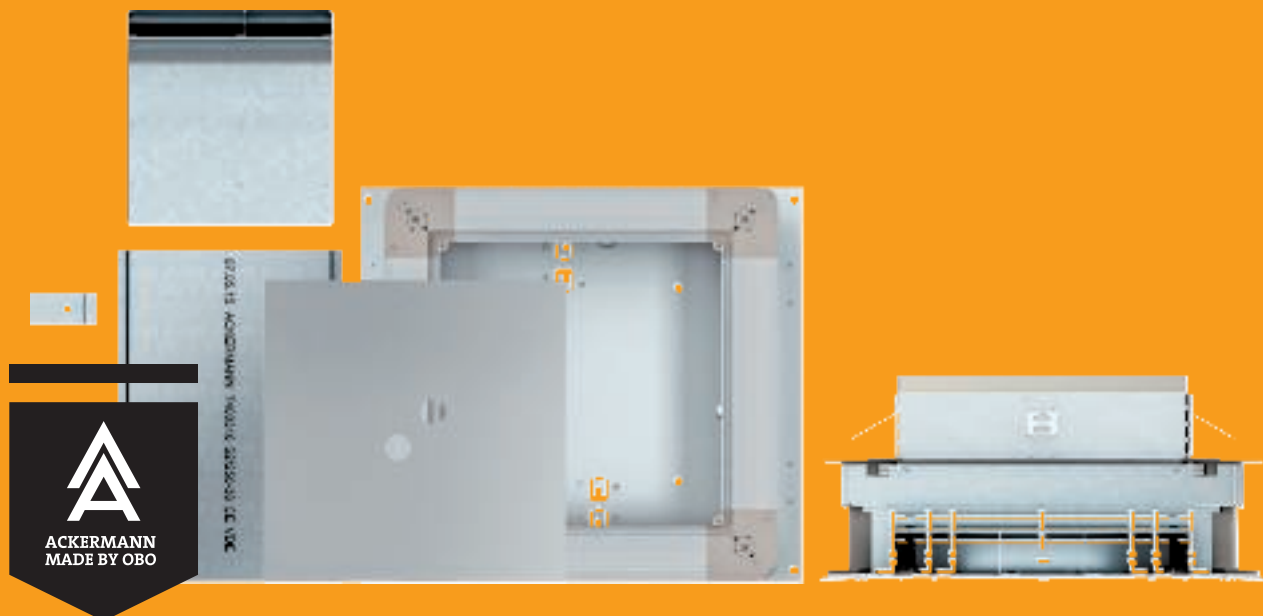




## Underfloor system for polished screeds



System information

**OBO**  
BETTERMANN





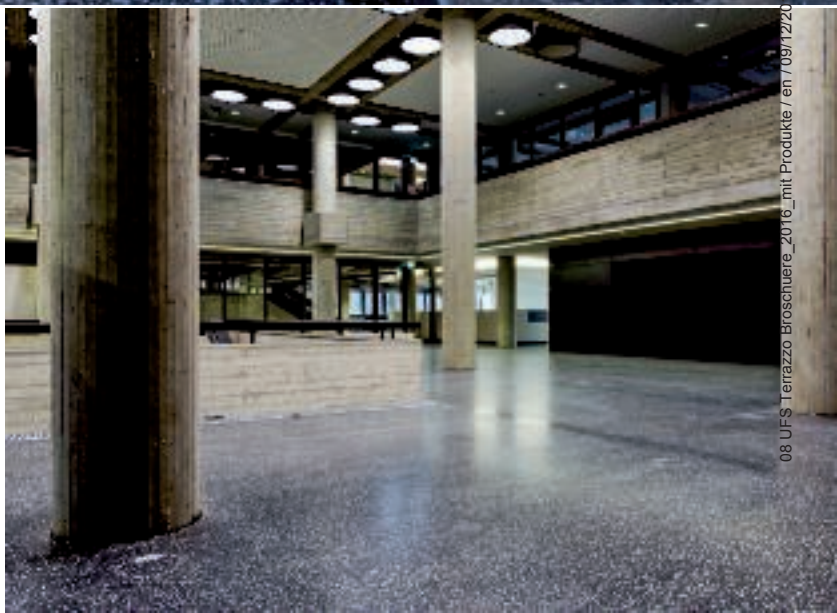
## Jointless installation of cassettes

Jointless floor areas, such as polished cement or poured asphalt screeds, are the latest trend in modern interior architecture. Architects and customers value this type of floor covering design for its varied design options and its economy.

Ackermann made by OBO can offer a special underfloor solution, in order to integrate access points to the electrical installation into the floor area without joints: The cassette lined body for polished screeds.



Use in polished poured asphalt screed





Poured asphalt screed is used where there are high requirements for heat protection, noise insulation and the elasticity of the floor covering. This screed type does not require drying times: The floor is ready for use shortly after laying.



The components of the cassette lined bodies are made from robust metal. The hot poured asphalt screed can therefore be worked directly onto the cassette frame and the cassette lined body.

Use in polished cement screed



The underfloor solutions for polished screed floors from Ackermann made by OBO can also be used in cement screeds. If cement screeds are polished multiple times, jointless floor areas with aggregate are created. One variant of this screed type is the Terrazzo floor. Terrazzo is made up of a support layer and a decorative use layer. The use layer can be coloured with additives and designed using decorative stone mixtures to meet the specifications of the architecture.



The cassette lined body for polished screeds is designed in such a way that cassettes are integrated into the floor without gaps. The floor covering recess of the cassette lids is filled with a Terrazzo layer, which is polished specially using suitable tools. This avoids unattractive joints. In this way, the access points to the electrical installations in the floor can be given an attractive appearance.

Use in polished  
cement screed



Cassettes with a tube body lid are suitable for classic wet cleaning: The tube body protects the installation compartment against ingressing water. The cassettes were tested according to EN 50085-2-2 for use in wet-cleaned floors. The requirements of the standard are also fulfilled when the tube body is opened to let out cables.



08 UPS Terrazza Broschüre | en | 09/12/2016 (UE-Port\_04390) / 09/12/2016





Cassettes with folding cord outlets are suitable for dry floor cleaning or for moistened floor cleaning with a wrung mop.



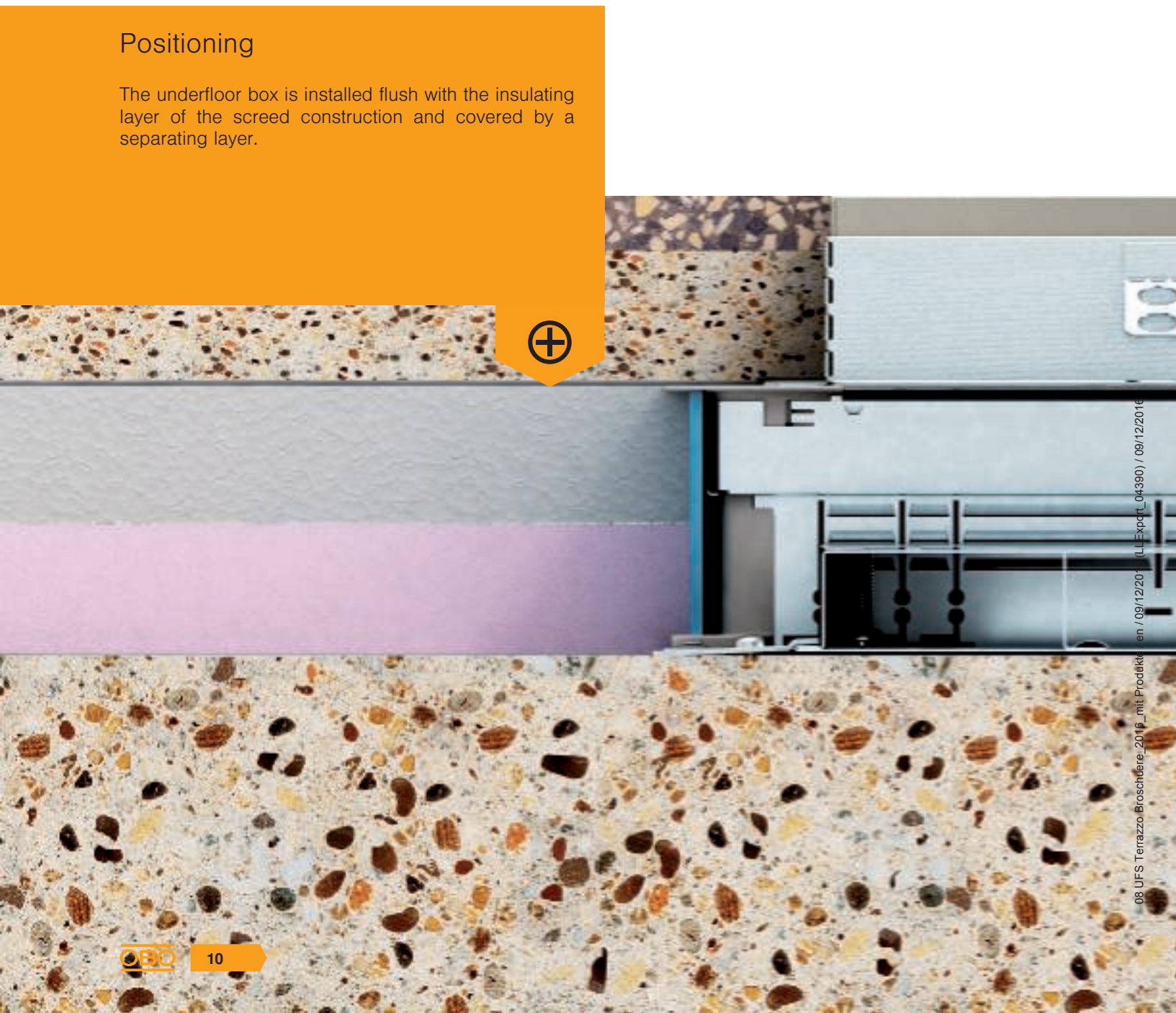
# System structure of underfloor system for polished screeds

The Ackermann made by OBO cassette lined body for polished screeds allows for surface-flush, jointless installation of cassettes into the floor area. This special solution for the installation of cassettes in polished floors created a lining, in which the cassette is adjusted to the specified top edge of the finished floor.

The side wall of the lined body matches the processing of the surface-ready screed. The screed layer can also carry loads in the edge area of the underfloor box, as the carrying layer and the use layer are just as thick in the edge areas.

## Positioning

The underfloor box is installed flush with the insulating layer of the screed construction and covered by a separating layer.



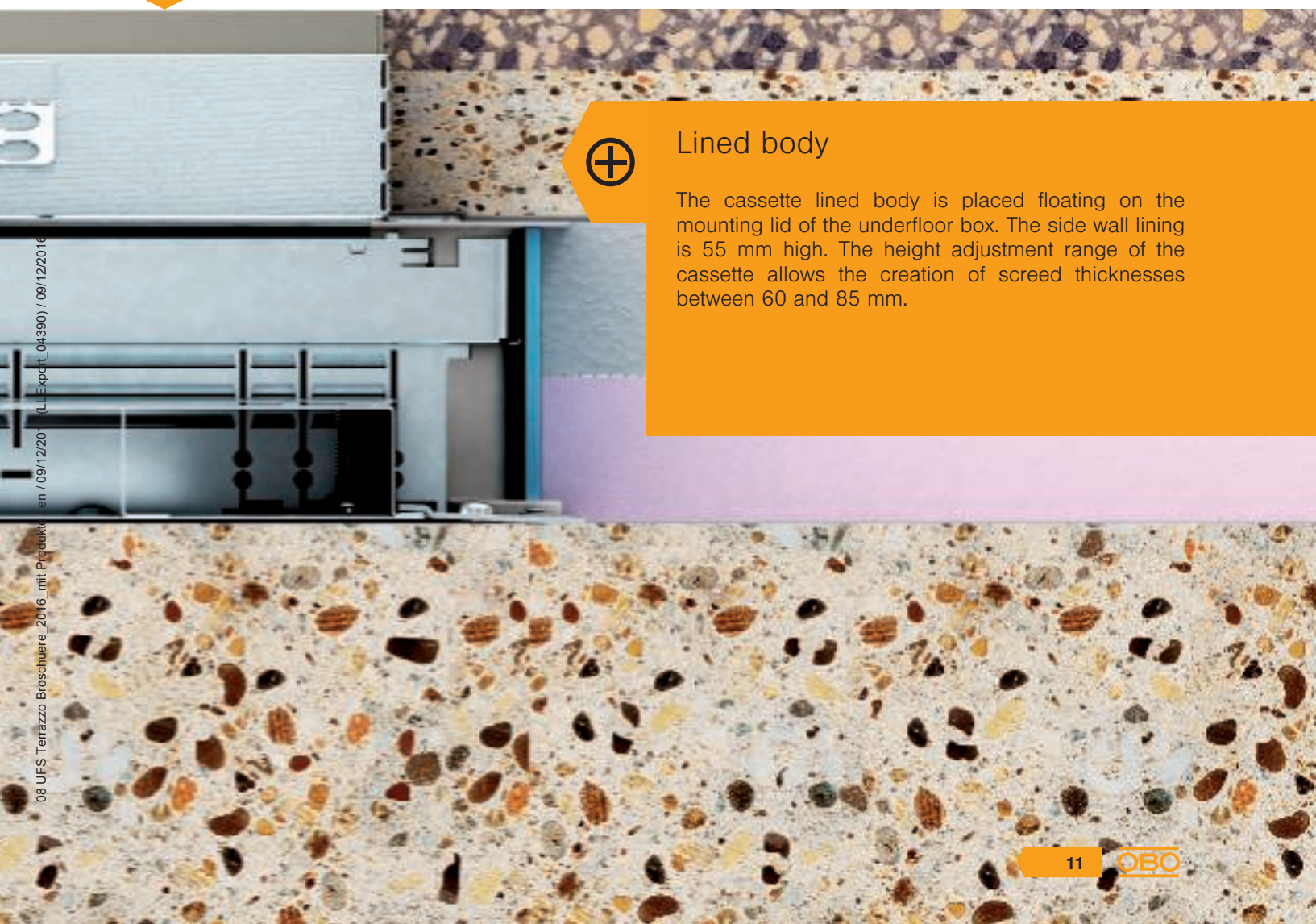
## Polishing operation

For screed work, the aluminium mounting protection lid is inserted in the cassette frame. The mounting protection lid is covered with screed in the edge area and is polished together with the floor area. Fine polishing takes place in the same manner of the working of edge areas. The use layer is polished exactly to the top edge of the cassette.



## Lined body

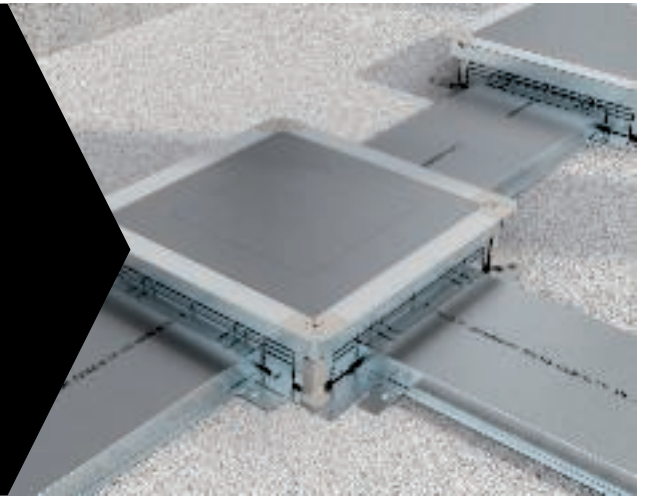
The cassette lined body is placed floating on the mounting lid of the underfloor box. The side wall lining is 55 mm high. The height adjustment range of the cassette allows the creation of screed thicknesses between 60 and 85 mm.



# Mounting

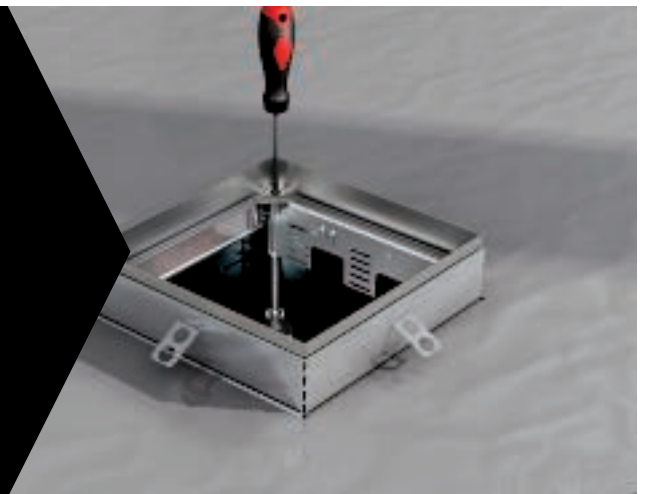
## Mounting the duct system

According to the planning specifications, underfloor boxes are mounted at the intended points in the room. The underfloor ducts form the grid between the underfloor boxes, which are adjusted to the top edge of the insulation layer. The cassette lined body is mounted floating on the mounting lid of the underfloor box.



## Mounting cassette lined bodies and cassettes

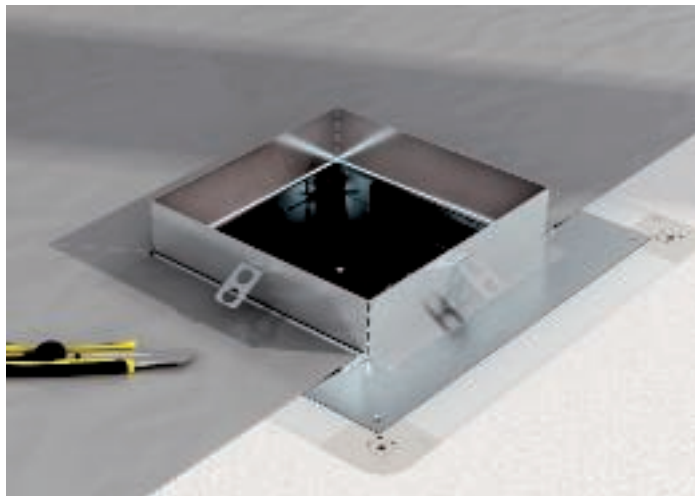
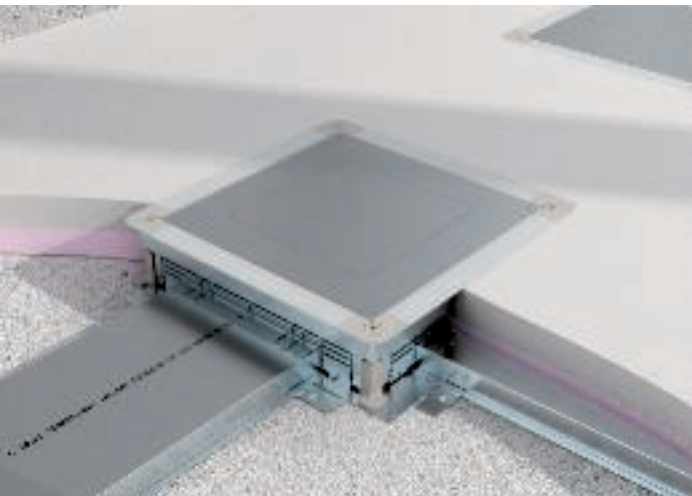
The cassette is fastened onto the raw concrete through the floor plate of the underfloor box and adjusted to the specified top edge of the finished screed floor. The mounting protection lid is inserted in the cassette frame. The screed is worked directly up to the cassette frame and the mounting protection lid is covered with the decorative screed layer.



## Polishing the screed layer

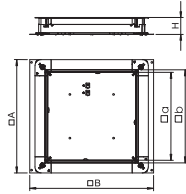
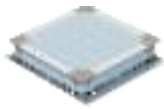
The mounting protection lid is polished in the first polishing operations. During polishing, it is important that the screed can be worked up to existing edges and can be polished, in order to avoid joint edges. The screed is poured into the lid of the cassette and is specially polished with suitable tools, in order to create an even surface.





Polishable cassette lined body for ready-to-lay screeds /  
Terrazzo, nominal size 9

### UZD250-3 underfloor box



Type	Dimen- sion A mm	Dimen- sion B mm	Dimen- sion a mm	Dimen- sion b mm	Screed height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UZD 250-3</b>	367	410	262	283	70	1	420,000	<b>7410030</b>
<b>UZD 115170 250-3</b>	367	410	262	283	115	1	480,000	<b>7410043</b>
<b>UZD 165220 250-3</b>	367	410	262	283	165	1	530,000	<b>7410052</b>

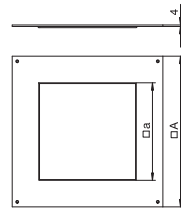
**St** Steel

**FS** Strip-galvanised

/pc.

Underfloor junction and branch box for screed-covered underfloor installation systems.  
Side walls are prepared for duct widths 190 and 250 mm.

### Mounting lid 250-3 for GES9



Type	Dimen- sion A mm	Dimen- sion a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>DUG 250-3 9</b>	282	244	1	62,000	<b>7400467</b>

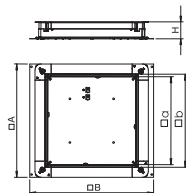
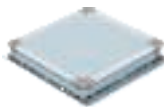
**St** Steel

**FS** Strip-galvanised

/pc.

Mounting lid for underfloor junction and branch box of type UZD250-3 for the installation of a installation unit of nominal size 9. Installation opening 3 mm recessed for later blanking lock with lid blind plate.

### UZD350-3 underfloor box



Type	Dimen- sion A mm	Dimen- sion B mm	Dimen- sion a mm	Dimen- sion b mm	Screed height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UZD 350-3</b>	467	510	362	383	70	1	590,000	<b>7410034</b>
<b>UZD 115170 350-3</b>	467	510	362	383	115	1	665,000	<b>7410047</b>
<b>UZD 165220 350-3</b>	467	510	362	383	165	1	740,000	<b>7410056</b>

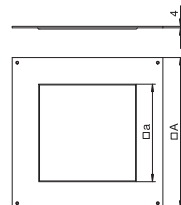
**St** Steel

**FS** Strip-galvanised

/pc.

Underfloor junction and branch box for screed-covered underfloor installation systems.  
Side walls prepared for duct widths of 190, 250 and 350 mm.

### Mounting lid 350-3 for GES9



Type	Dimen- sion A mm	Dimen- sion a mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>DUG 350-3 9</b>	383	244	1	267,000	<b>7400513</b>

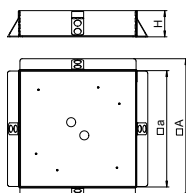
**St** Steel

**FS** Strip-galvanised

/pc.

Mounting lid for underfloor junction and branch box of type UZD350-3 for the installation of a installation unit of nominal size 9. Installation opening 3 mm recessed for later blanking lock with lid blanking plate.

### Terrazzo lined body for height-adjustable cassettes, nominal size 9



Type	Material symbol	Dimen- sion h mm	Nominal size	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SK RK9</b>	St	55	9	1	190,000	<b>7404372</b>

**St** Steel

**FS** Strip-galvanised

/pc.

Casing, suitable for polishing, for the direct and jointless installation of height-adjustable cassettes, nominal size 9, into surface-finished screeds/terrazzo floorings.

The casing is laid floatingly onto underfloor boxes with mounting lids of nominal size 9, closing the gaps between underfloor box and cassette frame. The protection cover made from aluminium sheet is put into the cassette frame as a dummy before the screed work is done and can be polished over with the screed or terrazzo.

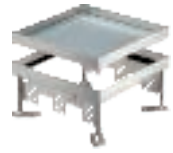
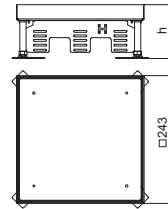
### Height-adjustable cassette for inspection opening, RKN, stainless steel

Type	Nominal size	Dimension h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKN2 9 VS 20</b>	9	100	20	100	1	440,000	<b>7409044</b>
<b>RKN2 9 VS 25</b>	9	105	25	105	1	451,000	<b>7409046</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable "blank" cassette for the creation of an inspection opening of nominal size 9 in dry or wet-cleaned floors. Only suitable for smooth floor coverings.



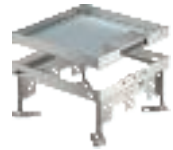
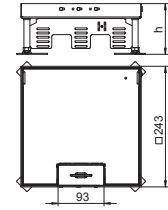
### Height-adjustable cassette with cord outlet, RKSN, stainless steel

Type	Nominal size	Dimension h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKSN2 9 VS 20</b>	9	105	20	105	1	430,000	<b>7409218</b>
<b>RKSN2 9 VS 25</b>	9	110	25	110	1	444,000	<b>7409220</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable cassette of nominal size 9 with cord outlet for installation of accessories in dry-care floors.



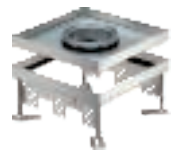
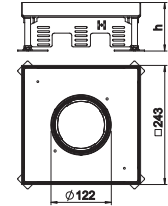
### Height-adjustable cassette for tube body, RKFN, stainless steel

Type	Nominal size	Dimension h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKFN2 9 VS 20</b>	9	105	20	105	1	407,100	<b>7409368</b>
<b>RKFN2 9 VS 25</b>	9	110	25	110	1	501,000	<b>7409370</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable cassette of nominal size 9 for tube body for installation of accessories in dry or wet-cleaned floors.



### Height adjustment unit RKNEV2

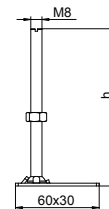
Type	Dimension h mm	Pack. PU	Weight kg/100 PUs	Item No.
<b>RK NEV2 110</b>	110	1	25,200	<b>7405815</b>
<b>RK NEV2 150</b>	150	1	30,000	<b>7405816</b>
<b>RK NEV2 190</b>	190	1	35,000	<b>7405817</b>
<b>RK NEV2 230</b>	230	1	40,000	<b>7405818</b>
<b>RK NEV2 270</b>	270	1	45,800	<b>7405819</b>

St Steel

/VPE

G Electrogalvanised

For flush-floor height-adjustment of the height-adjustable cassette units and the OKB screed-flush trunking system. The VPE consists of 4 height adjustment units.

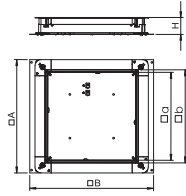
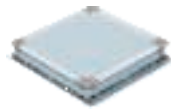


#### Dimensions

Dimension "h" mm	RKN2, 20 mm	RKN2, 25 mm	RK(S+F)N2, 20 mm	RK(S+F)N2, 25 mm	RKR2, 20/25 mm	RK(S+F)R2, 20/25 mm	OKB mm
110	140 - 190	145 - 195	145 - 190	150 - 195	145 - 195	150 - 195	133 - 173
150	180 - 230	185 - 235	185 - 230	190 - 235	185 - 235	190 - 235	173 - 213
190	220 - 270	225 - 275	225 - 270	230 - 275	225 - 275	230 - 275	213 - 253
230	260 - 310	265 - 315	265 - 310	270 - 315	265 - 315	270 - 315	253 - 293
270	300 - 350	305 - 355	305 - 350	310 - 355	305 - 355	310 - 355	293 - 333

Polishable cassette lined body for ready-to-lay screeds /  
Terrazzo, nominal size R9

### UZD350-3 underfloor box



Type	Dimen- sion A mm	Dimen- sion B mm	Dimen- sion a mm	Dimen- sion b mm	Screed height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>UZD 350-3</b>	467	510	362	383	70	1	590,000	<b>7410034</b>
<b>UZD 115170 350-3</b>	467	510	362	383	115	1	665,000	<b>7410047</b>
<b>UZD 165220 350-3</b>	467	510	362	383	165	1	740,000	<b>7410056</b>

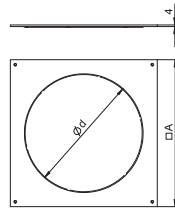
**SI** Steel

**FS** Strip-galvanised

/pc.

Underfloor junction and branch box for screed-covered underfloor installation systems.  
Side walls prepared for duct widths of 190, 250 and 350 mm.

### Mounting lid 350-3 for GESR9



Type	Dimen- sion A mm	Dimen- sion d Ø mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>DUG 350-3 R9</b>	383	305	1	230,000	<b>7400549</b>

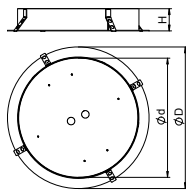
**SI** Steel

**FS** Strip-galvanised

/pc.

Mounting lid for underfloor junction and branch boxes of type UZD350-3 for the installation of an installation unit of nominal size R9. Installation opening 3 mm recessed as a later blanking lock with lid blanking plate.

### Terrazzo lined body for height-adjustable cassettes, nominal size 9



Type	Material symbol	Dimen- sion h mm	Nominal size	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>SK RKR9</b>	V2A	55	R9	1	220,000	<b>7404376</b>

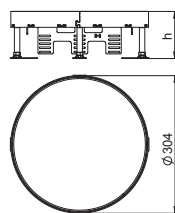
V2A Stainless steel, grade 304

/pc.

Casing, suitable for polishing, for the direct and jointless installation of round height-adjustable cassettes, nominal size 9, into surface-finished screeds/terrazzo floorings. The casing is laid floatingly onto underfloor boxes with mounting lids of nominal size 9, closing the gaps between underfloor box and cassette frame.

The protection cover made from aluminium sheet is put into the cassette frame as a dummy before the screed work is done and can be polished over with the screed or terrazzo.

### Height-adjustable cassette for inspection opening, RKR, stainless steel



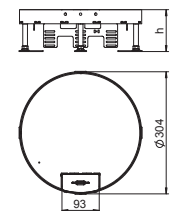
Type	Nominal size	Dimen- sion h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKR2 9V 20</b>	R9	105	20	105	1	453,000	<b>7409128</b>
<b>RKR2 9V 25</b>	R9	105	25	105	1	750,000	<b>7409130</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable "blank" cassette for the creation of an inspection opening of nominal size R9 in dry or wet-cleaned floors. Only suitable for smooth floor coverings.

### Height-adjustable cassette with cord outlet, RKSr, stainless steel



Type	Nominal size	Dimen- sion h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKS2 R9 V20</b>	R9	110	20	110	1	420,000	<b>7409278</b>
<b>RKS2 R9 V25</b>	R9	110	25	110	1	420,000	<b>7409280</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable cassette of nominal size R9 with cord outlet for installation of accessories in dry-care floors.



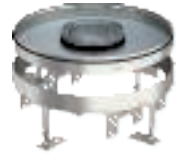
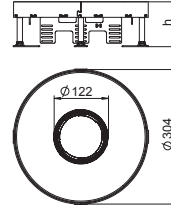
## Height-adjustable cassette for tube body, RKFR, stainless steel

Type	Nominal size	Dimension h mm	Floor covering thickness mm	Floor height mm	Pack. pcs	Weight kg/100 pcs.	Item No.
<b>RKFR2 9 V20</b>	R9	110	20	110	1	380,000	<b>7409430</b>
<b>RKFR2 9 V25</b>	R9	110	25	110	1	380,000	<b>7409432</b>

V2A Stainless steel, grade 304

/pc.

Height-adjustable cassette of nominal size R9 for tube body for installation of accessories in dry or wet-cleaned floors.



## Height adjustment unit RKNEV2

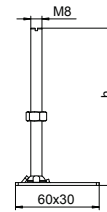
Type	Dimension h mm	Pack. PU	Weight kg/100 PUs	Item No.
<b>RK NEV2 110</b>	110	1	25,200	<b>7405815</b>
<b>RK NEV2 150</b>	150	1	30,000	<b>7405816</b>
<b>RK NEV2 190</b>	190	1	35,000	<b>7405817</b>
<b>RK NEV2 230</b>	230	1	40,000	<b>7405818</b>
<b>RK NEV2 270</b>	270	1	45,800	<b>7405819</b>

Sl Steel

/VPE

G Electrogalvanised

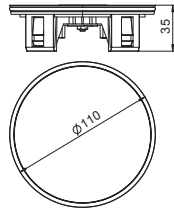
For flush-floor height-adjustment of the height-adjustable cassette units and the OKB screed-flush trunking system. The VPE consists of 4 height adjustment units.



Dimension "h" mm	RKN2, 20 mm mm	RKN2, 25 mm mm	RK(S+F)N2, 20 mm mm	RK(S+F)N2, 25 mm mm	RKR2, 20/25 mm mm	RK(S+F)R2, 20/25 mm mm	OKB mm
110	140 - 190	145 - 195	145 - 190	150 - 195	145 - 195	150 - 195	133 - 173
150	180 - 230	185 - 235	185 - 230	190 - 235	185 - 235	190 - 235	173 - 213
190	220 - 270	225 - 275	225 - 270	230 - 275	225 - 275	230 - 275	213 - 253
230	260 - 310	265 - 315	265 - 310	270 - 315	265 - 315	270 - 315	253 - 293
270	300 - 350	305 - 355	305 - 350	310 - 355	305 - 355	310 - 355	293 - 333

Dimensions

### Tube body with cover plate, without handle clamp, for frame cassette and height-adjustable cassette



**Type**

**TUK2 V**

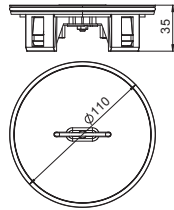
- Zn Die-cast zinc
- N Nickel-plated

Pack. pcs	Weight kg/100 pcs.	Item No.
1	59,000	7428141

/pc.

Height-adjustable cord outlet for installation in RKF frame cassettes and in height-adjustable round and square RKFR and RKFN cassettes. Raised height when used, flushfloor when unused. Use in wet-care floors. Tube body cover made of V2A.

### Tube body with cover plate, with handle clamp, for frame cassette and height-adjustable cassette



**Type**

**TUK2 GV**

- Zn Die-cast zinc
- N Nickel-plated

Pack. pcs	Weight kg/100 pcs.	Item No.
1	59,000	7428140

/pc.

Height-adjustable cord outlet for installation in RKF frame cassettes and in height-adjustable round and square RKFR and RKFN cassettes. Raised height when used, flushfloor when unused. Use in wet-care floors. Tube body cover and handle made of V2A.



## Planning checklist

When planning lined body systems for polished floors, the following points should be observed:

- ✓ Matching of the floor structure (screed height, screed type, insulation layers, sealing, etc.) with the architecture
- ✓ Matching the structural physics requirements (Load capacity of the cassette)
- ✓ We recommend inter-unit matching for the entire creation process
- ✓ Matching cassettes to the architecture according to the planned floor cleaning method
- ✓ Specify the spacing between two underfloor sockets taking the tensile loading and occurring bend radii into account

**OBO Bettermann GmbH & Co. KG**

P.O. Box 1120  
58694 Menden, Germany

**Customer Service Germany**

Tel. +49 (0)2373 89-1700  
Fax +49 (0)2373 89-1238  
E-mail: [export@obo.de](mailto:export@obo.de)

[www.obo-bettermann.com](http://www.obo-bettermann.com)

---

**Building Connections**

