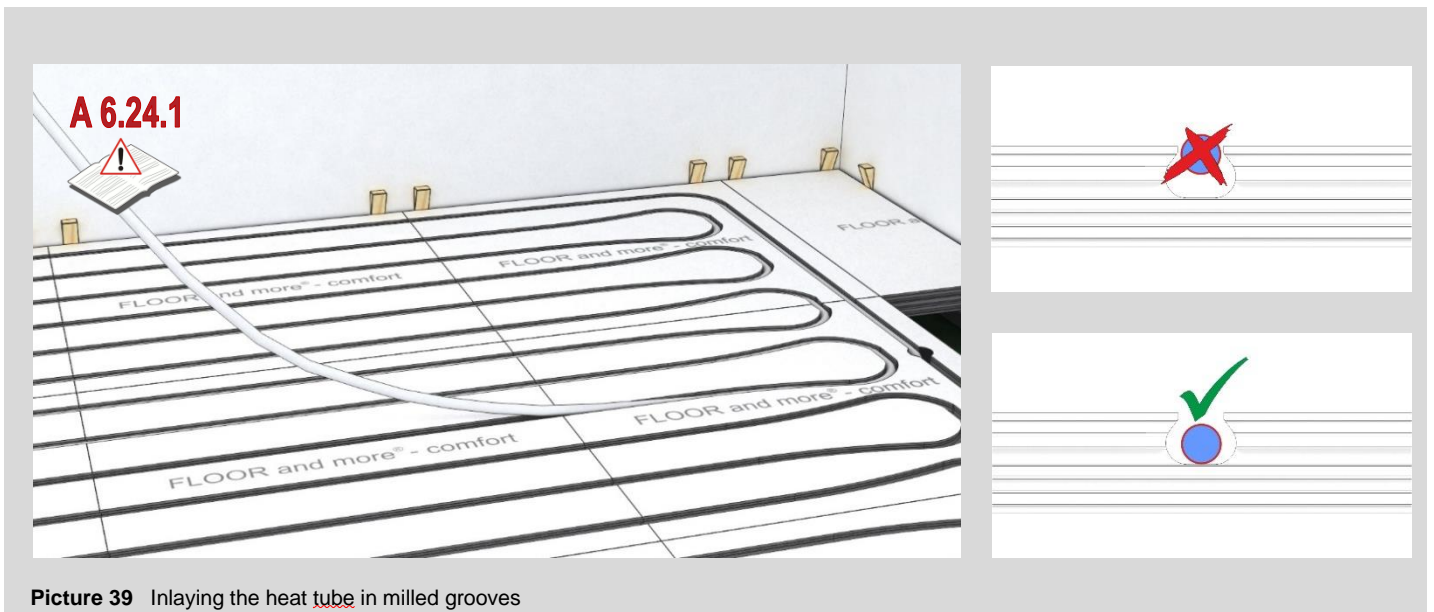
6.23. Lead through to heat supply valve



Work steps:

- A 6.23.1** Pass the end of the heat tube through the drilled hole and connect it to the supply valve with a proper fitting.
- A 6.23.2** To strengthen the 90° bending of the pipe at the connection point, install angle clip.

6.24. Inlaying the heat tube



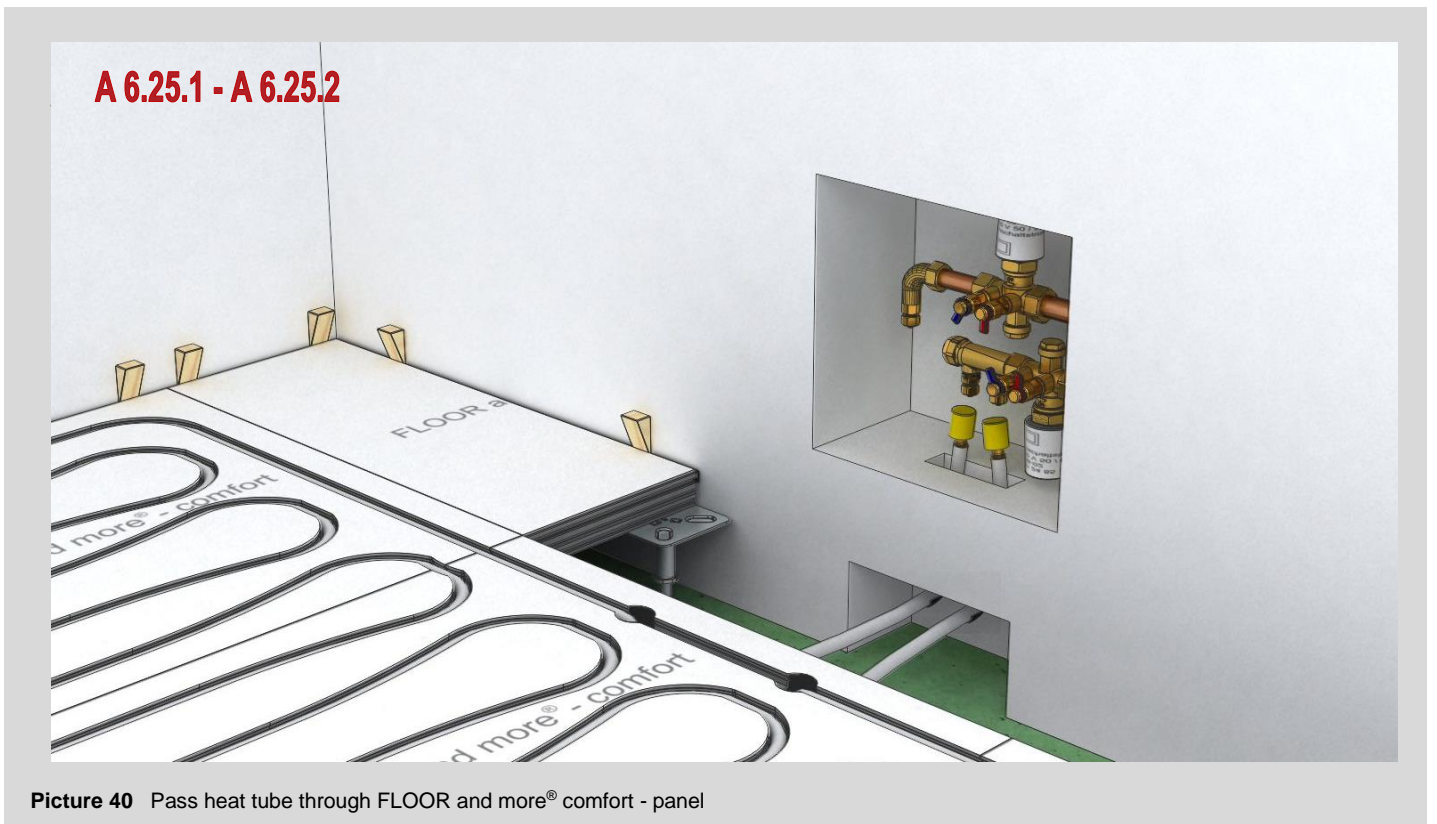
Picture 39 Inlaying the heat tube in milled grooves

Work steps:

A 6.24.1 Put the heat tubes into the grooves.

Be sure to put the heat tube all the way into the groove to guarantee a sufficient covering of the tube by the Lindner filler.

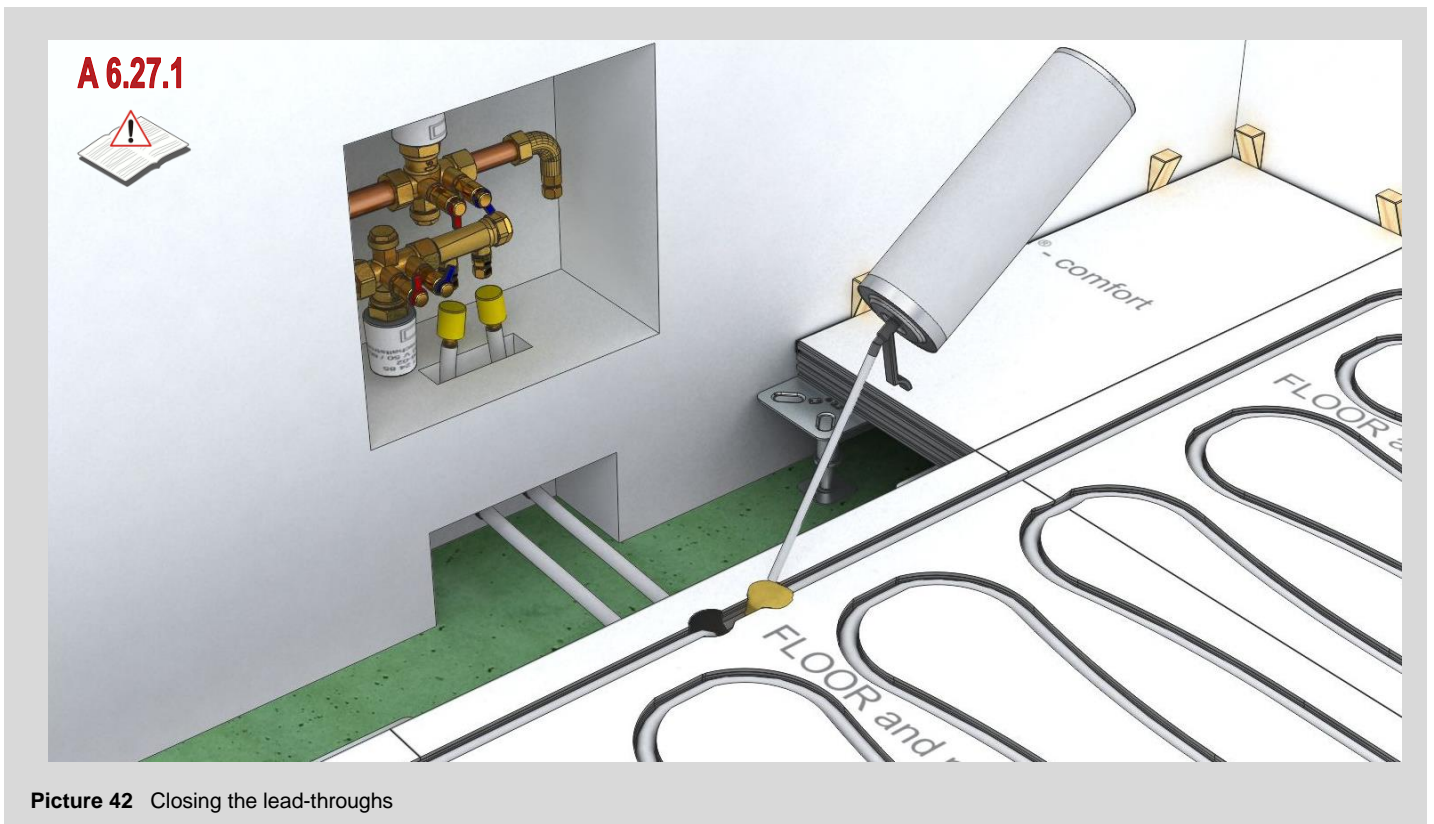
6.25. Lead-through recirculation



Work steps:

- A 6.25.1** Pass end of tube through the drilled lead-through and connect with a proper fitting to the return at the manifold.
- A 6.25.2** To strengthen the 90° bending of the pipe at the connection point, install angle clip.

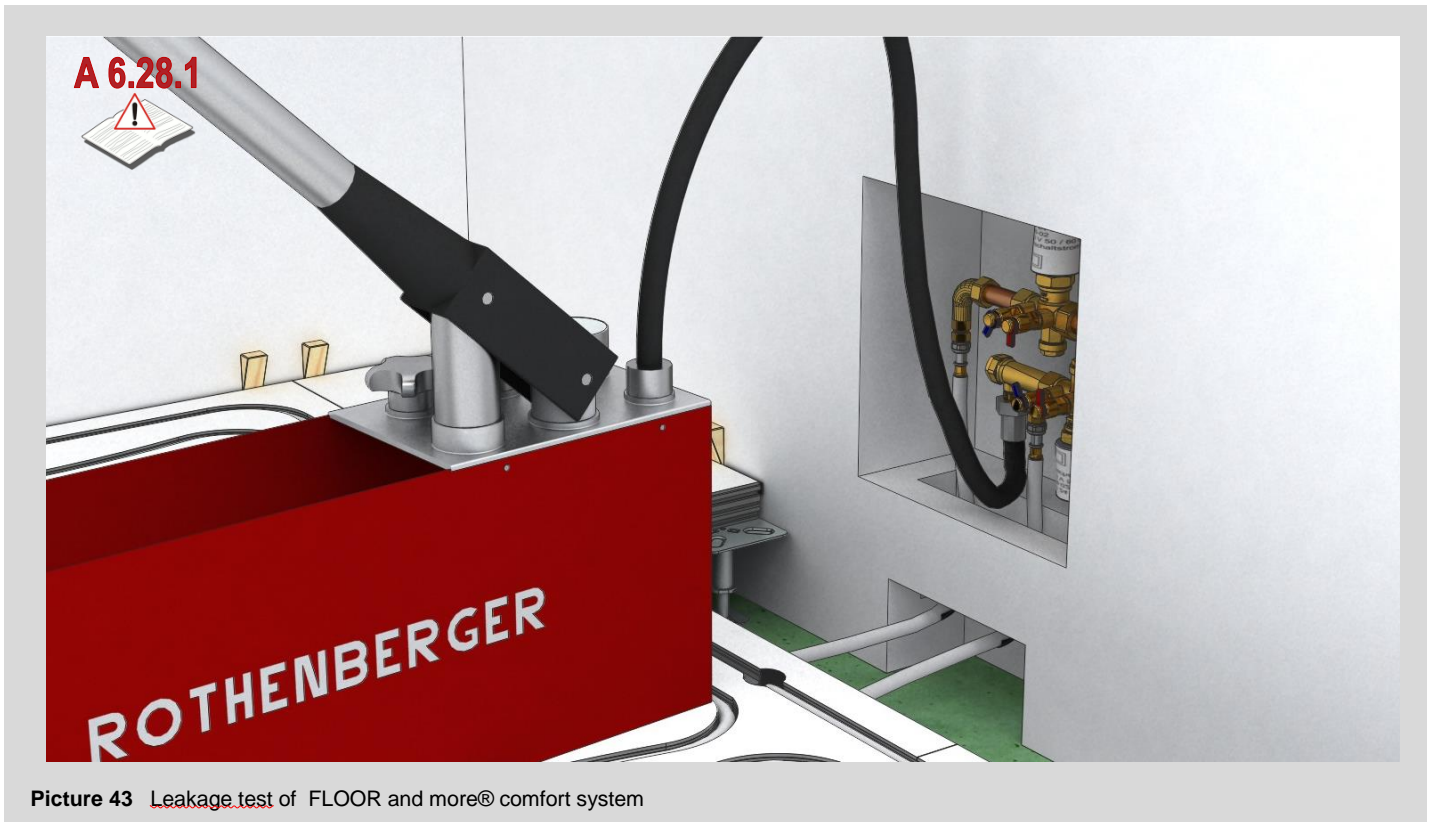
6.27. Closing the lead-throughs



Work step:

- A 6.27.1** Close the lead-throughs for the heating tubes with PU foam. Cut-off flush to the surface after drying.

6.28. Leakage testing



Work steps:

- A 6.28.1** Execute a leakage test. The pressure (min.4 bar max. 6 bar) of the leakage test has to be maintained during the filling of the grooves with the heating tubes.
- A 6.28.2** A test report printout (fo-sb-059) has to be issued.

6.29. Sealing the heat tubes

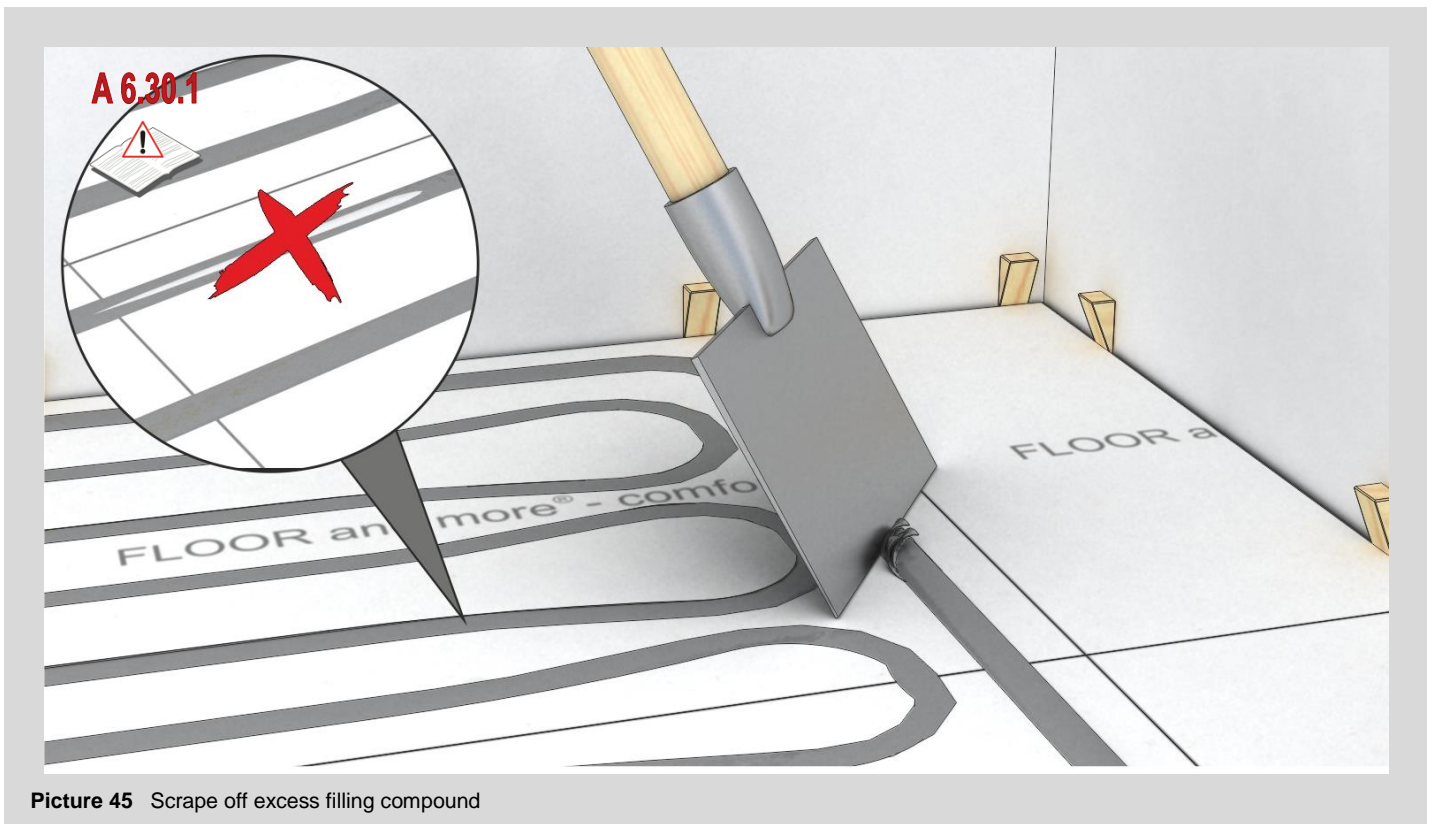


Work step:

- A 6.29.1** Seal heat tubes with Lindner filler compound for FLOOR and more® comfort. For smaller areas you can also use a watering can. It is recommended to seal the tubes in two work steps, because the filler settles a bit. The surface to be sealed should be limited to only one heat circuit.

Indications
<ul style="list-style-type: none"> Consider mixing proportion according to manufacturer.

6.30. Scrape off excess filling compound

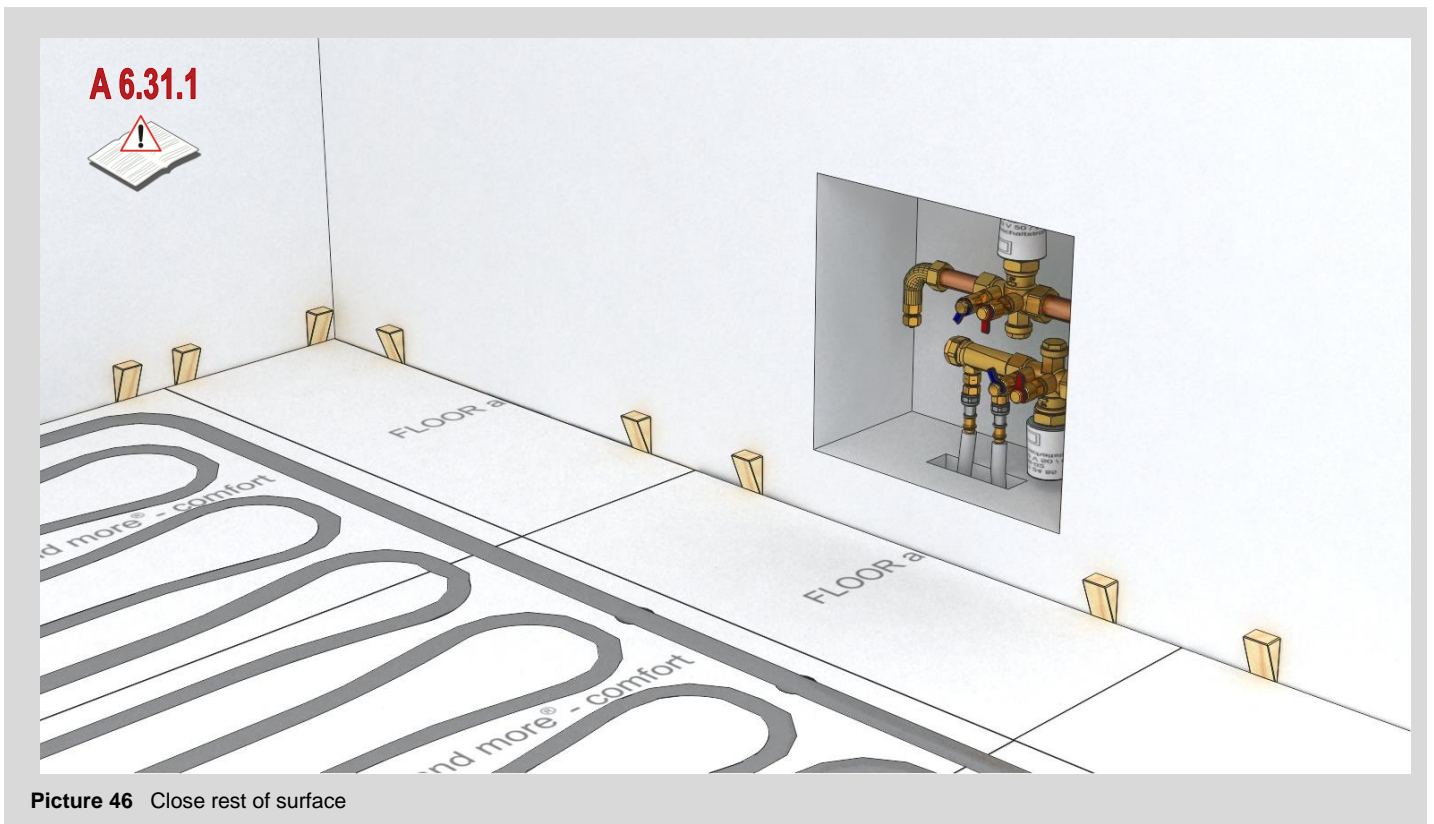


Picture 45 Scrape off excess filling compound

Work step:

- A 6.30.1** Remove the slightly dried excess filling compound flush by means of a floor scraper.

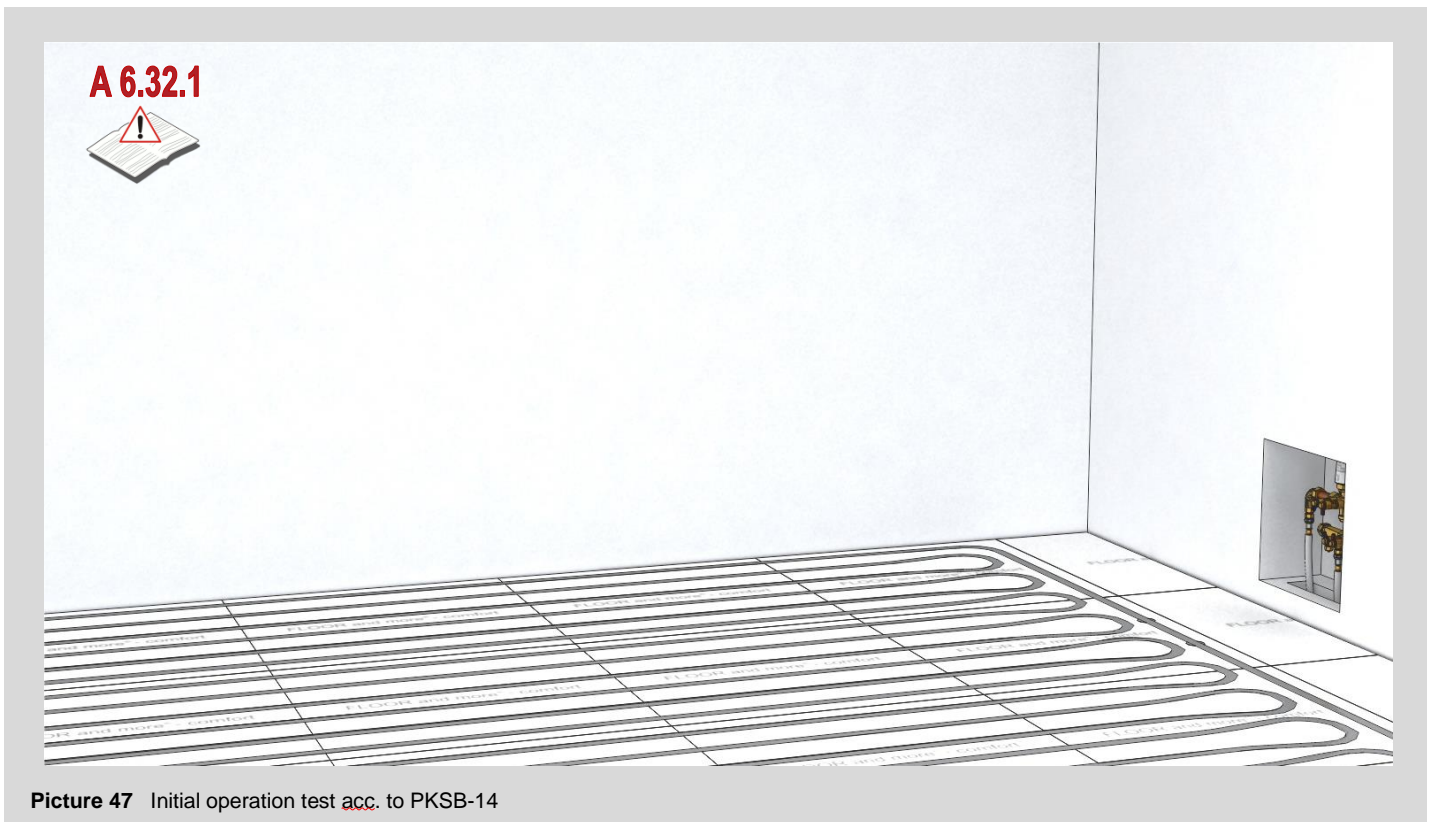
6.31. Close surface



Work steps:

A 6.31.1 Close remaining surface with FLOOR and more[®] panels.

6.32. Initial operation test

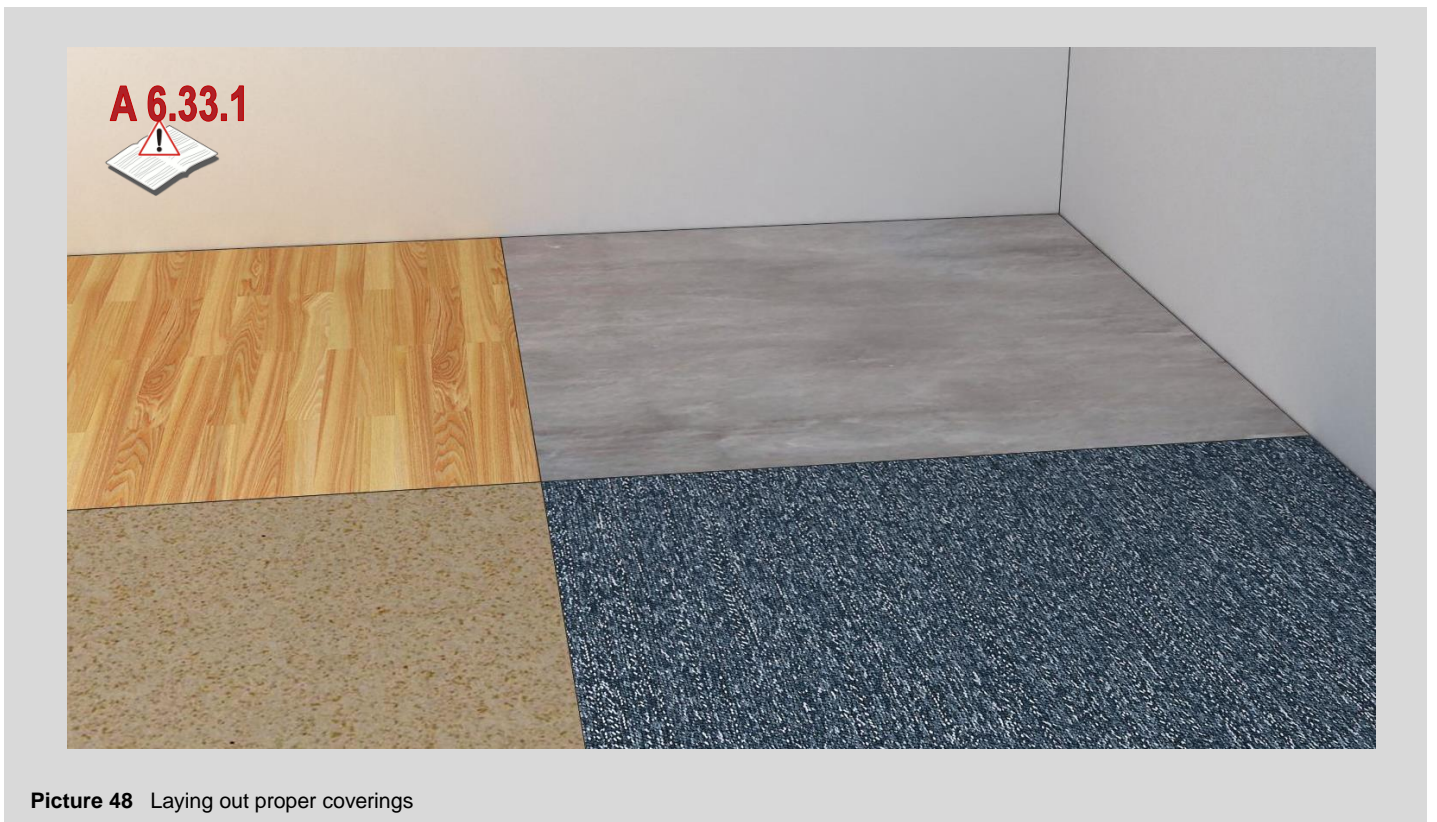


Picture 47 Initial operation test acc. to PKSB-14

Work step:

- A 6.32.1** An initial operation test acc. to fo-sb-060 has to be executed before the application of the covering. This may not be executed until 4 days after the filling of the heating tubes.

6.33. Coverings



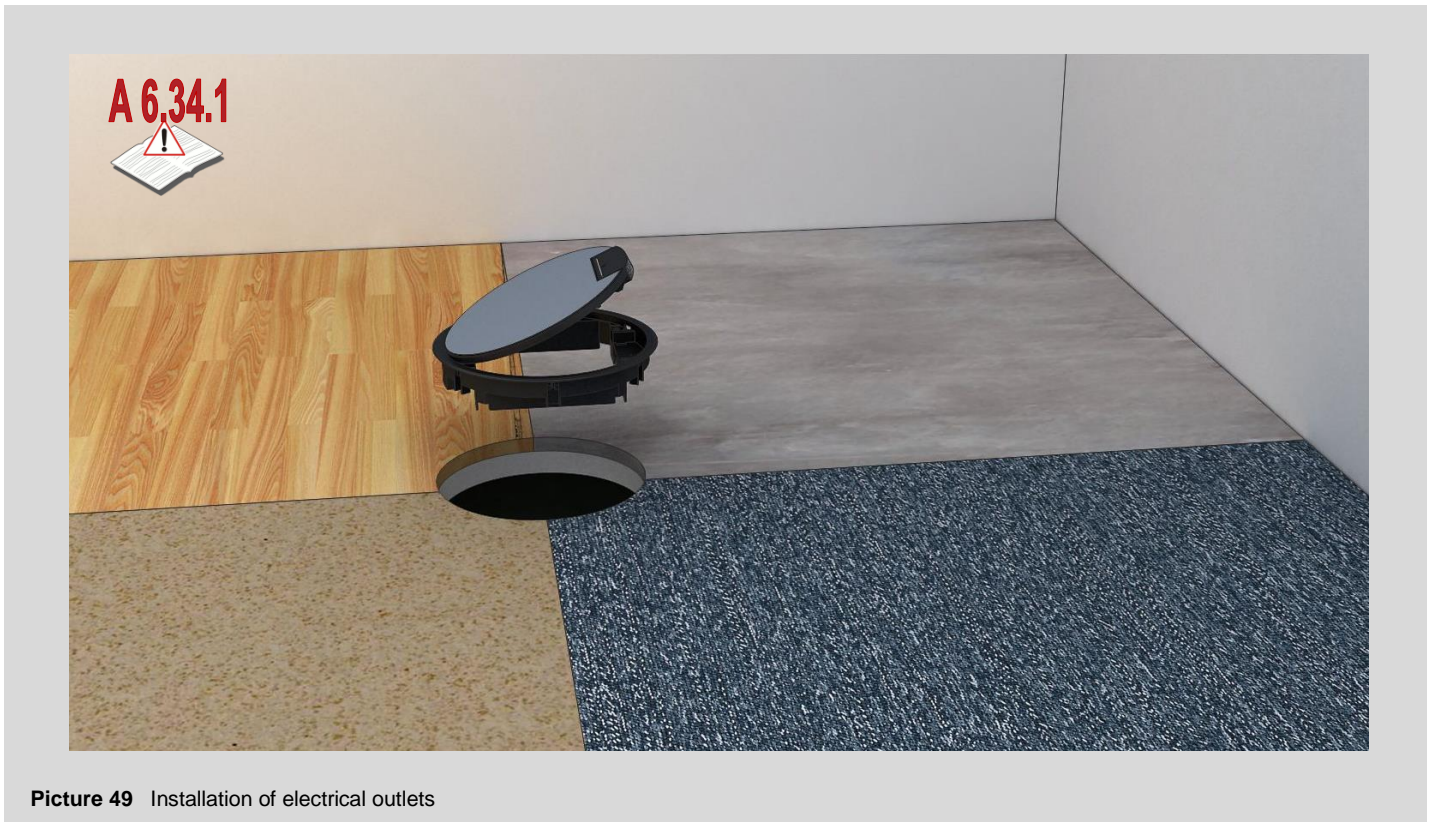
Picture 48 Laying out proper coverings

Work step:

- A 6.33.1** Coverings like stone or parquet, can be placed directly onto the FLOOR and more® comfort surface. With elastic or textile coverings we generally recommend using a proper spattling compound.

Indication
<ul style="list-style-type: none">• Be sure to use coverings suited for the use on a heated floor.

6.34. Installation of electrical outlets




Work step:

- A 6.34.1** Insert and fix electrical outlet for the accommodation of data and electrical connections acc. to information of the manufacturer in the opening which has been cut in the factory or on site.



6.35. PKSB-11 Leakage test



Form
Leakage-test

Leakage test in accordance with DIN-EN-1264-4

Connecting the heating pipes and performing the leakage test may only be carried out by qualified proven personnel. The leakage test has to be carried out before inserting the Lindner casting compound/ screed. The leakage test can be conducted with water or compressed air. The heating circuits have to be vented and filled with filtered, cold (approx. 10 – 20 °C) drinking water. The guidelines for water quality required by VDI 2035 must be observed and followed and frost has to be avoided. The testing pressure may not be less than 4 bar and not above 6 bar. Measures suitable to avoid the risk of frost must be taken (such as the use of antifreeze fluids or controlling the temperature of the building). If there is a risk of frost during normal operation, the system has to get cleaned by emptying and rinsing. Hence, the water has to get changed at least three times. At large temperature differences (> 10 K) between ambient temperature and fill-up water temperature, a soiling time of 30 minutes has to be maintained after the filling of the plant.

A test with compressed air is carried out with a maximum of 3 bar for 24 hours. It is necessary to ensure that further plant components are protected against excessive pressure (e.g. locking the distributor). The spreading of the Lindner casting compound may only take place after the checking for leakage. The dust pressure has to be returned to operating pressure and must be maintained during the spreading of the screed/ casting compound.

Details of the object

Name Address Building section Room	Text	Text
Building contractor Principal	Text	
Heating contractor	Text	
System floor installer	Text	

System floor specifications

FLOOR and more® comfort-VA-100 mm <input type="checkbox"/>	CAVOPEX comfort-VA-100 mm <input type="checkbox"/>	NORTEC comfort <input type="checkbox"/>
→ → → → VA-150 mm <input type="checkbox"/>	→ → → → VA-150 mm <input type="checkbox"/>	NORTEC comfort STONEline <input type="checkbox"/>
Screed Type: Text		

Leakage testing protocol

Visual examination of all connections regarding professional execution	yes <input type="checkbox"/> no <input type="checkbox"/>	Text
Antifreeze measures realized/necessary	yes <input type="checkbox"/> no <input type="checkbox"/>	Text
Leakage test executed by	Hydraulic Pressure Test <input type="checkbox"/>	Barometric Pressure Test <input type="checkbox"/>
Maximum permissible operating pressure	6 bar	3 bar
Test pressure	Text: bar	Text: bar
Loading duration (Air pressure test) max. 24 h	Text: h	Text: h

Confirmation

The density has been established; no permanent deformations occurred at any structural element.

Text	Place, Date	Heating Contractor (Signature)
Text	Place, Date	System Floor Company (Signature)
Text	Place, Date	Building Contractor / Principal (Signature)


Lindner-SD | Boden
 Betriebsstelle 201 | 84241 Aqualand | Deutschland
 Telefon +49 8722 2333533
 floor@lindner.com | www.lindner.com

Wir behalten uns vor, sämtliche Angaben und Informationen jederzeit anzupassen oder zu ändern. Für wesentliche
 Änderungen ist der Auftraggeber zu informieren. Diese Unterlagen sind durch das Unternehmen geschützt
 und dürfen nicht ohne schriftliche Genehmigung, insbesondere ohne Bestätigung, unbefugte Vervielfältigung oder öffentliche Weitergabe und
 Verbreitung gestattet. Eine Vervielfältigung oder Weitergabe an Dritte ist nur mit unserer Zustimmung erlaubt.

fo-sb-059_schichtabsperrung-en1 (21.2)

Picture 50 Form fo-sb-059 Leakage test

6.36. PKSB-14 Initial operation test



Form
Functional heating

Functional heating

Functional heating is intended to check the correct functioning of a floor heating system. It serves the heating engineer as proof for the creation of a defect-free trade. For the hollow floor system FLOOR and more[®] comfort, the start of the functional test may not be executed until 48 hours after grouting and for calcium sulphate floating screed (CAVOPEX) until 7 days after installation. Possibly, differing binding manufacturer specifications (screed) are to be observed. Since grouting of the heating pipes with the NORTEC comfort system is not necessary, functional heating can be started after the leak test has been completed.

Details of the object

Name Address Building section Room	Text
Client	Text
Specialist company for heating system	Text
System floor company	Text

System floor specification

FLOOR and more [®] comfort VA 100 mm <input type="checkbox"/> → → → → VA 150 mm <input type="checkbox"/>	CAVOPEX comfort VA 100 mm <input type="checkbox"/> → → → → VA 150 mm <input type="checkbox"/>	NORTEC comfort <input type="checkbox"/>
Screed type: Text		NORTEC comfort STONEline <input type="checkbox"/>

Functional heating protocol

Leak test executed on:	Text	a
Completion casting of heating pipes on:	Text	a
Start of functional heating on:	Text	Flow temperature: 25 °C Duration: at least 3 days
Raising the heating power on:	Text Text: °C	Maximum design temperature Duration: at least 4 days
End of functional heating on:	Text	In the event of a risk of frost, protective measures (frost protection mode) must be taken
Has the heating process been interrupted?	<input type="checkbox"/> yes <input type="checkbox"/> no	If yes: Text from Text to Text
Was the heated floor area free of building materials etc.?	<input type="checkbox"/> yes <input type="checkbox"/> no	If no: Text Text
Were the rooms aired without draught and was the screed protected against draught and too fast drying (windows and exterior doors closed) after switching off the floor heating?	<input type="checkbox"/> yes <input type="checkbox"/> no	If no: Text Text
The system was released at an outdoor temperature of Text: °C	<input type="checkbox"/> The system was not in use that time. a <input type="checkbox"/> The system was heated to Text: °C at this time. a	

Confirmation

Text Place, Date	Heating Contractor (Signature)
Text Place, Date	System Floor Company (Signature)
Text Place, Date	Building Contractor / Principal (Signature)

Lindner SE / Floor
 Bahnhofsplatz 25 | 94024 Amberg | Germany
 Phone +49 9723 20-3800
 floor@lindner.com | www.lindner.com

Subject to change without notice. This document is our intellectual property. It may neither be reproduced, commercialized, distributed nor presented to other individuals for commercial purposes without our approval.

fo-sb-060_Lindnerheizen-en | 21.02

Picture 51 Form fo-sb-060 Initial operation test

6.37. Bracings and further accessories

Indication

- There are no installation steps for the bracing of the FLOOR and more® comfort area included in the installation guideline. These are necessary in order to take up the horizontal loads which are affecting the floor system. They have to be planned and installed specifically for each project.
- Furthermore, there are no work steps for further accessories included.
- Please do not hesitate to contact us in case you should have further questions or if you require any assistance.

6.38. Disposal



Please consider an environmentally compliant disposal of packaging, adhesives, sealants and accrued waste with installation acc. to local regulations!

Please search for possibilities of recycling or appropriate disposal.