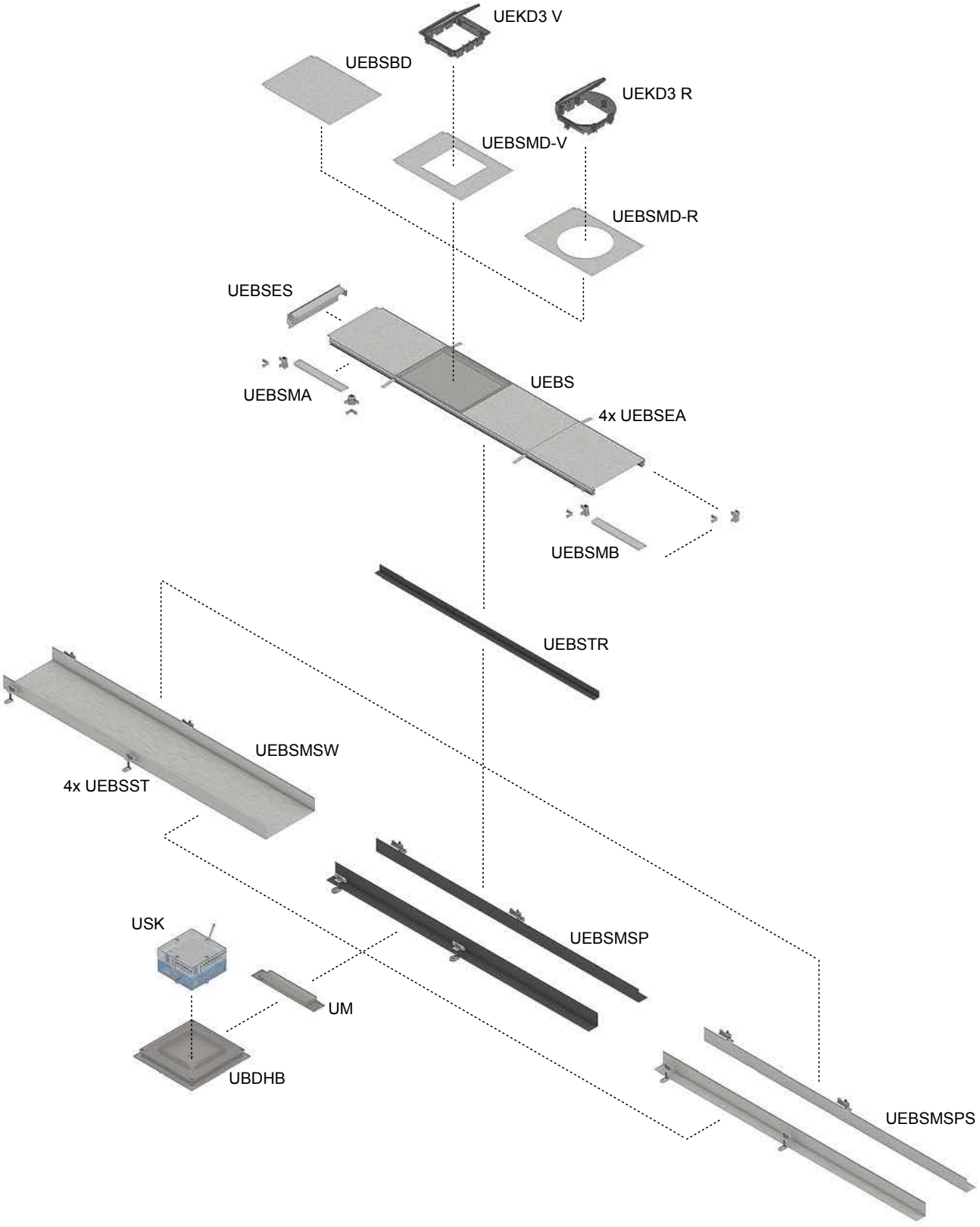
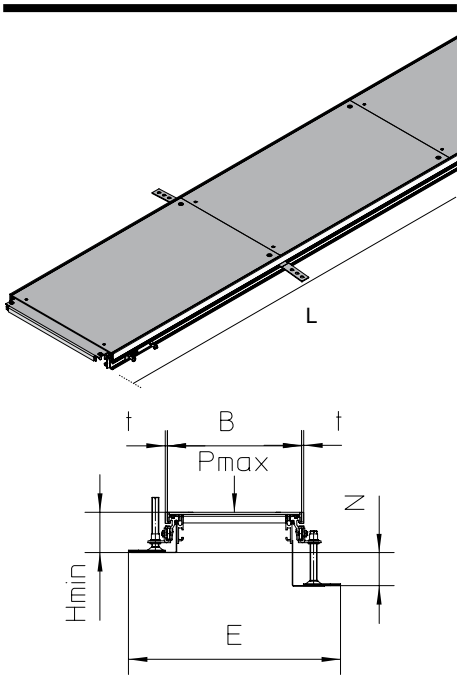
Screed flush duct systems
Information


UEKD3 V
UEBSBD
UEKD3 R
UEBSMD-V
UEBSMD-R
UEBSES
UEBSMA
UEBS
4x UEBSEA
UEBSMB
UEBSTR
UEBSMSW
4x UEBSST
USK
UEBSMSP
UM
UBDHB
UEBSMSPS

UEBS screed flush duct, 1 compartment

Screed-flush duct system consisting of 1x duct UEBS, 2x side panels UEBSMSP, respectively 1x tub UEBSMSW and 4x levelling units UEBSST.



article number	H_{min} mm	N mm	B mm	L mm	E mm	t mm	P_{max} kN	IP_n	G kg
S									
UEBS 20S	60	+90	200	2000	400	1,5	2	IP 30	15,14

accessories included:
2 x **UEBSPT-3 AL** carpet flange with hem 0/3 mm
1 x **UEBSE** earthing connector
4 x **UEBSEA** screed anchor
4 x **UEBSD 20S** dummy cover

article number	H_{min} mm	N mm	B mm	L mm	E mm	t mm	P_{max} kN	IP_n	G kg
S									
UEBS 30S	60	+90	300	2000	500	1,5	2	IP 30	20,30

accessories included:
2 x **UEBSPT-3 AL** carpet flange with hem 0/3 mm
1 x **UEBSE** earthing connector
4 x **UEBSEA** screed anchor
4 x **UEBSD 30S** dummy cover

article number	H_{min} mm	N mm	B mm	L mm	E mm	t mm	P_{max} kN	IP_n	G kg
S									
UEBS 40S	60	+90	400	2000	600	1,5	2	IP 30	25,46

accessories included:
2 x **UEBSPT-3 AL** carpet flange with hem 0/3 mm
1 x **UEBSE** earthing connector
4 x **UEBSEA** screed anchor
4 x **UEBSD 40S** dummy cover

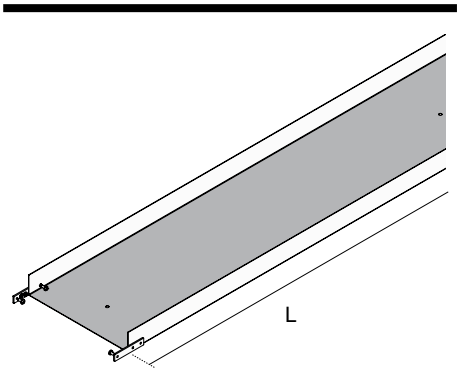
article number	H_{min} mm	N mm	B mm	L mm	E mm	t mm	P_{max} kN	IP_n	G kg
S									
UEBS 50S	60	+90	500	2000	700	1,5	2	IP 30	30,86

accessories included:
2 x **UEBSPT-3 AL** carpet flange with hem 0/3 mm
1 x **UEBSE** earthing connector
4 x **UEBSEA** screed anchor
4 x **UEBSD 50S** dummy cover

accessories optional:
UEBSMSP Plastic side panels
UEBSQT S transverse cross bar
UEBSMSP S Steel sheet side panels
UEBSQT transverse cross bar
UEBSMSW Floor tub
UEBSST levelling support

UEBSMSW Floor tub

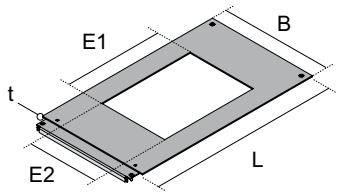
article number	H_{min} mm	N mm	B mm	L mm	G kg
S					
UEBSMSW 60-20S	60	+ 30	200	2000	4,28
UEBSMSW 60-30S	60	+ 30	300	2000	5,85
UEBSMSW 60-40S	60	+ 30	400	2000	7,42
UEBSMSW 60-50S	60	+ 30	500	2000	8,99
UEBSMSW 80-20S	80	+ 30	200	2000	4,91
UEBSMSW 80-30S	80	+ 30	300	2000	6,48
UEBSMSW 80-40S	80	+ 30	400	2000	8,05
UEBSMSW 80-50S	80	+ 30	500	2000	9,62
UEBSMSW 100-20S	100	+ 30	200	2000	5,54
UEBSMSW 100-30S	100	+ 30	300	2000	7,11
UEBSMSW 100-40S	100	+ 30	400	2000	8,68
UEBSMSW 100-50S	100	+ 30	500	2000	10,25
UEBSMSW 120-20S	120	+ 30	200	2000	6,17
UEBSMSW 120-30S	120	+ 30	300	2000	7,74
UEBSMSW 120-40S	120	+ 30	400	2000	9,31
UEBSMSW 120-50S	120	+ 30	500	2000	10,87



UEBSMD 185V Assembly cover, quadrangular

article number	B mm	L mm	E1 mm	E2 mm	t mm	G kg
S						
UEBSMD-185V 30S	300	500	261	186	3	2,63
UEBSMD-185V 40S	400	500	261	186	3	3,92

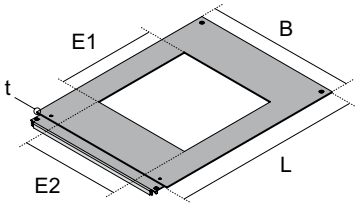
accessories included:
2 x **BSS 4.8x16** Flat head tapping screw



UEBSMD 260V Assembly cover, quadrangular

article number	B mm	L mm	E1 mm	E2 mm	t mm	G kg
S						
UEBSMD-260V 40S	400	500	261	261	3	2,63
UEBSMD-260V 50S	500	500	261	261	3	4,79

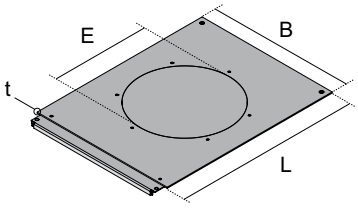
accessories included:
2 x **BSS 4.8x16** Flat head tapping screw



UEBSBMD 260R Assembly cover, blank, round

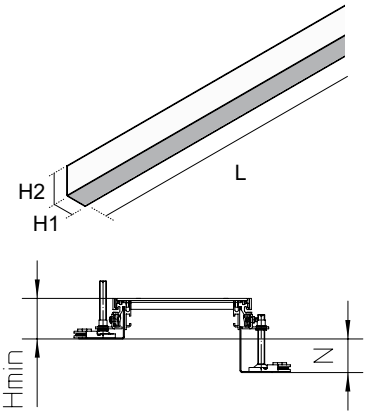
article number	B mm	L mm	E mm	t mm	G kg
S					
UEBSBMD-260R 40S	400	500	260	3	5,23

accessories included:
2 x **BSS 4.8x16** Flat head tapping screw



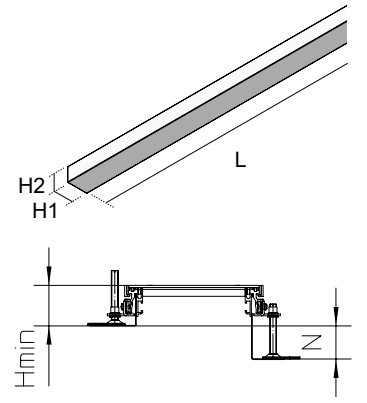
UEBSMSP Plastic side panels

article number	H1 mm	H2 mm	H_{min} mm	N mm	L mm	G kg
PA						
UEBSMSP 60	48	68	60	+ 50	2000	1,00
UEBSMSP 100	88	108	100	+ 50	2000	1,02



UEBSMSP S Steel sheet side panels

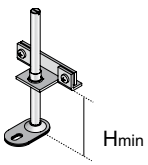
article number	H1 mm	H2 mm	H_{min} mm	N mm	L mm	G kg
S						
UEBSMSP 60S	48	68	60	+ 50	2000	1,35
UEBSMSP 100S	88	108	100	+ 50	2000	1,29



UEBSST levelling support

article number	H_{min} mm	N mm	G kg
S			
UEBSST 80S	60	+ 50	0,18

accessories included:
2 x **LKS M5x10** Lens head screw
1 x **UBDSLF 80** levelling support
1 x **UEBSV S** coupler



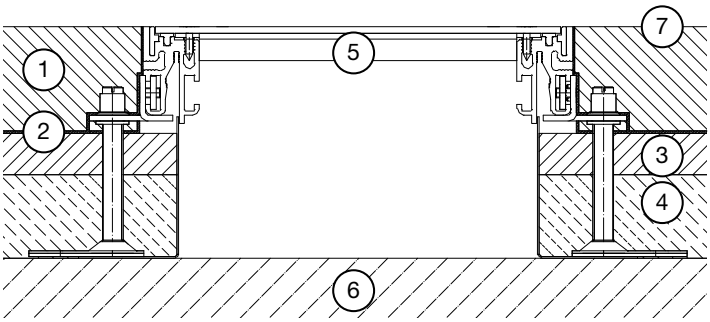
article number	H_{min} mm	N mm	G kg
S			
UEBSST 150S	100	+ 50	0,20

accessories included:
2 x **LKS M5x10** Lens head screw
1 x **UBDSLF 150** levelling support
1 x **UEBSV S** coupler

accessories optional:
UGM SLF Subsonic noise sleeve socket - levelling support

Test

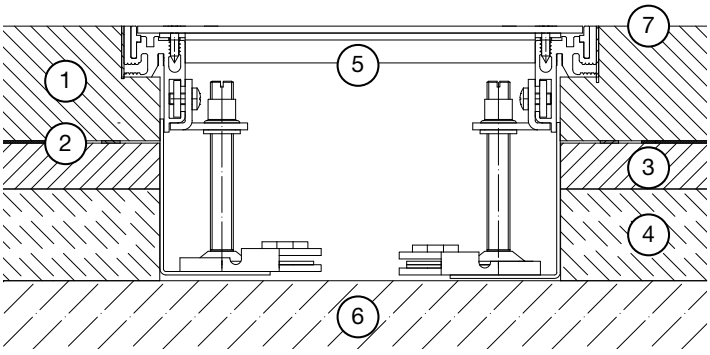
Duct UEBS and a outboard leveling



Test setup	ΔL_w (dB)	$L'_{n,w}$ (dB)
Duct system installed in floating screed, stimulation on screed and duct	28	53
Duct system installed in floating screed, stimulation on screed and duct with linoleum	33	48
Duct system installed in floating screed, stimulation on screed and duct with textile floor cover	40	41

Results according to test report 13-840 from March 2014

Duct UEBS and a internal leveling



Test setup	ΔL_w (dB)	$L'_{n,w}$ (dB)
Duct system installed in floating screed, stimulation on screed and duct without decoupling	28	53
Duct system installed in floating screed, stimulation on screed and duct, decoupling over the rubber sleeve	29	52
Duct system installed in floating screed, stimulation on screed and duct, decoupling suspended without leveling	30	51

Results according to test report 13-840 from March 2014

Setup:
1. 50 mm cement screed
2. 1 mm foil
3. 20 mm impact sound insulation plate
4. 40 mm heat insulation plate
5. screed-flush duct UEBS
6. 160 mm concrete slab
7. floor cover (carpet 8,0 mm, linoleum 2,8 mm)

$L'_{n,w}$ = 81 dB stimulation on concrete slab
$L'_{n,w}$ = 50 dB stimulation on screed, without installations

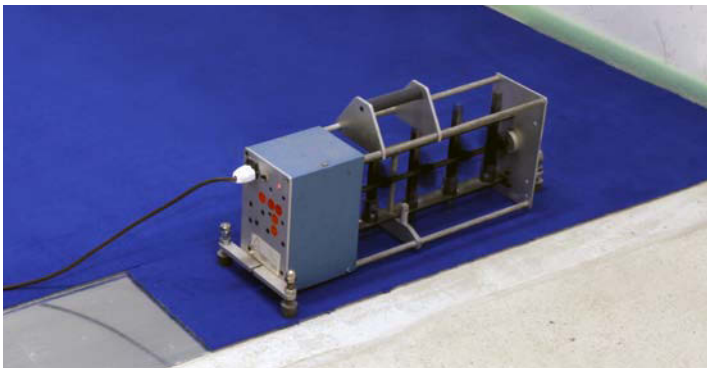
Test results

The test results with all proper applications show that the screed-flush underfloor system meets the standard noise protection requirement of 53 dB for floors in office buildings. The installation of the underfloor systems into the floating screed of a floor is therefore completely unproblematic as to the subsonic noise behaviour.

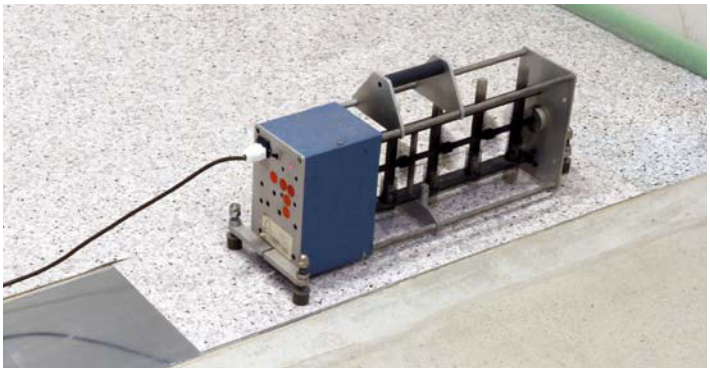
When laying carpet or linoleum floor covers, it is irrelevant in this context, whether the subsonic noise initiation occurs on screed or directly on the duct. Even in case of an initiation without floor cover the standard subsonic noise requirements are met.

A decoupling of the duct system with inside levelling through a rubber cuff renders a subsonic noise reduction of up to 1 dB. A complete decoupling by means of a subsequent removal of the levelling supports after the hardening of screed results in a subsonic noise reduction of up to 2 dB.

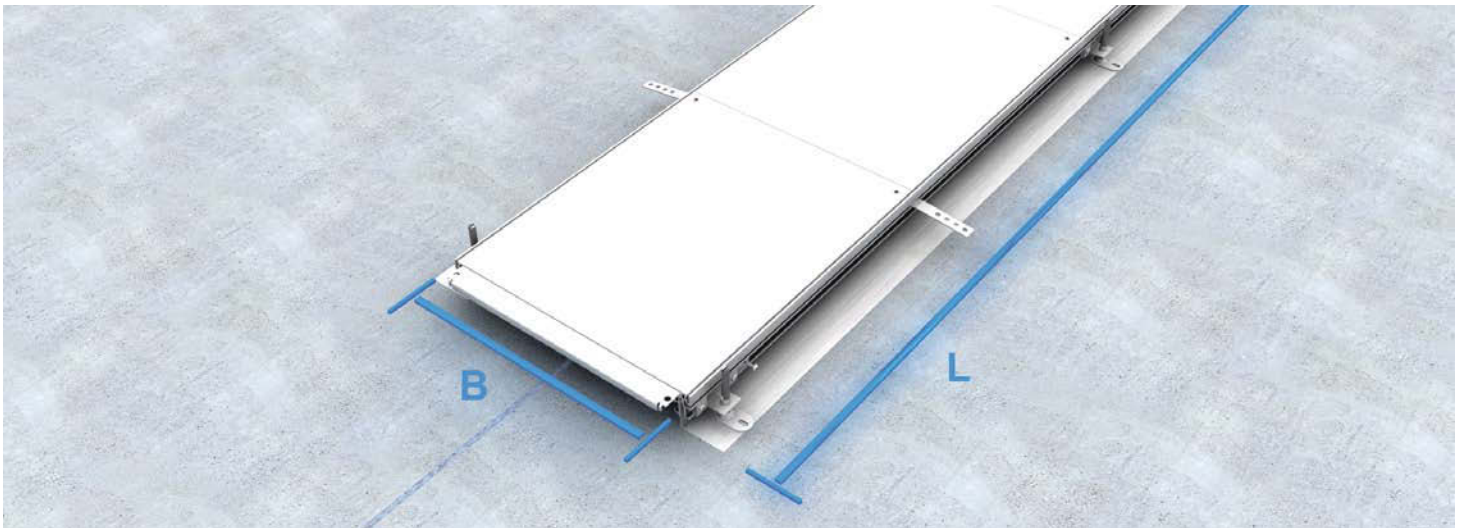
Broadcasting room with carpet floor covers



Broadcasting room with linoleum floor covers

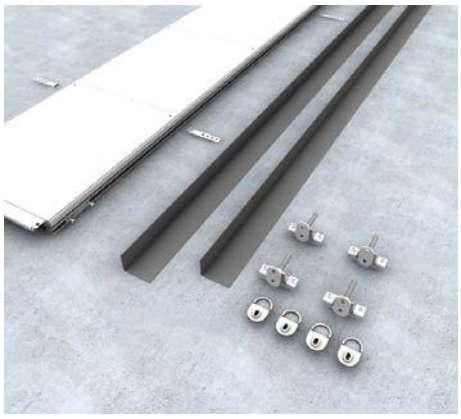


Screed flush duct
Assembly instruction

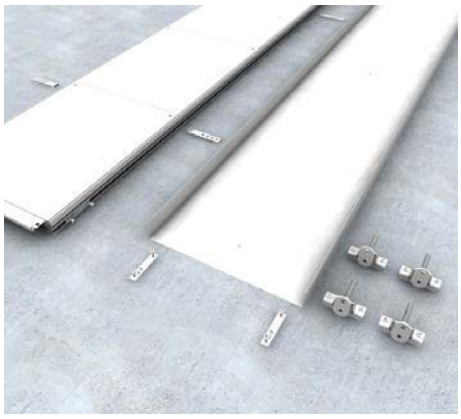


Before mounting read the technical information „Assembly Requirements“. Pre-assembled screed flush duct UEBS with four dummy covers in nominal widths B = 200, 300 and 400 and 500 mm made of steel plate with a length L of 2000 mm. Optional levelling areas between 60-110 mm and 100-150 mm. Three systems ar available. Steel plate side panel as the basic version, synthetic side panels for impact noise isolation and as a closed base tub for EMV cable routing.

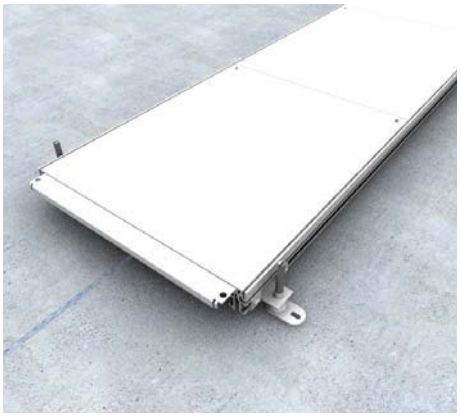
1 | UEBS with steel plate side panel
Necessary mounting material in addition to the UEBS with steel plate side panel: 1x side panel set UEBSMSP S and 4x levelling units UEBSST.



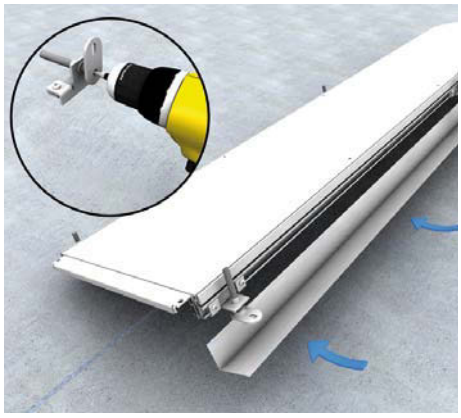
2 | UEBS with synthetic side panel
Mounting material required in addition to the UEBS synthetic side panel: 1x panel set UEBSMSP, 4x levelling units UEBSST and 4x rubber cuffs UGM-SLF.



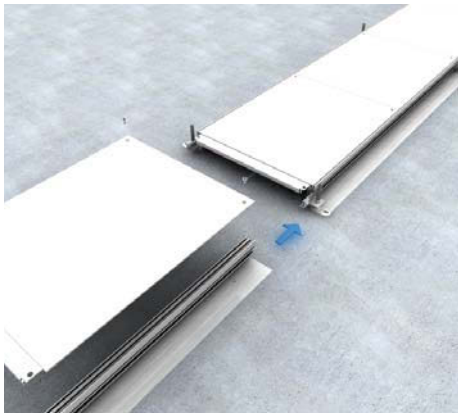
3 | UEBS with tub
Mounting material needed in addition to UEBS with steel plate tub: 1x base tub UEBSMSW and 4x levelling units UEBSST.



4 | Duct alignment
Measure the duct course according to the approved layout drawing and mark it using a plumb line. Lay out pre-assembled duct according to duct course and marking. Note binding height metre point.

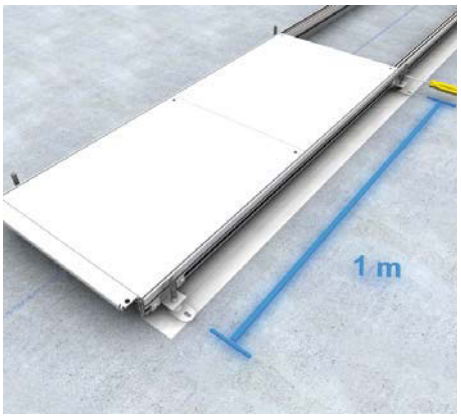


5 | Levelling units / side plate
Insert and pre-position one side panel and two levelling units per duct side sideways into the duct aluminium profile. The individual levelling units can be roughly set to the required height in advance.

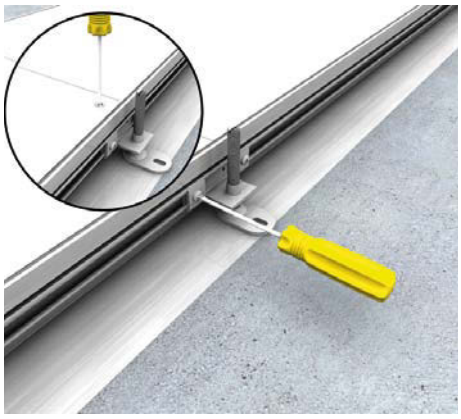


6 | Duct piece assembly
Release end dummy cover of the delivered duct, align ducts and finally push together. Link levelling units and cross beams to the duct parts. Note that the cross beam is tightly screwed to the dummy cover as provided by the factory.

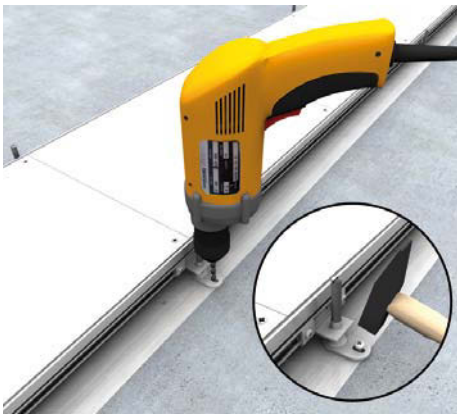
Screed flush duct
Assembly instruction



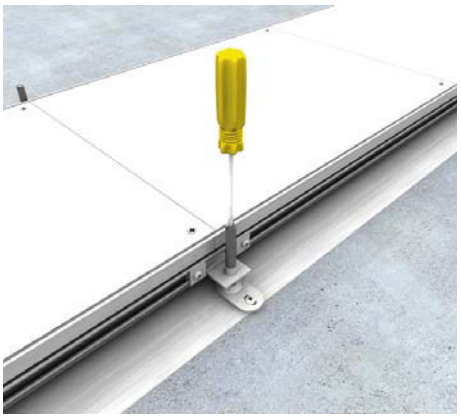
7 | Positioning the levelling units
Position levelling units according to the course of the duct at intervals of one metre and screw them to the aluminium profile. Comply with the levelling unit height of 80 respectively 150 mm. Firmly connect together all metal parts of the duct system.



8 | Mounting the duct
Screw levelling units so that they overlap with both duct pieces. While doing so, comply with that the dummy cover is tightly connected with the closest following duct part by means of a cross beam.



9 | Plugging of the levelling foot
Align leveling on the side wall and drill a hole. Fasten levelling feet firmly to the rough concrete using nail plugs.

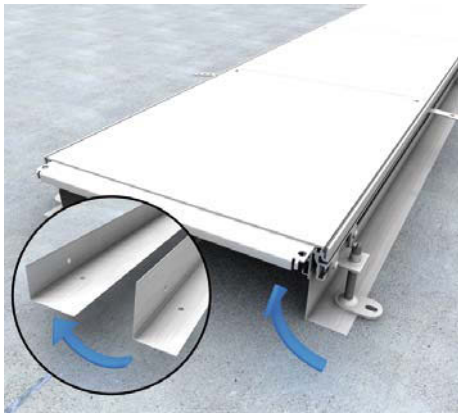


10 | Adjusting the levelling
Level the completely mounted duct system to the required screed height using a laser or digital tube level. The levelled duct system must not be walked upon or strained in any other way.

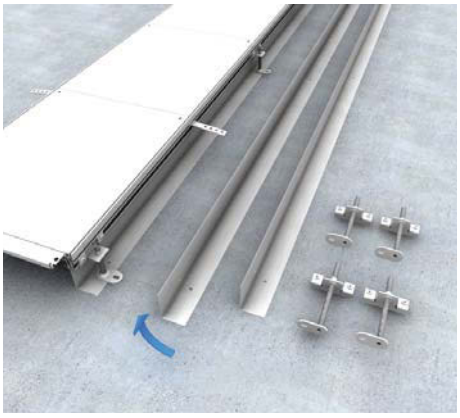
11 | Mounting the separating panels
Plug the synthetic separating panels directly into the rough concrete in 1-metre-intervals.

12 | Screed anchor
Latch screed anchor into the duct segment's outer profile. The screed anchors serve as a firm connection between duct and screed, thereby helping to prevent a later fissuring. Four screed anchors per duct unit are included in the delivery.

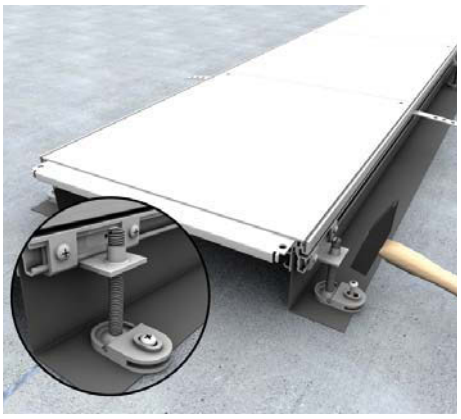
13 | Shortening the levelling units
If needed the levelling units can be shortened below screed level. All open areas must be masked according to DIN before the application of screed.



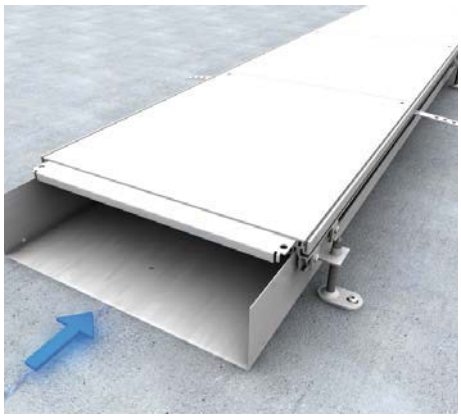
14 | Low levelling of 60–100mm
For a floor construction of up to 110 mm, use levelling unit UBSST 80S. The side panel brackets must be turned according to the desired side height. Correspondingly, a levelling height of 60-90 mm respectively of 80-110 mm is possible.



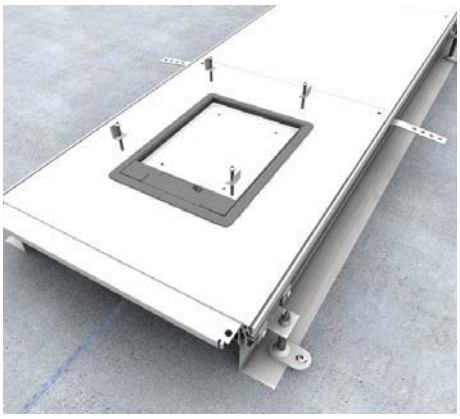
15 | High levelling of 100–150mm
For a floor construction of up to 150 mm, use levelling unit UBSST 150S. The side panel brackets must be turned according to the desired side height. Correspondingly, a levelling height of 100-130 mm respectively of 120-150 mm is possible.



16 | Impact sound decoupling
For an impact sound decoupling of the duct system use synthetic side panels only. Additionally push rubber cuffs over the levelling units. Then mount the two connected components onto the rough concrete using nail plugs.

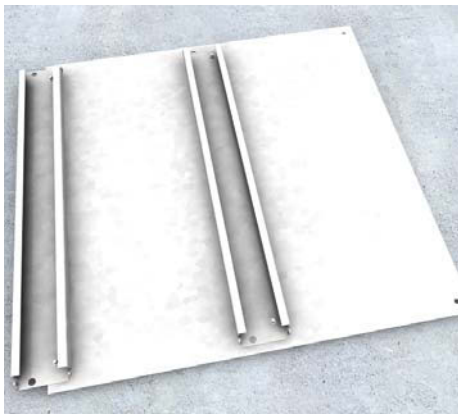


17 | Tube mounting
When using a floor tube, the required levelling height must be complied withd. Select tube type H = 60, 80, 100 respectively 120 mm and push into the duct side profile. The levelling is done after the plugging to the rough concrete.



18 | Assembly covers
After the assembly of the duct system, the corresponding dummy covers must be replaced by assembly covers for installation units and adjusted to the duct course. To mount installation units, use special claws UDKSEB with a clamping range of at least 2 mm.

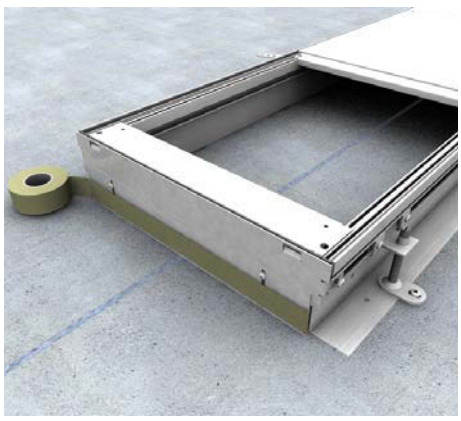
19 | Cross beam
In the course of adjusting the cover sections, the cross beam must be loosened from the dummy cover or assembly cover. The corresponding cover must be shortened, drilled in again and finally screwed into the side profile.



20 | Cross beam B = 500 mm
The 500 mm duct covers have additional cross beams. The cross beams are attached with a distance of 25 cm from one another. An additional duct support is therefore unnecessary.

21 | Carpet edge
According to delivery condition, the turnable carpet protection edge is flush with the duct embedded in the screed-flush duct. If needed, it can be turned creating a 3 mm floor cover edge.

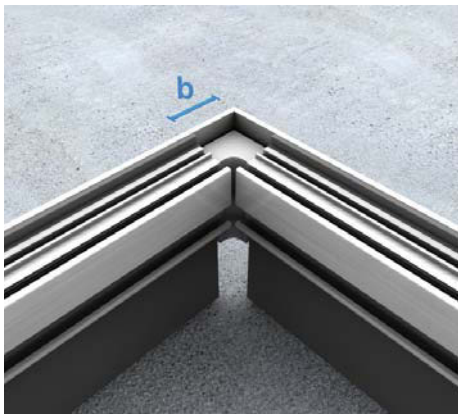
22 | Dummy cover
The dummy covers (width B -6 mm) are delivered with one cross beam that can be screwed on one side, and are to be bolted to the side profile of the duct in offset on the nearest overlapping cross beam with two bolts.



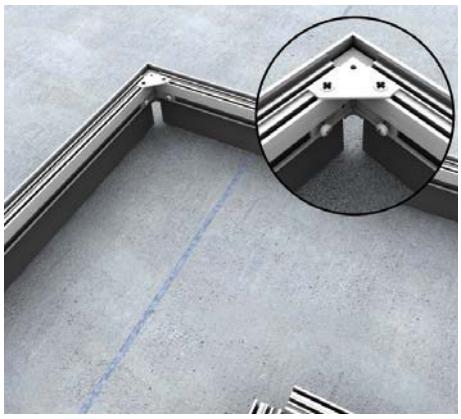
23 | End piece
Insert the end piece sideways into the duct profile and screw tightly together. A height adjustment by 3 mm is possible by means of carpet protection edge. If needed, the lower openings can be masked.

24 | Accessory set for 75 mm height
Notch and burr the side panel of the duct. Bend open side panel of the hollow space floor box along the perforation and insert one mounting sleeve UM between duct and hollow space floor box. Fix hollow space floor box to the rough concrete and insert shuttering unit.

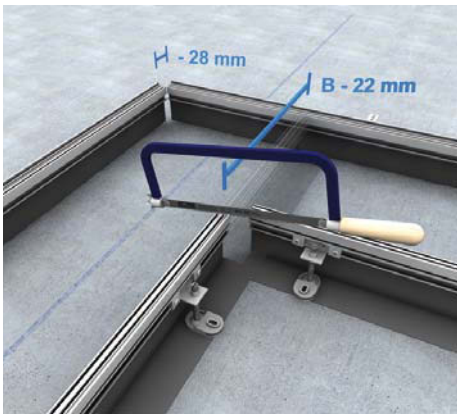
25 | Accessory set for 60-110 mm height
Notch and burr the side panel of the duct. Connect accessory set to the duct using a coupler and affix to the rough concrete. The installation unit can be inserted immediately after the completion of the screed work and the removal of the dummy cover.



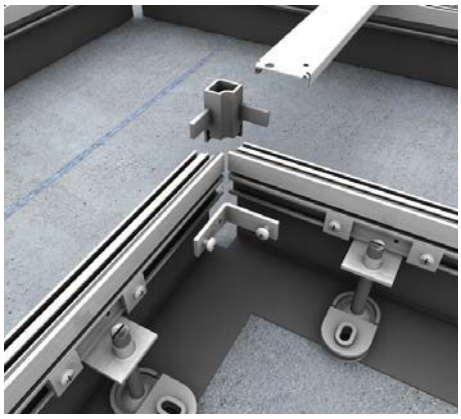
26 | Corner connection
The synthetic corner connection (b = 26 mm) is for making a formed part during assembly. After cutting the duct profile, insert the connection into it and screw them together using the steel plate corner connection. Depending on the rotating direction the corner connection can be used as an inside or outside corner.



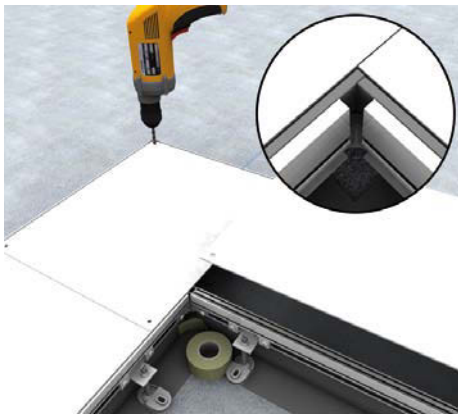
27 | Coupler plate
A coupler plate must be inserted in addition to the corner connection. The plate should be mounted in the corner using the provided screws, thus creating the necessary fastening point.



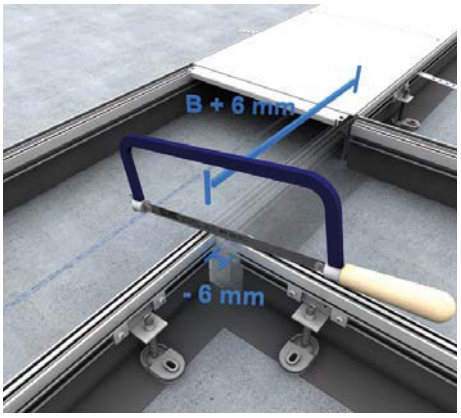
28 | Cutting a 90°bend
In order to create a 90° bend, an aluminium outside profile must be shortened by 28 mm and both aluminium inside profiles by B -22 mm each, after the laying of the duct. Side panels and dummy covers should be cut as needed.



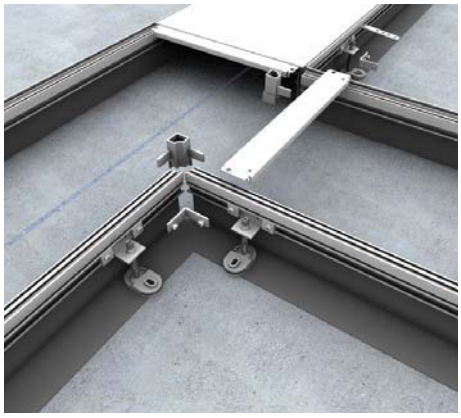
29 | Mounting a 90°bend
Push duct pieces together and link together using the separately supplied bend assembly set. Then screw them together using the corner connection.



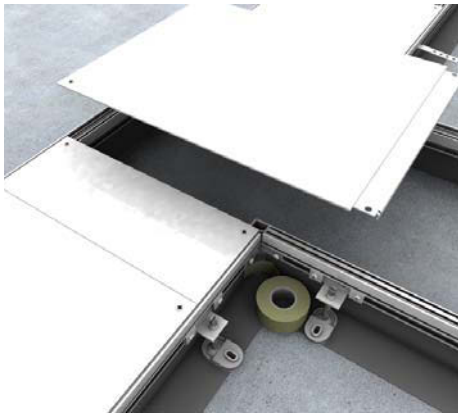
30 | 90°bend final assembly
Cut cover sections and if needed, ream mounting holes. Insert cross beam for support. Slide in carpet edge, 3 mm overlaying in the corners, and mark open areas. Cover and screw duct section.



31 | Cutting a T-junction
In order to create a T-junction after the laying of the duct, the duct must be notched end-to-end on one side by B +6 mm. Shorten the aluminium profiles of the incoming duct on both sides by 6 mm each. Cut side panels and dummy covers.



32 | Mounting a T-junction
Push duct pieces together and link together using the T-junction assembly set included in the delivery. Then screw them together using the corner connection. In order to create an intersection, use two T-junction assembly sets.



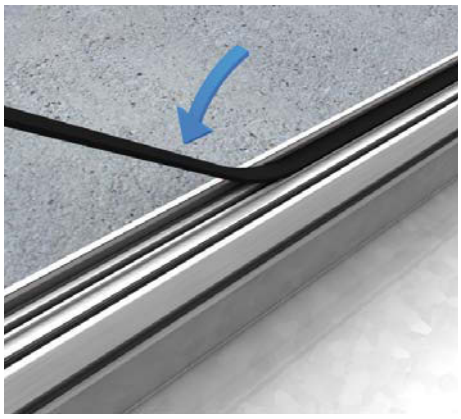
33 | T-junction final assembly
Cut cover, ream mounting holes and insert cross beam for support. Slide in carpet edge, making sure that they are overlaying 3 mm in the corners and mark open areas. Cover and screw duct section. Do not lay dummy cover joints in junction areas.

34 | Dummy cover segment
Cut the cover segment (L< 500 mm) to the required length.

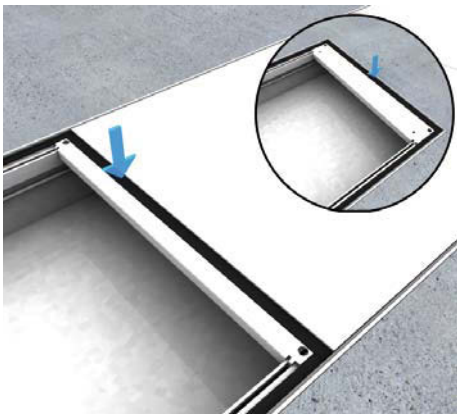
35 | Dummy cover segment
Create additional drill holes with reduction for countersunk head screws.

36 | Dummy cover segment
Fasten the dummy cover segment with additional countersunk head screw with the side profile.

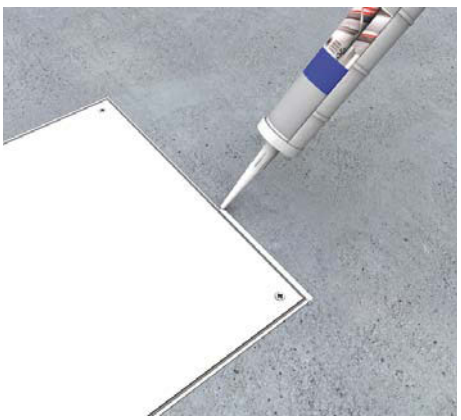
37 | UEBS Duct system for wet-maintenance linoleum covers
First, completely remove the rubber insert (UEBSPGD) from the side profile of the duct.



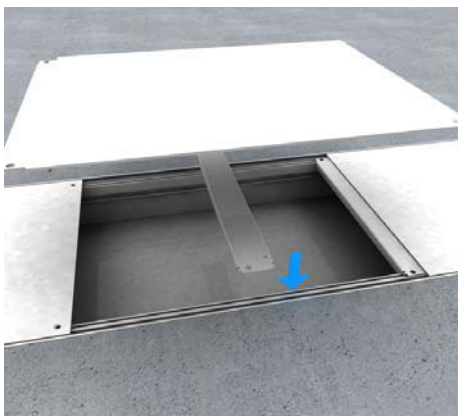
38 | UEBS Duct system for wet-maintenance linoleum covers
Next, glue the rubber seal (UGDB15-R300 1.8) onto the side profile in longitudinal direction, covering the entire area of the duct.



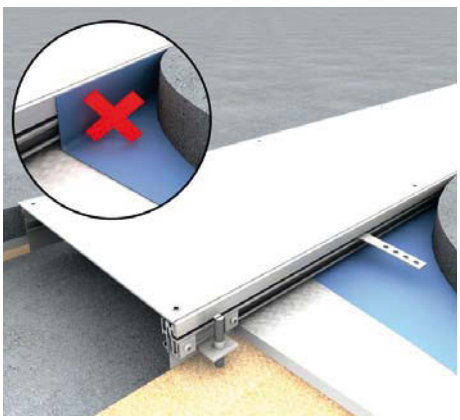
39 | UEBS Duct system for wet-maintenance linoleum covers
In addition, glue the transverse cross bar (UEBSQT) and the end piece (UEBSES) flush to the rubber seal.



38 | Sealing of the duct system
Finally, seal all open areas of the duct system as well as the assembly sets using silicone.



41 | Transverse cross bar
If there is an increased load, an additional transverse cross bar must be inserted centrally under the dummy cover.



40 | Screed work
Pay attention to a good screed compaction and conciseness in order to avoid cracks in the screed. Apply screed directly to the aluminum profile of the channel. Don't use insulation strips for decoupling.

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