

Units for screed and hollow floors

Technical information

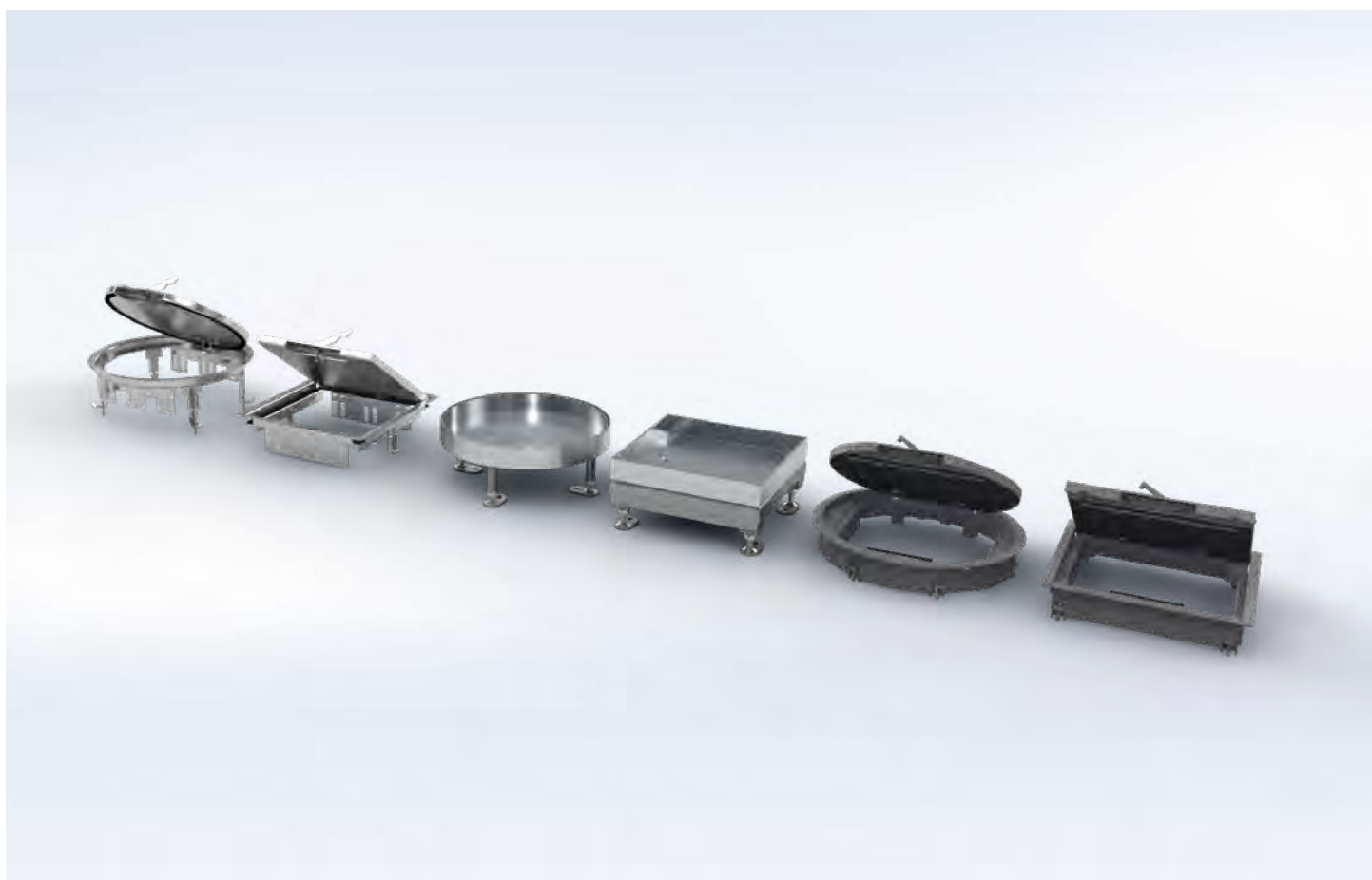
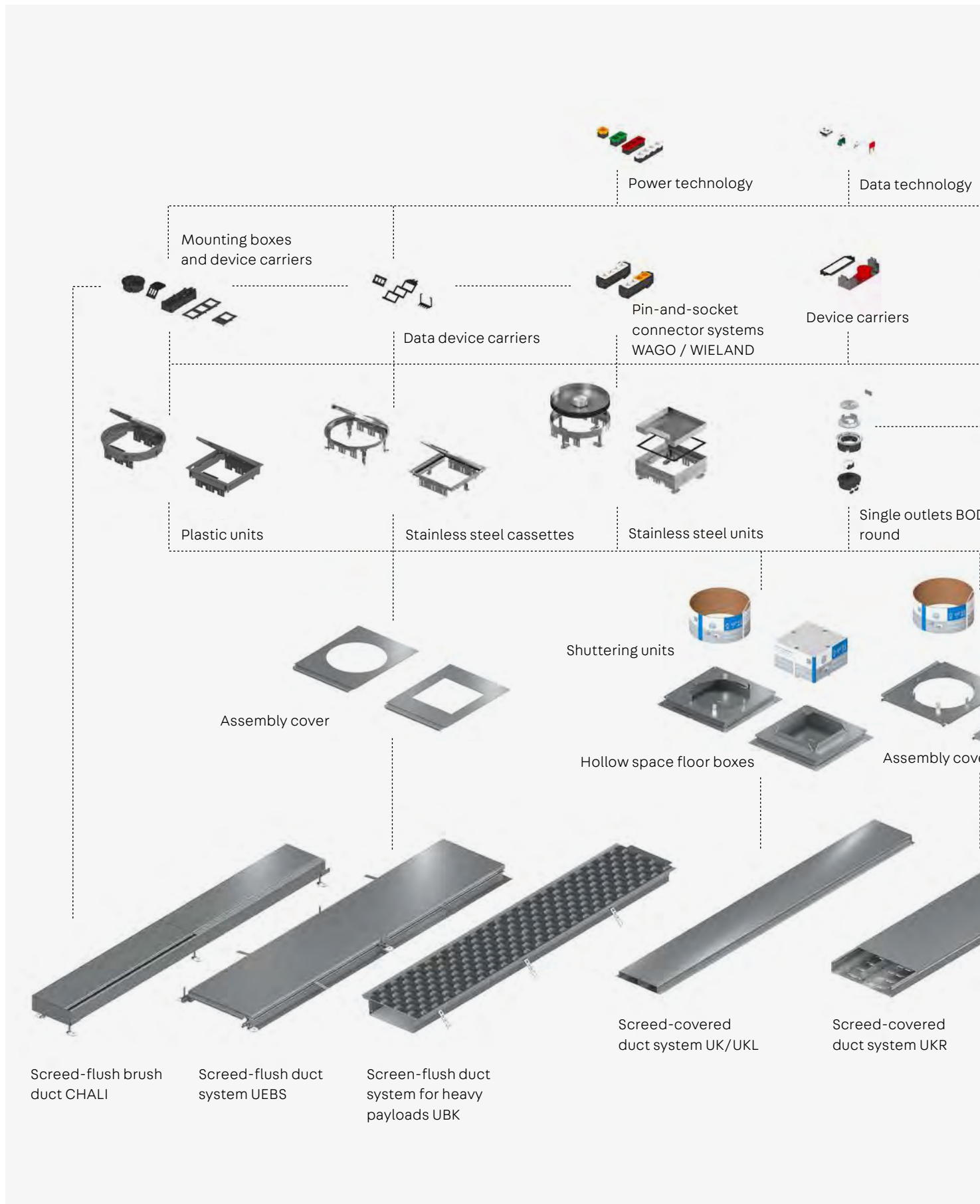


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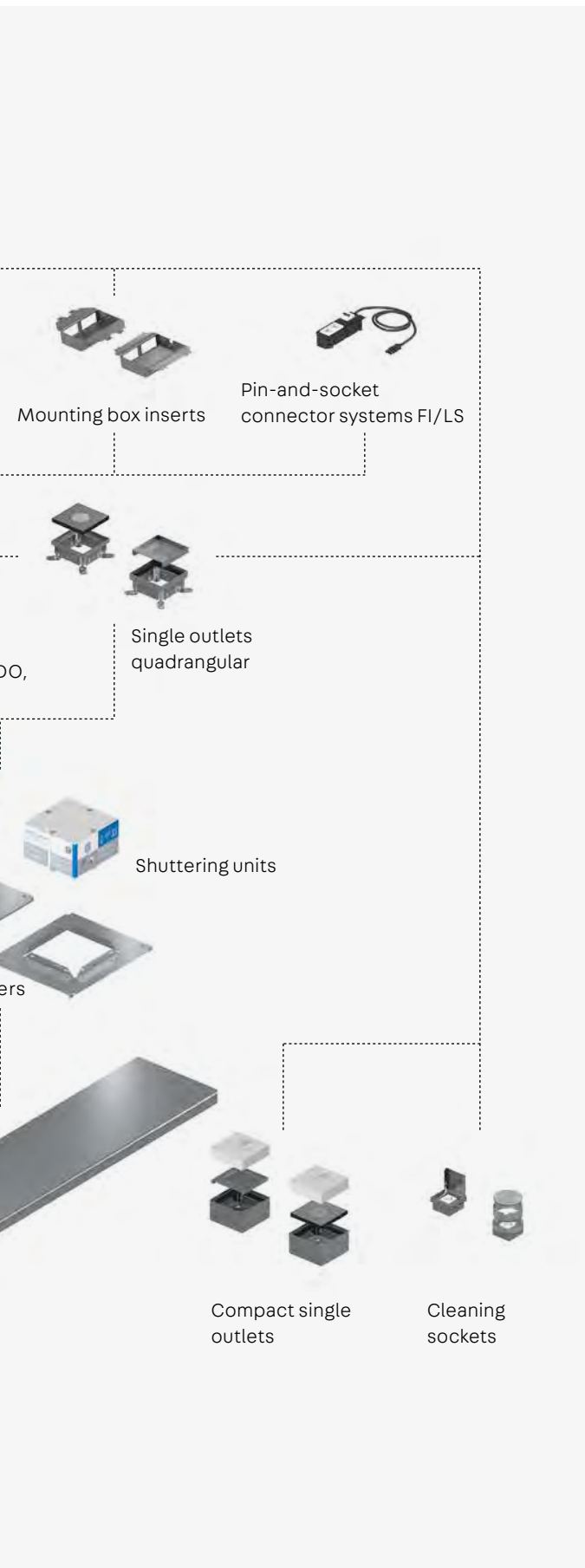


Overview of underfloor systems

The wide variety of our range of units provides the perfect solution for any situation regardless of size, shape, equipment variants or spatial requirements. The units have to comply with different product requirements depending on the field of application. This is why we offer you a comprehensive range of solutions for low to high loads and for dry-cleaned to wet-cleaned floors. Here you will find solutions that enhance both the function and appearance of your interiors.

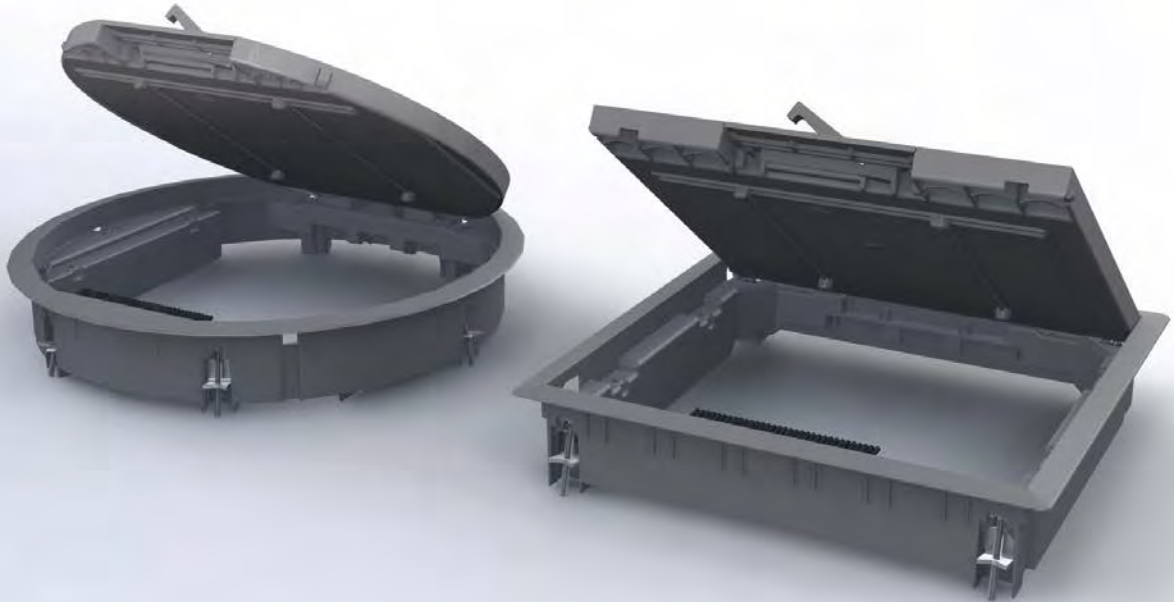


Our units are described as triple or double depending on how many mounting boxes the unit can hold. The mounting boxes can hold a maximum of four 45x45 installation devices or three coultier clip installation devices.



UEB / UEK

Plastic units



Benefits

- Discreet, VDE-compliant power supply
- Patented brush outlet keeps out dust
- Lever for easy opening
- Cost-efficient
- Adapts to on-site conditions
- Easy to assemble
- Easy to replace
- Can be used as an inspection opening
- Halogen-free
- Other colours available on request

Areas of application

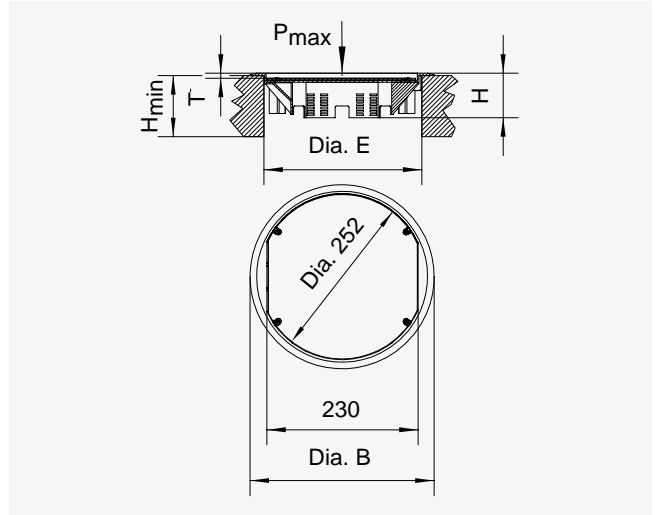
Plastic units provide user-friendly access to power connections and data connections in screed floors, raised floors and hollow floors. Depending on the application, they are available in round or angular forms, as versions with cable outlets, as inspection openings and in two different sizes. The patented brush cable outlet protects against the ingress of dust and guarantees that your power supply is VDE-compliant.



Technical building services

Technical data

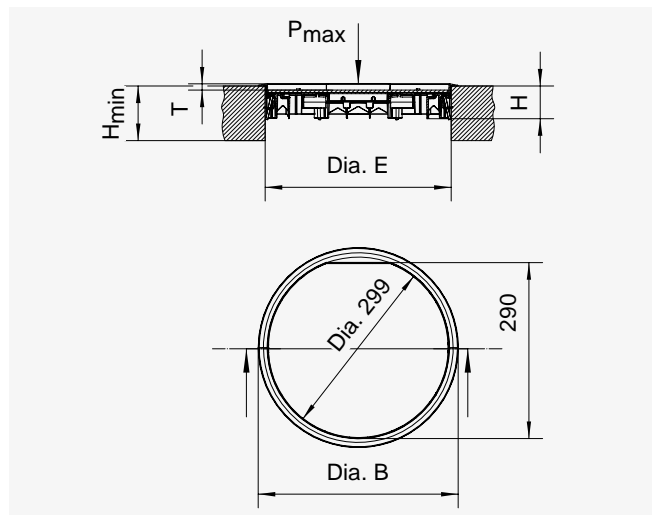
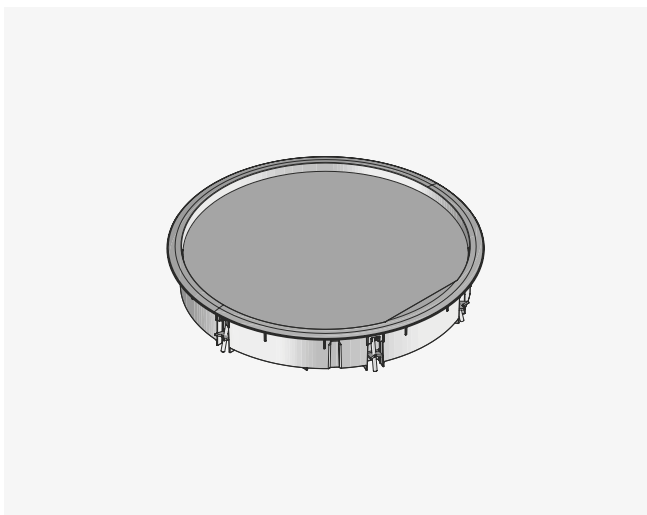
UEBD2 R Plastic dummy cover unit, double, round



Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	Colour	IP _n	G kg
UEBD2-R-S	65	65	280	260	8	2	RAL 9011 (graphite black)	IP 30	1.32
UEBD2-R-G	65	65	280	260	8	2	RAL 7011 (iron grey)	IP 30	1.32

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEB3 R Plastic dummy cover unit, triple, round

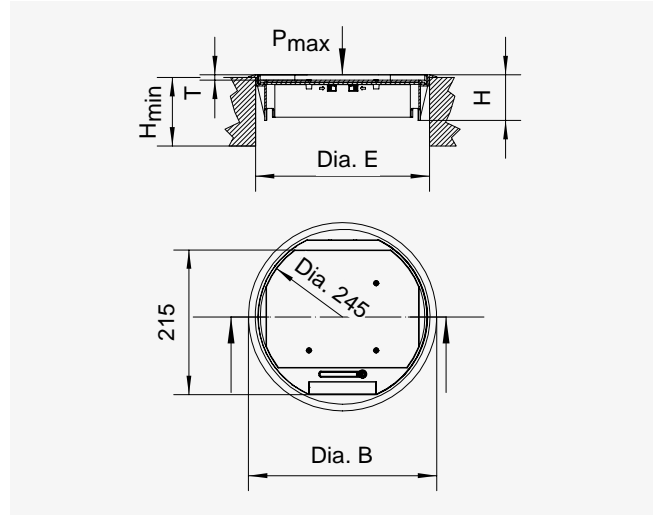


Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	Colour	IP _n	G kg
UEB3-R-S	58	63	330	307	10	2	RAL 9011 (graphite black)	IP 30	1.94
UEB3-R-G	58	63	330	307	10	2	RAL 7011 (iron grey)	IP 30	1.94

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

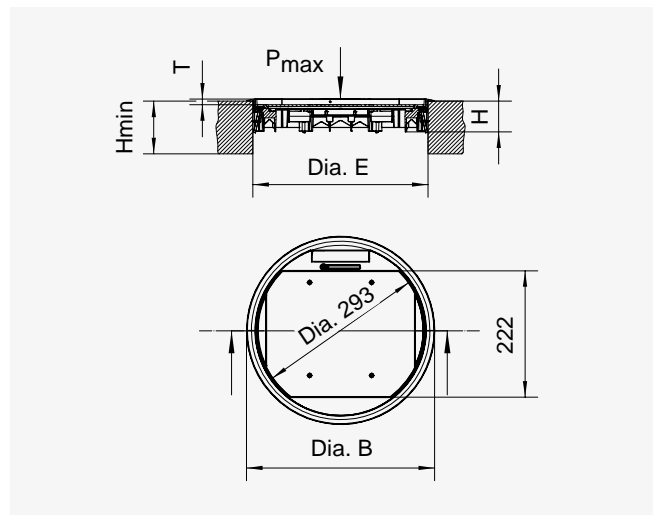
UEKD2 R Plastic hinged cover unit, double, round



Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	Colour	IP _n	IP _g	G kg
UEKD2-R-S	65	74	280	260	8	2	RAL 9011 (graphite black)	IP 30	IP 20	1.30
UEKD2-R-G	65	74	280	260	8	2	RAL 7011 (iron grey)	IP 30	IP 20	1.30

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEK3 R Plastic hinged cover unit, triple, round

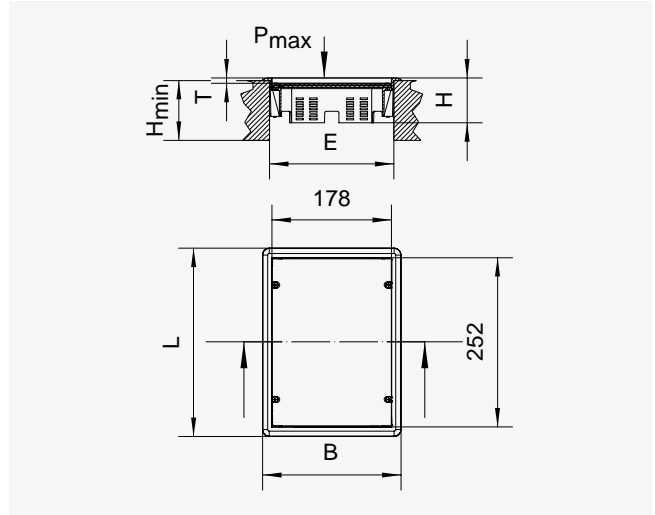
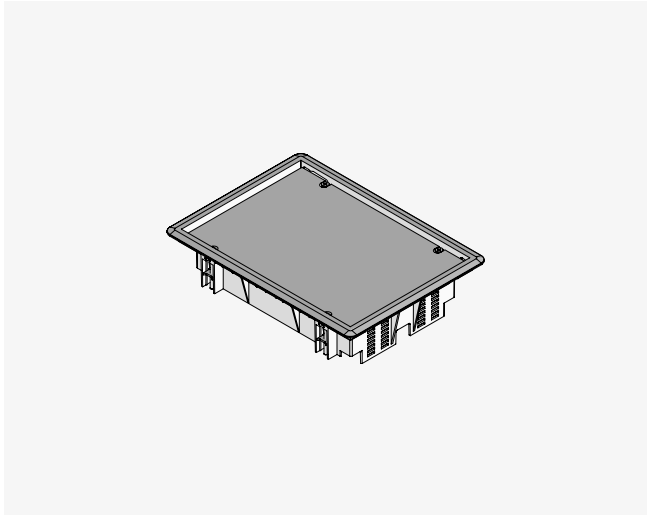


Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	Colour	IP _n	IP _g	G kg
UEK3-R-S	58	63	330	307	10	2	RAL 9011 (graphite black)	IP 30	IP 20	1.94
UEK3-R-G	58	63	330	307	10	2	RAL 7011 (iron grey)	IP 30	IP 20	1.94

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

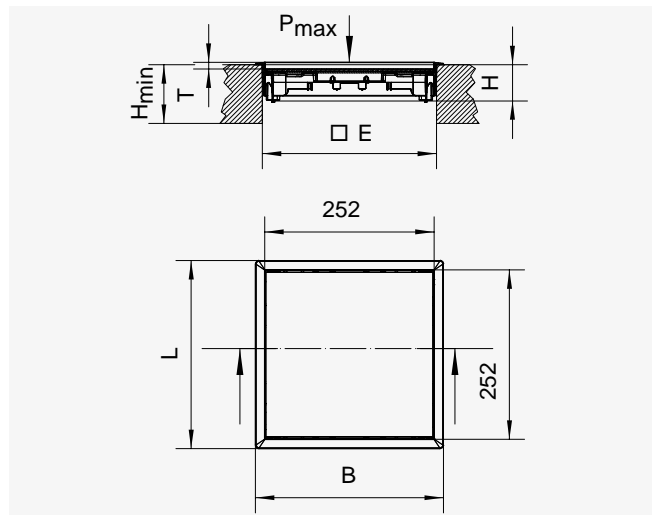
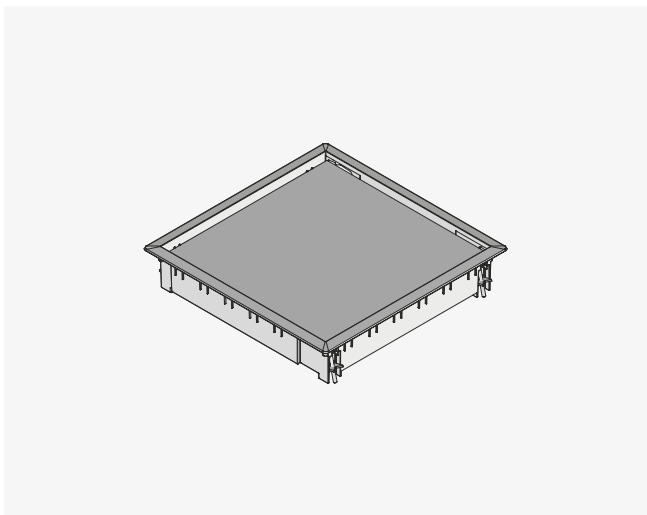
UEBD2 V Plastic dummy cover unit, double, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Colour	IP _n	G kg
UEBD2-V-S	65	65	206	280	261 x 186	8	2	RAL 9011 (graphite black)	IP 30	1.30
UEBD2-V-G	65	65	206	280	261 x 186	8	2	RAL 7011 (iron grey)	IP 30	1.30

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEB3 V Plastic dummy cover unit, triple, angular

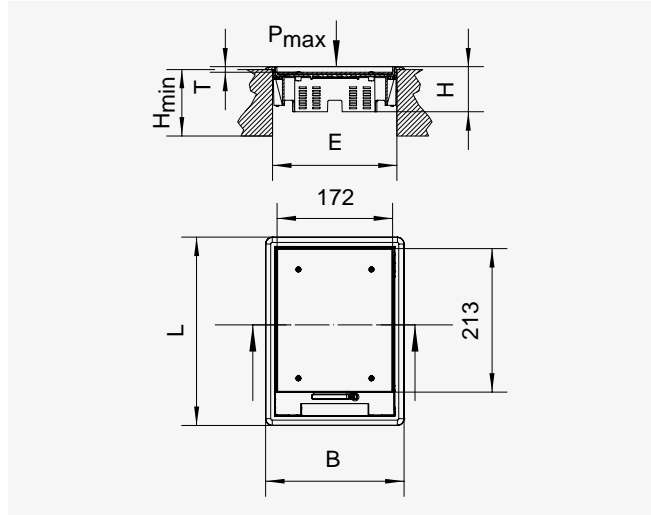
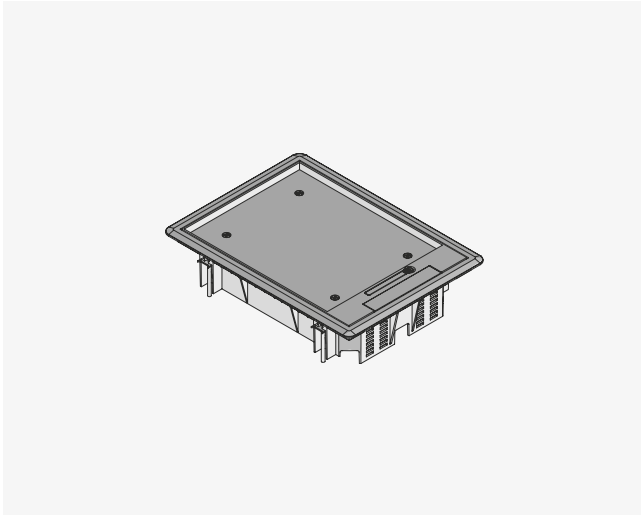


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Colour	IP _n	G kg
UEB3-V-S	58	63	280	280	260 x 260	10	2	RAL 9011 (graphite black)	IP 30	1.27
UEB3-V-G	58	63	280	280	260 x 260	10	2	RAL 7011 (iron grey)	IP 30	1.27

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

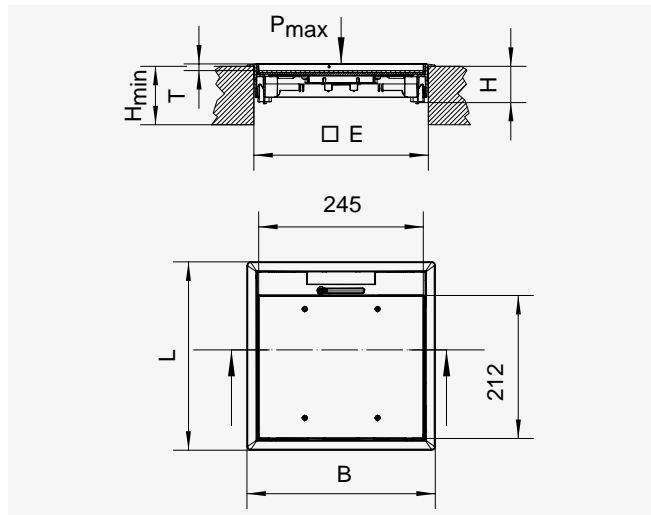
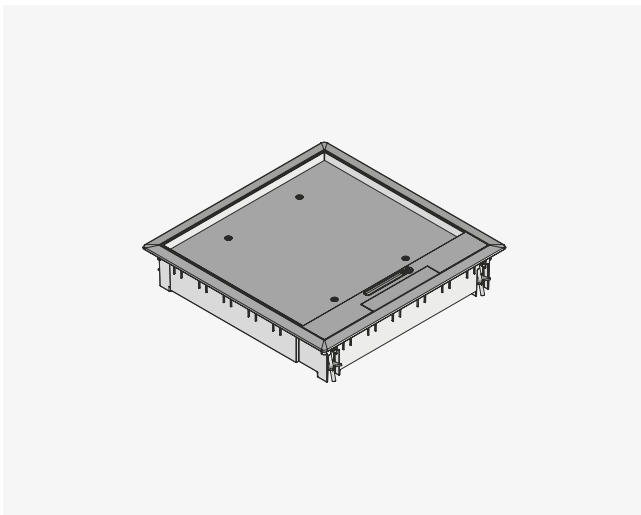
UEKD2 V Plastic hinged cover unit, double, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Colour	IP _n	IP _g	G kg
UEKD2-V-S	65	74	206	280	261 x 186	8	2	RAL 9011 (graphite black)	IP 30	IP 20	1.40
UEKD2-V-G	65	74	206	280	261 x 186	8	2	RAL 7011 (iron grey)	IP 30	IP 20	1.40

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

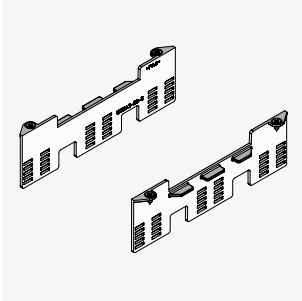
UEK3 V Plastic hinged cover unit, triple, angular



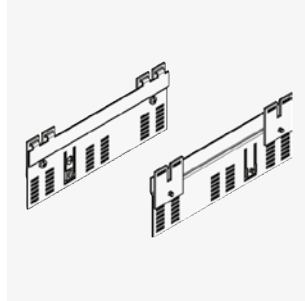
Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Colour	IP _n	IP _g	G kg
UEK3-V-S	58	63	280	280	260 x 260	10	2	RAL 9011 (graphite black)	IP 30	IP 20	1.80
UEK3-V-G	58	63	280	280	260 x 260	10	2	RAL 7011 (iron grey)	IP 30	IP 20	1.80

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

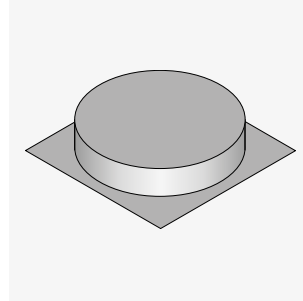
Installation components



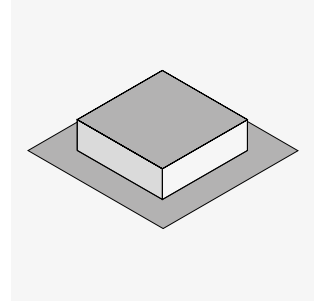
UGE A3
Snap-in ladder set for plastic unit, triple, snap-in spacing of 20 and 25 mm



UGEARL
Snap-in ladder extension, triple, snap-in spacing of 50 mm



USK R
Shuttering, round



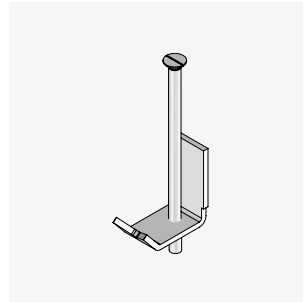
USK V
Shuttering, angular



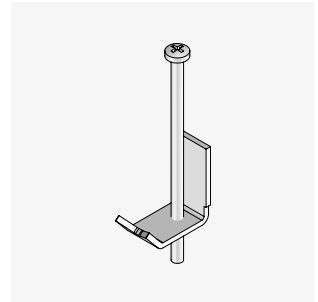
UDKS V 4
Universal claw set for hinged cover, angular



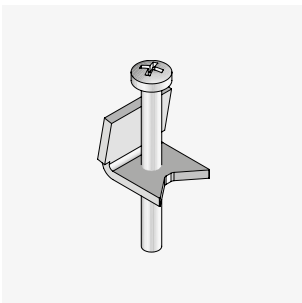
UDKSEB
Claw, screed-flush



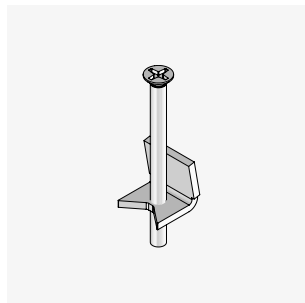
UDBS 40-80
Special claw



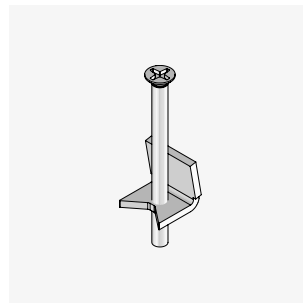
UDKS 40-80
Special claw



UDKS3
Universal claw



UDBS R 4
Universal claw set for dummy cover, round

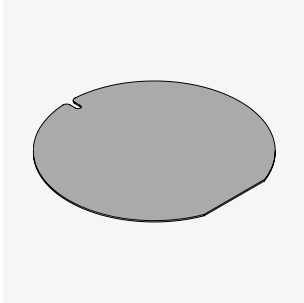


UDBS V 4
Universal claw set for dummy cover, angular

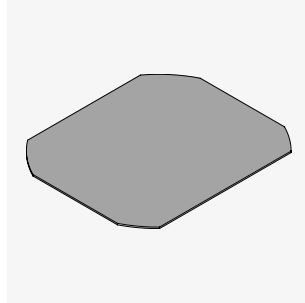


UDKS R 4
Universal claw set for hinged cover, round

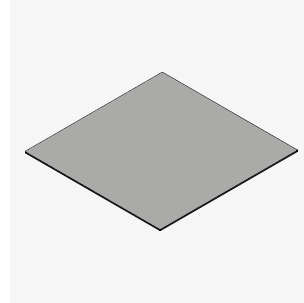
Installation components



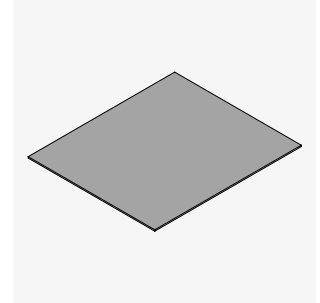
UEB R
Cover inlay made from cardboard or polyvinyl chloride, dummy cover, round; material thicknesses from 2 mm to 6 mm



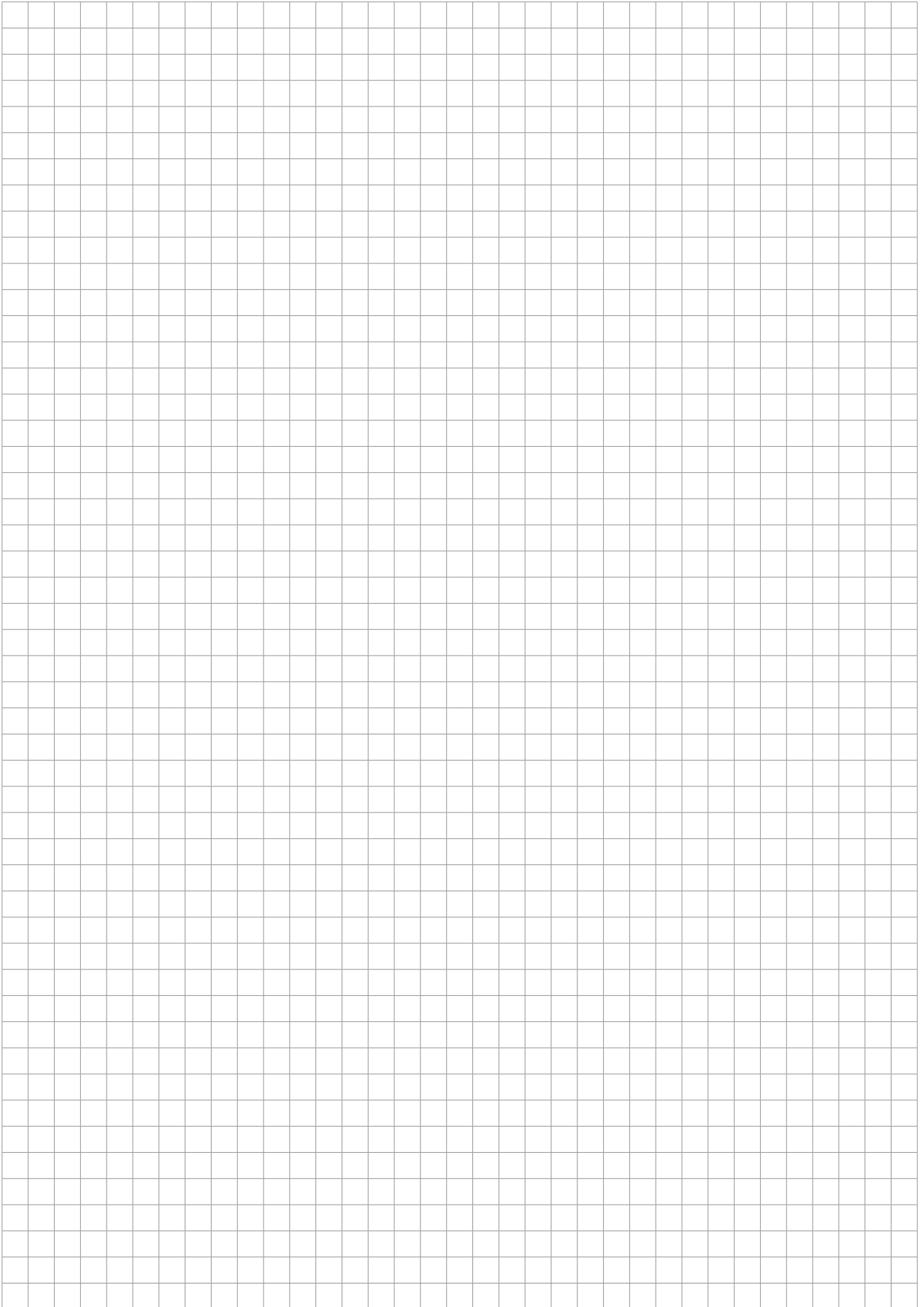
UEK R
Cover inlay made from cardboard or polyvinyl chloride, hinged cover, round; material thicknesses from 2 mm to 6 mm

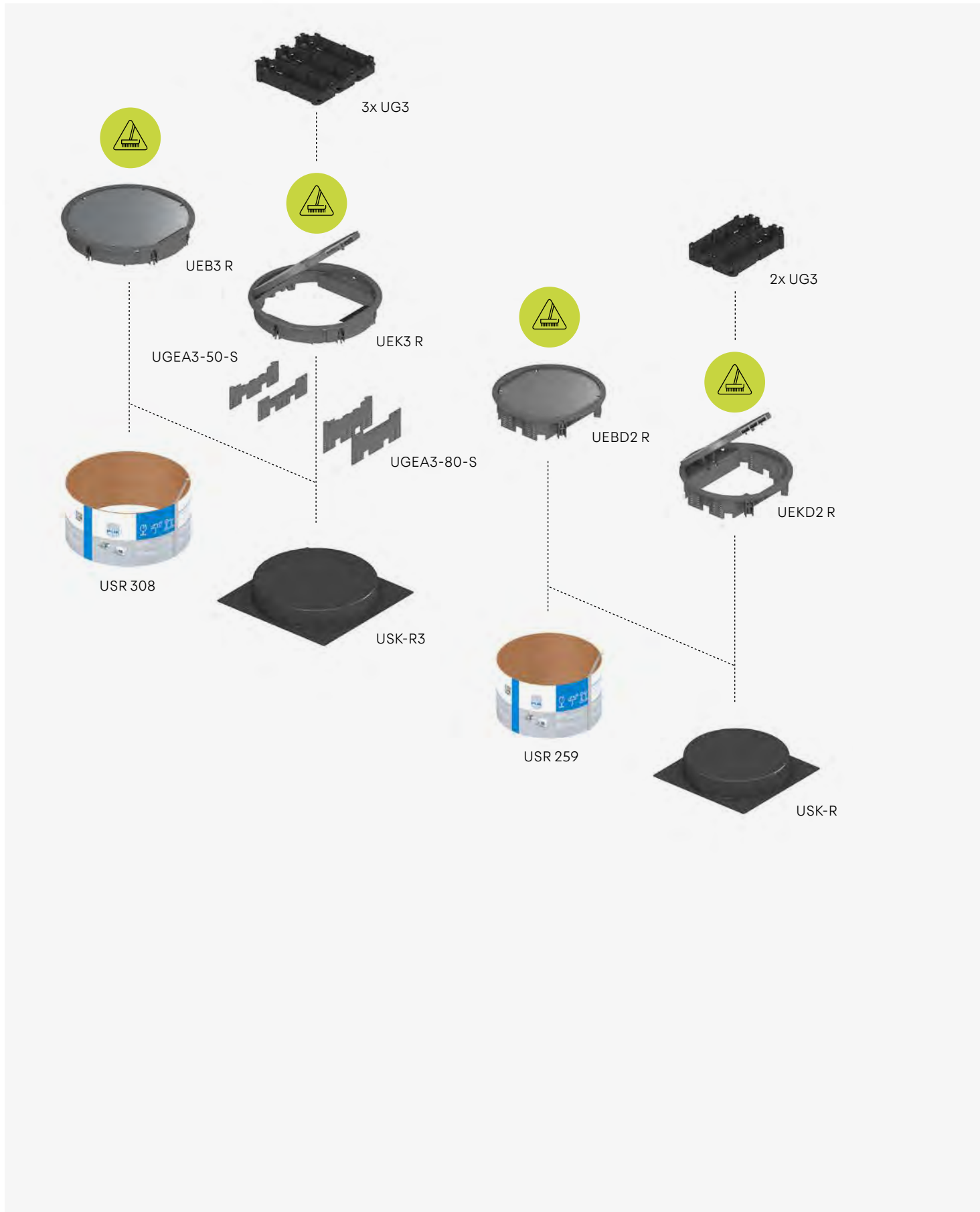


UEB V
Cover inlay made from cardboard or polyvinyl chloride, dummy cover, angular; material thicknesses from 2 mm to 6 mm



UEK V
Cover inlay made from cardboard or polyvinyl chloride, hinged cover, angular; material thicknesses from 2 mm to 6 mm

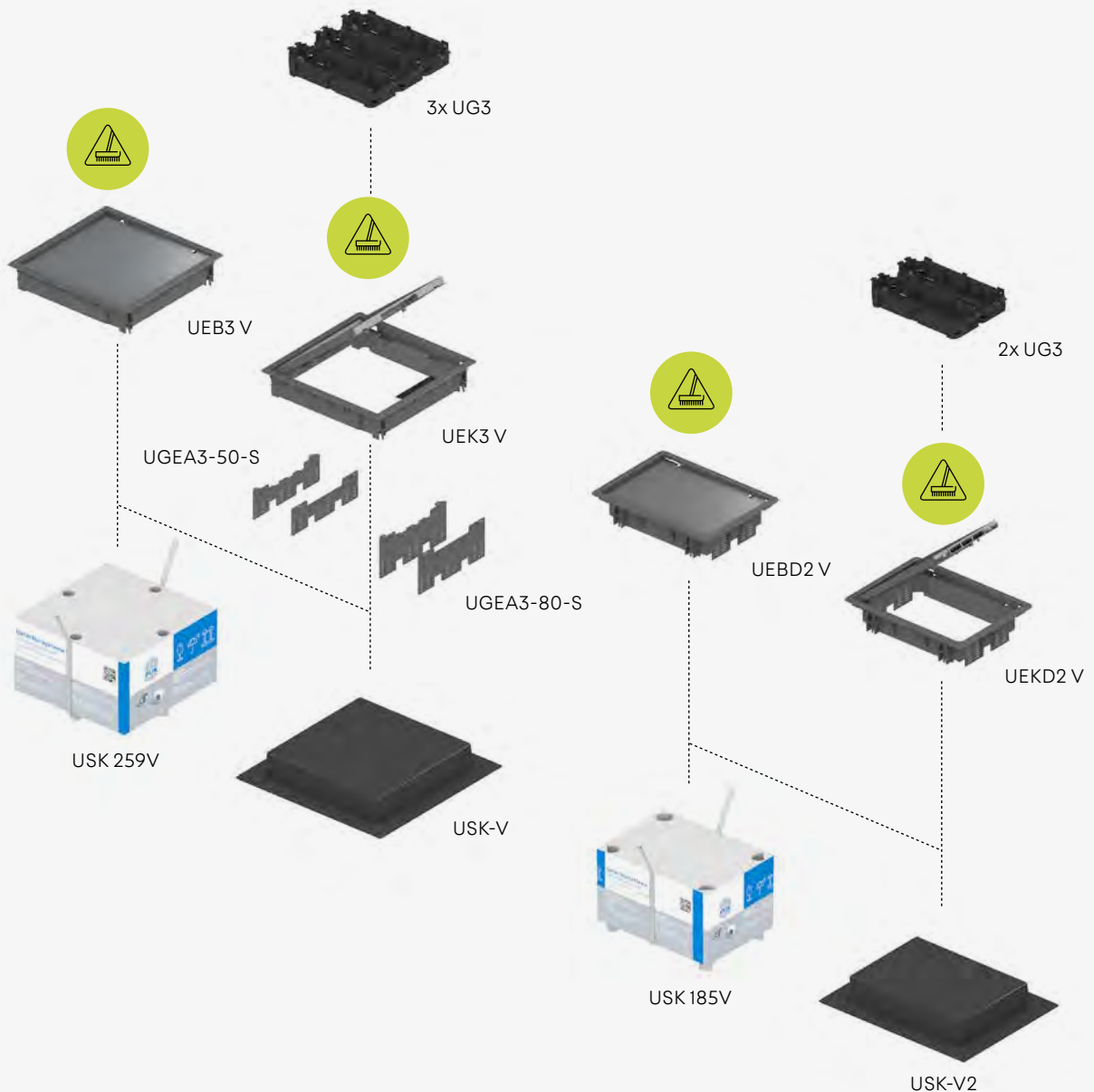




System overview

UEB / UEK

Plastic units let you supply conference rooms and offices, for example, with power and data right where you want them. They are designed for use in areas with normal office traffic loads and can be used in floor boxes, assembly covers or directly in raised floors and hollow floors. Dry-cleaned floor coverings up to 10 mm thick can be inserted directly into the unit. The units can be completed by adding two or three device holders even after installation.



UEBDD / UEKDD

Stainless steel cassettes



Benefits

- Edges of floor coverings protected by floor covering protection frame
- VDE-compliant power supply
- Designed for office traffic loads
- Solutions available for dry-cleaned or wet-cleaned floors
- Dimensionally stable, inconspicuous and exclusive appearance

Areas of application

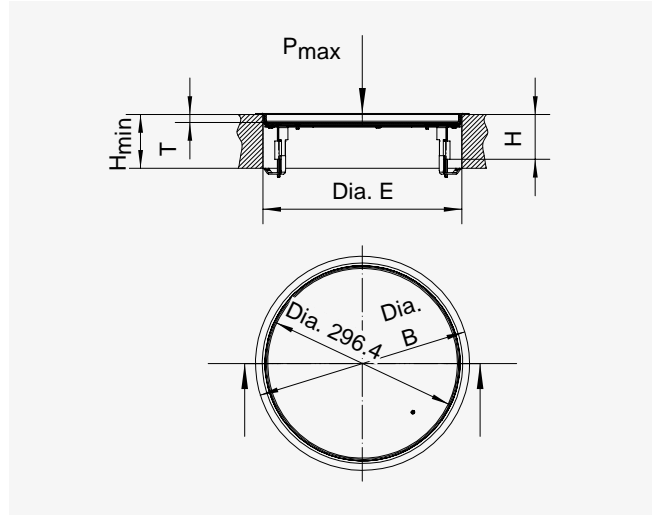
Stainless steel cassette units not only give you direct access to power and data connections, they also look particularly elegant in offices, event venues or showrooms thanks to their high-quality materials and classic design. These cassettes are specially designed for rooms with dry-cleaned and wet-cleaned floors. This makes them ideal for use with parquet flooring. This durable installation element is available in both round and square versions.



**Technical
building services**

Technical data

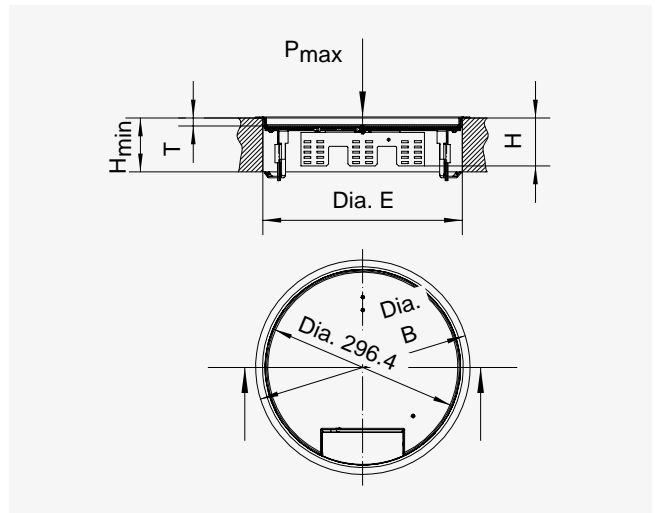
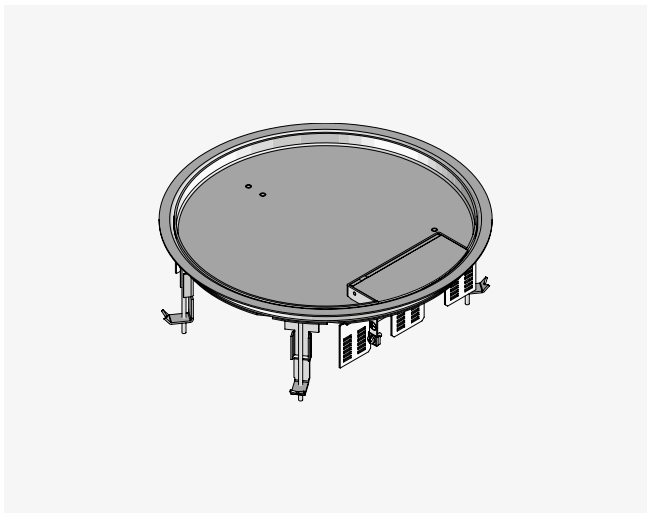
UEBDD R E Stainless steel dummy cover cartridge, triple, round



Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDD 15-R E	71	90	330	307	12	2	IP 30	2.18
UEBDD 25-R E	81	100	330	307	22	2	IP 30	2.44

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEKDD R E Stainless steel hinged cover cartridge, triple, round

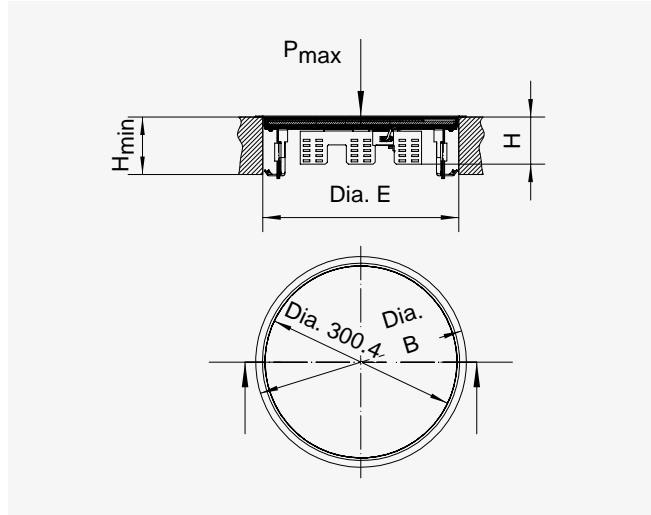
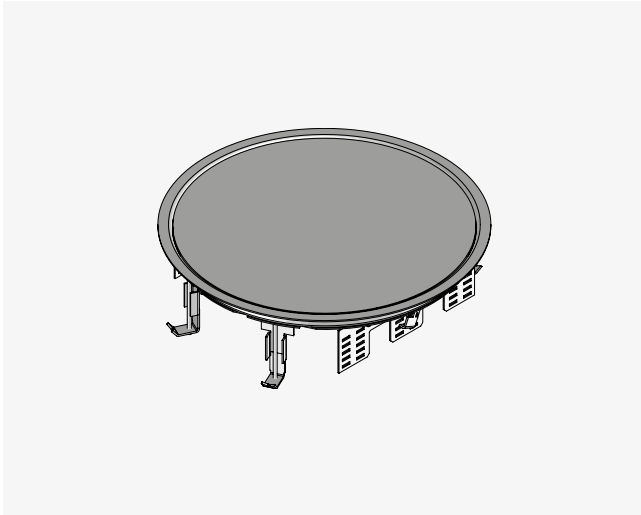


Type	H mm	H _{min} mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD 15-R E	76	90	330	307	12	2	IP 30	IP 20	2.55
UEKDD 25-R E	86	100	330	307	22	2	IP 30	IP 20	2.82

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

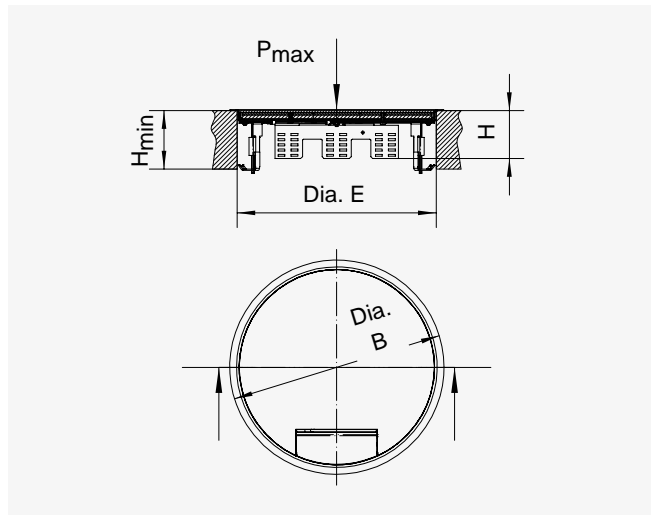
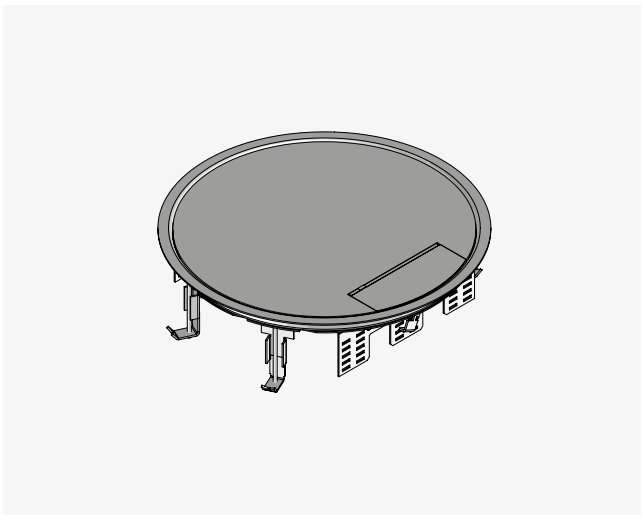
UEBDD RP E Stainless steel dummy cover cartridge, triple, round, flat



Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	IP _n	G kg
UEBDD 15-RP E	71	90	330	307	2	IP 30	5.46

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEKDD RP E Stainless steel hinged cover cartridge, triple, round, flat

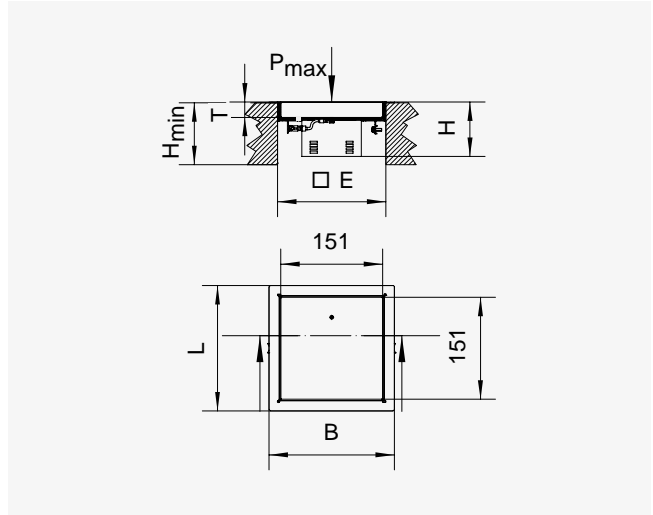
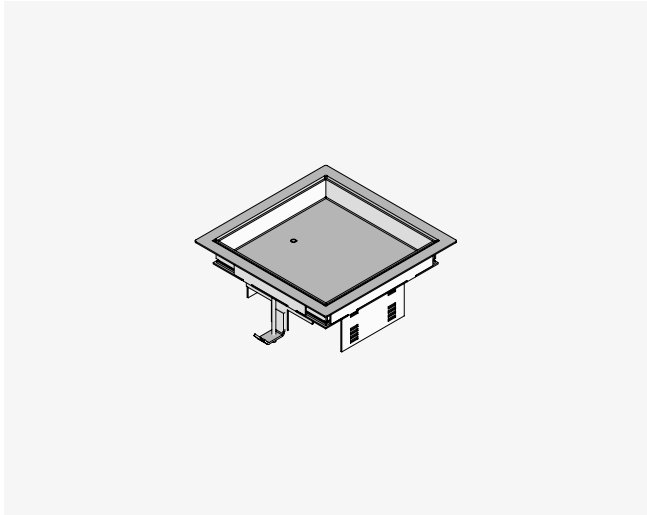


Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD 15-RP E	76	90	330	307	2	IP 30	IP 20	5.64

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

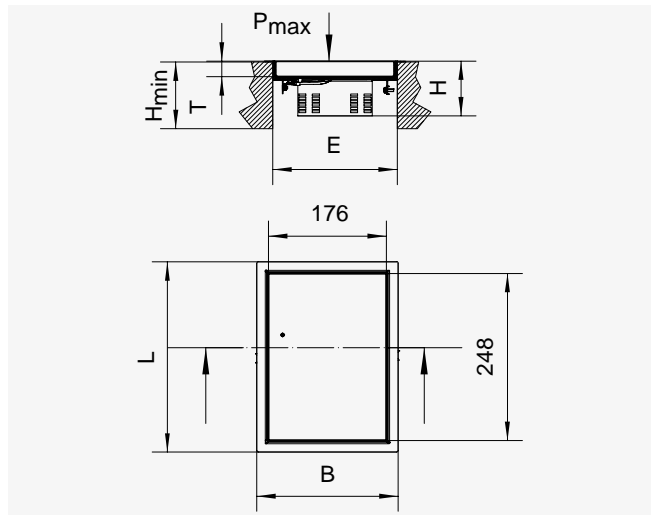
UEBDD1-2 V E Stainless steel dummy cover cartridge, single, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDD1-2 15-V E	71	80	186	186	165 x 165	12	1.5	IP 30	1.26
UEBDD1-2 25-V E	81	90	186	186	165 x 165	22	1.5	IP 30	1.41

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEBDD2 V E Stainless steel dummy cover cartridge, double, angular

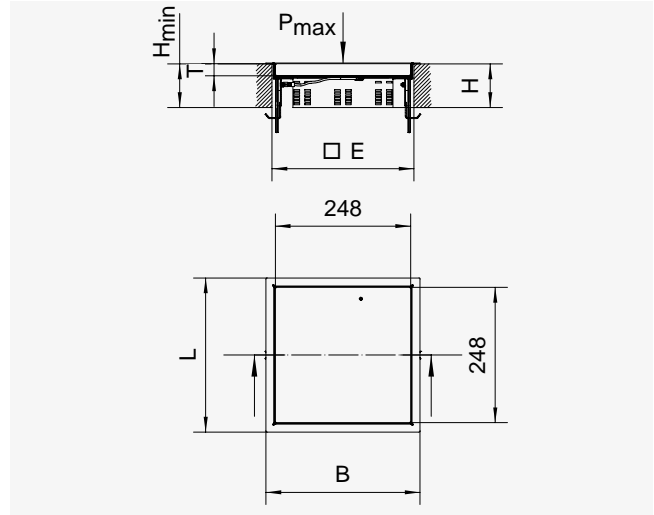
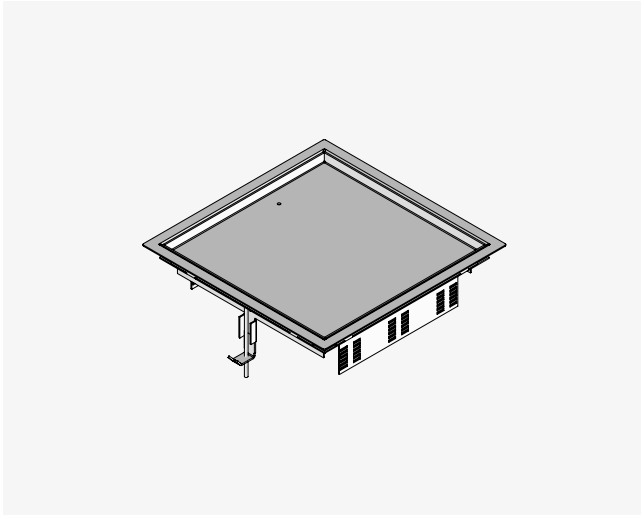


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDD2 15-V E	72	90	210	283	261 x 186	12	1.5	IP 30	1.71
UEBDD2 25-V E	82	100	210	283	261 x 186	22	1.5	IP 30	2.50

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

UEBDD V E Stainless steel dummy cover cartridge, triple, angular

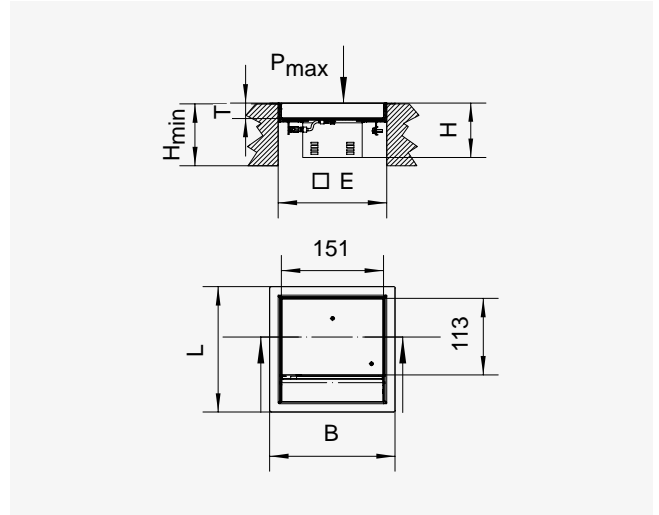
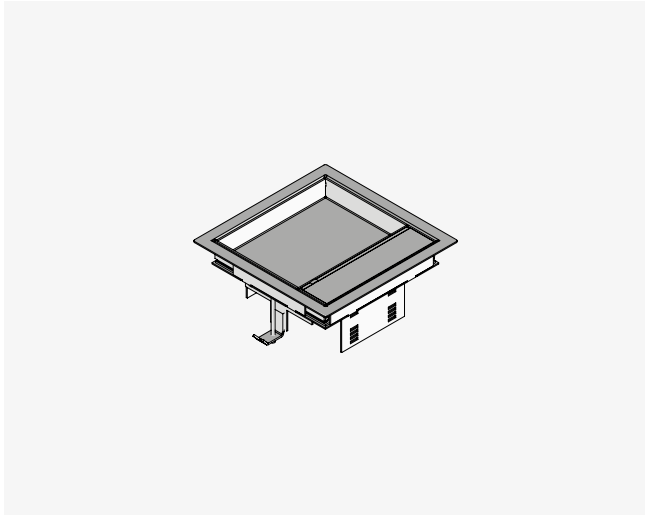


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDD 15-V E	72	90	283	283	261 x 261	12	2	IP 30	2.10
UEBDD 25-V E	82	100	283	283	261 x 261	22	2	IP 30	2.30

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

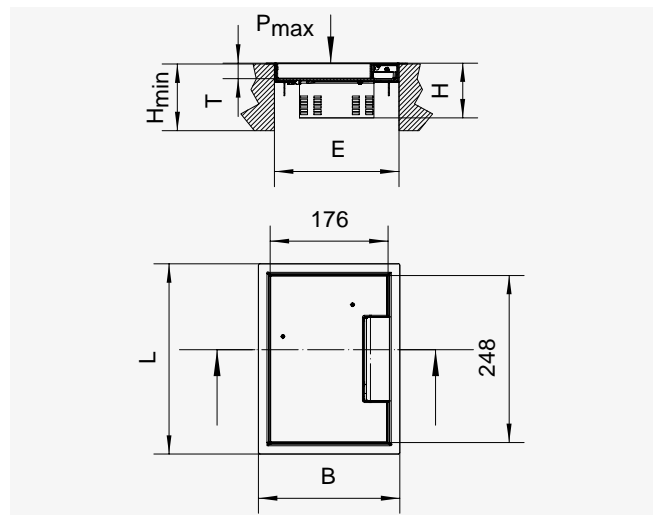
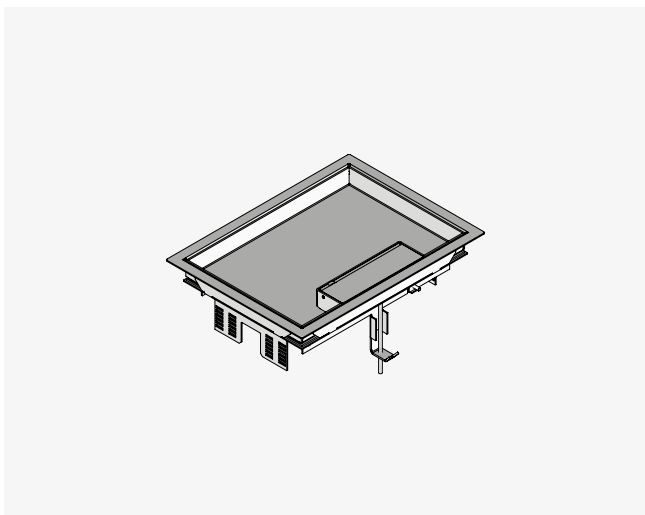
UEKDD1-2 V E Stainless steel hinged cover cartridge, single, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD1-2 15-V E	71	80	186	186	165 x 165	12	1.5	IP 30	IP 20	1.26
UEKDD1-2 25-V E	81	90	186	186	165 x 165	22	1.5	IP 30	IP 20	1.41

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEKDD2 V E Stainless steel hinged cover cartridge, double, angular

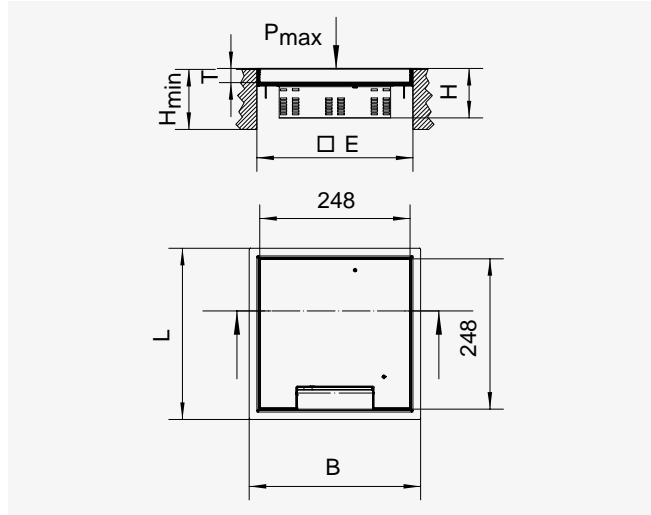
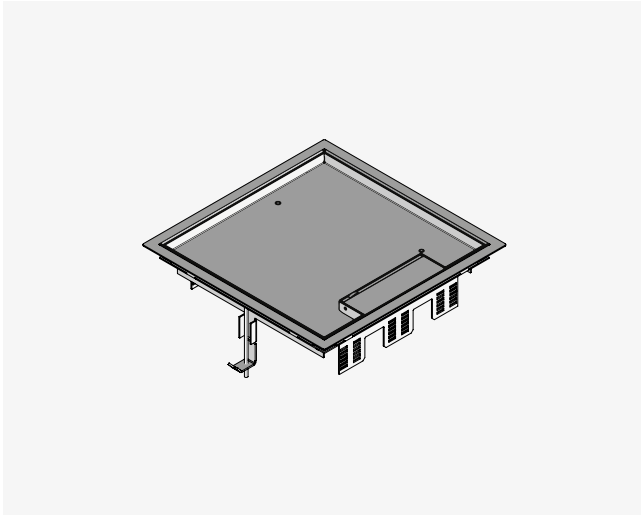


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD2 15-V E	72	90	210	283	261 x 186	12	1.5	IP 30	IP 20	1.71
UEKDD2 25-V E	82	100	210	283	261 x 186	22	1.5	IP 30	IP 20	2.50

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

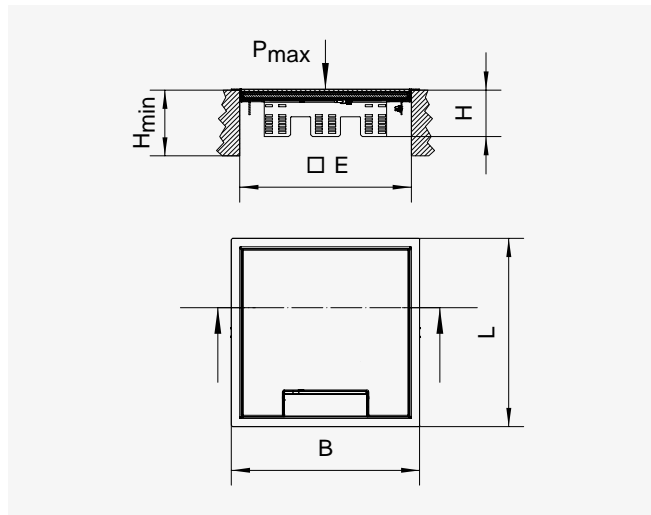
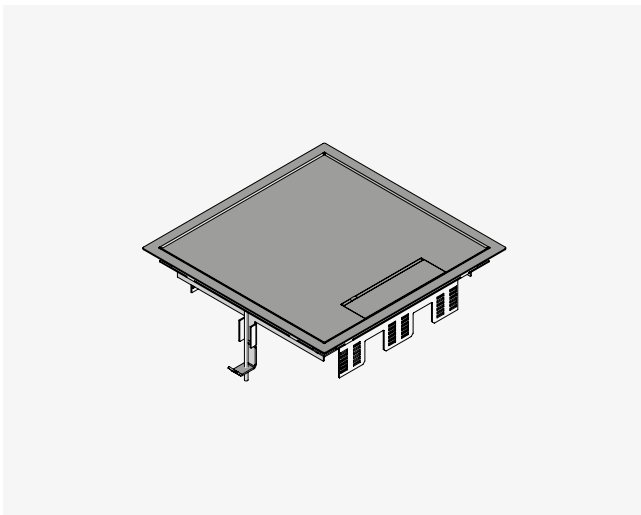
UEKDD VE Stainless steel hinged cover cartridge, triple, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD 15-V E	72	90	283	283	261 x 261	12	2	IP 30	IP 20	1.60
UEKDD 25-V E	82	100	283	283	261 x 261	22	2	IP 30	IP 20	2.80

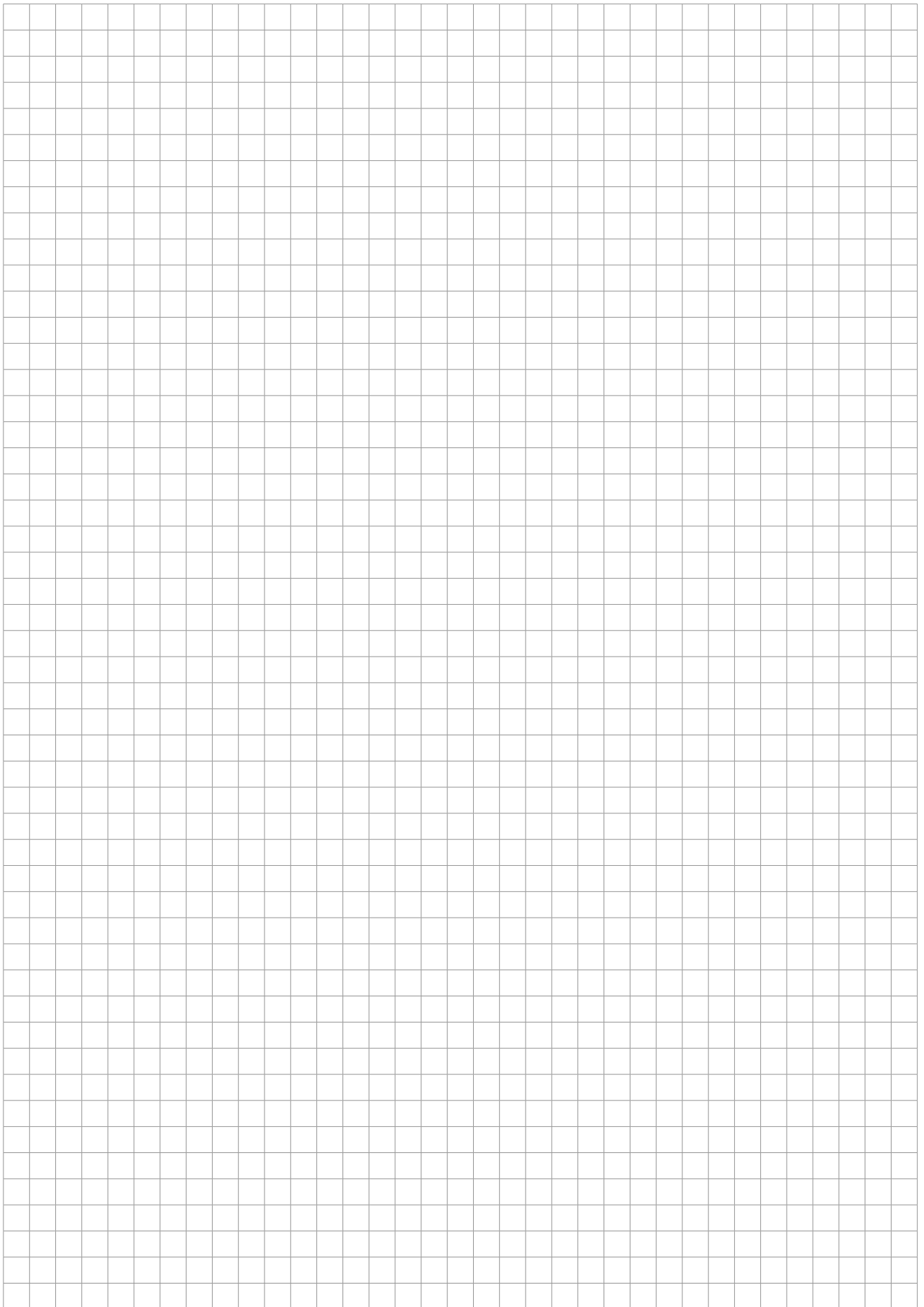
H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

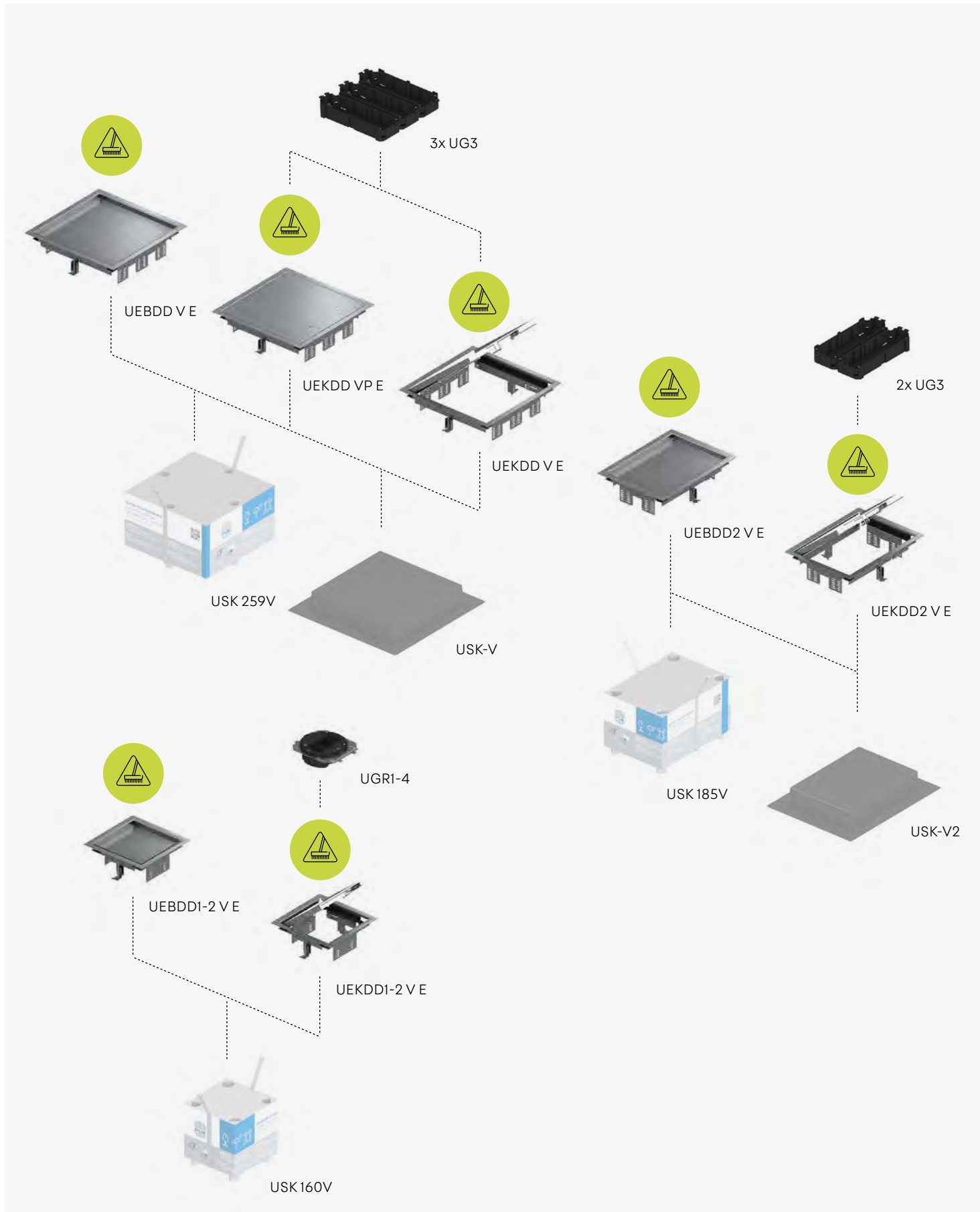
UEKDD VP E Stainless steel hinged cover cartridge, triple, angular, flat



Type	H mm	H _{min} mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEKDD 15-VP E	72	90	283	283	261 x 261	2	IP 30	IP 20	5.00

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

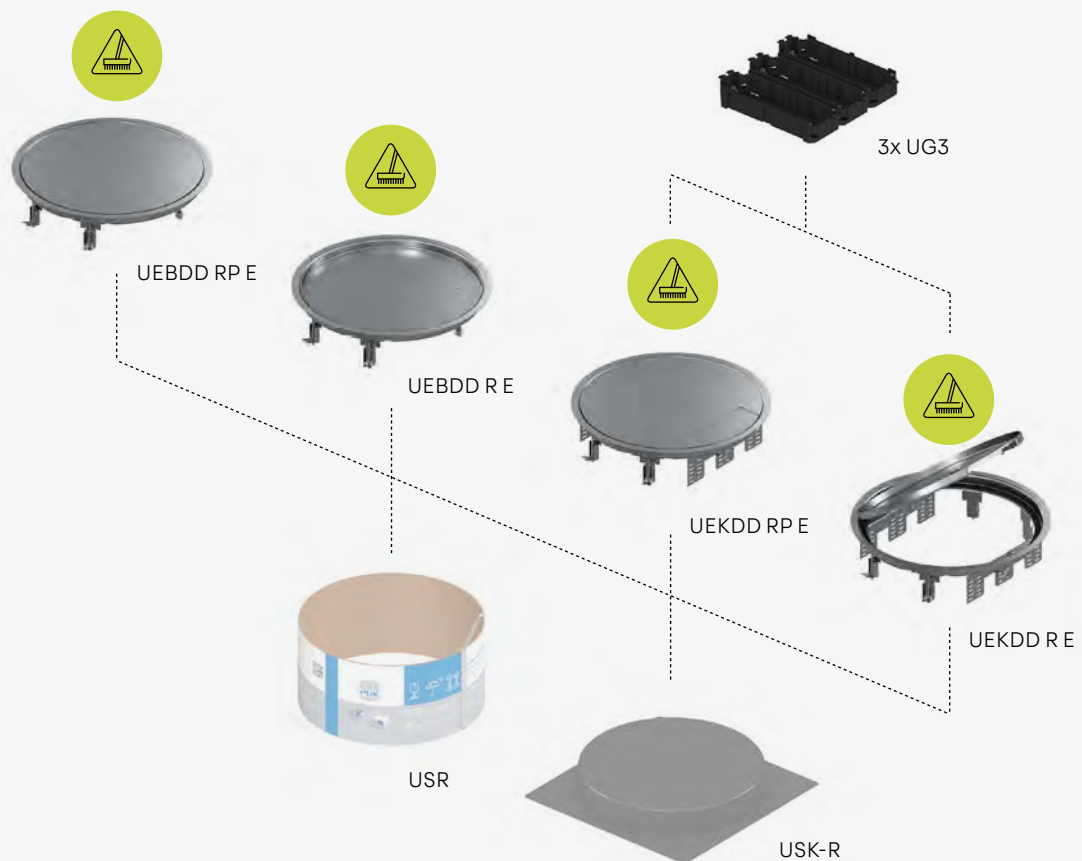




System overview

UEBDD / UEKDD

Stainless steel cassette units visually enhance interiors while providing robust access to power and data sources. The surrounding frame protects the floor covering edges for a sophisticated and attractive look. Every unit also features a patented opening mechanism for fast and ergonomic opening.



UEBD / UEKD

Stainless steel units



Benefits

- VDE-compliant
- Subsonic noise sleeve socket for sound insulation
- Compensates for construction deviations
- Easy to use / assemble

Areas of application

Medical practices, car dealerships or law firms – these stainless steel units are suitable for almost any application. For instance, the range includes different versions for dry-cleaned, damp-cleaned and wet-cleaned floor coverings. The floor boxes can also be used in areas with normal office traffic or heavy traffic loads depending on the type.



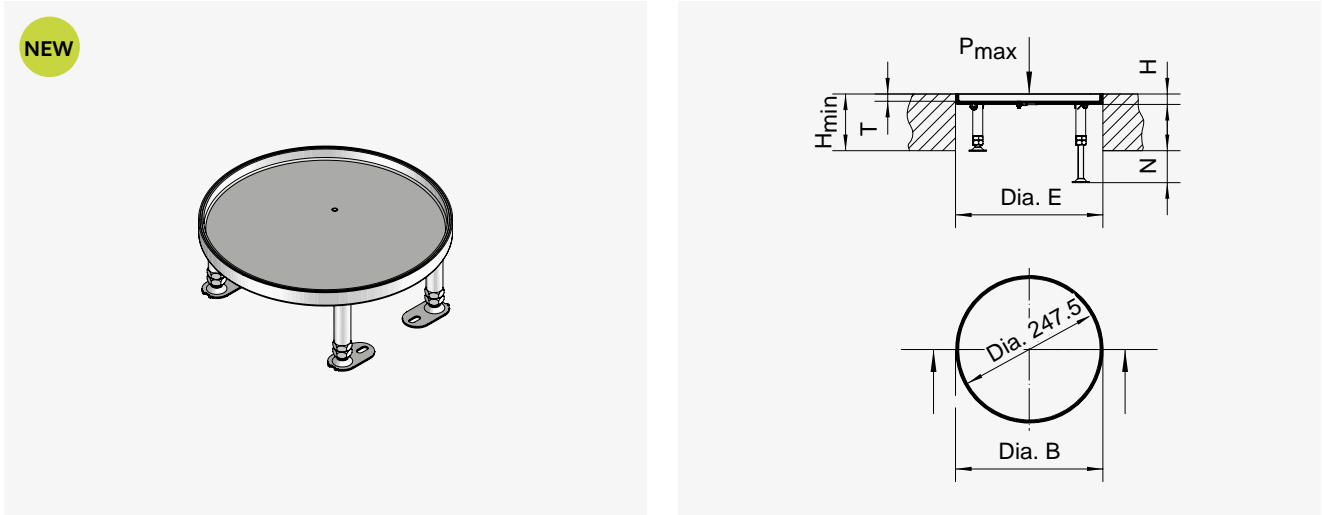
In industrial sectors



Technical building services

Technical data

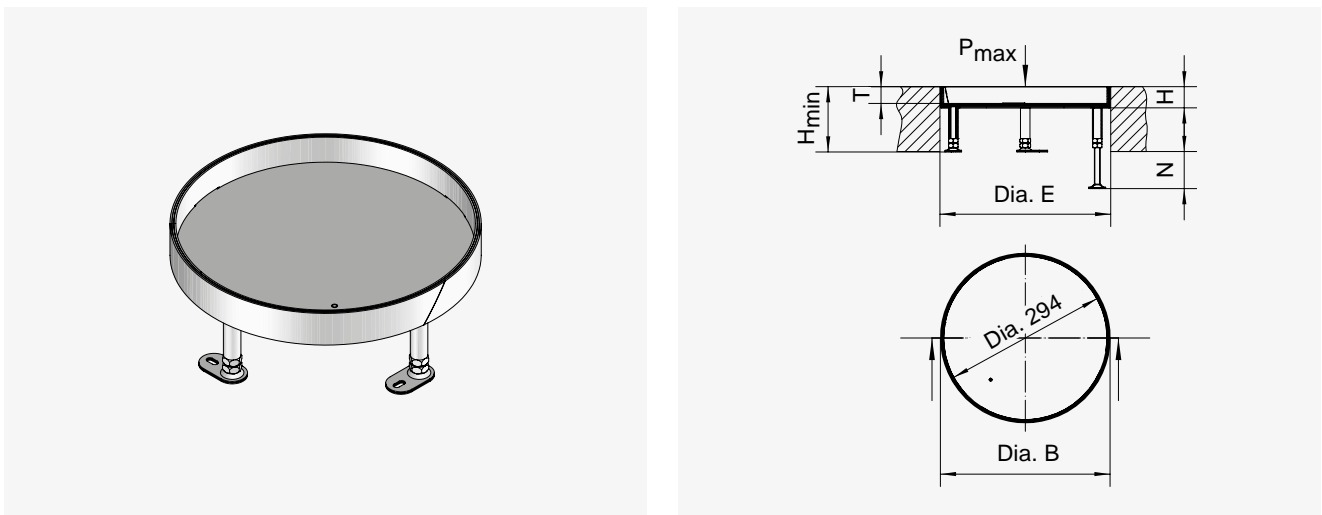
UEBD2 R E Stainless steel dummy cover unit, double, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD2 15-R E	18	100	+ 55	258	260	12	2	IP 54	1.82
UEBD2 25-R E	28	110	+ 55	258	260	22	2	IP 54	2.04

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEBD R E Stainless steel dummy cover unit, triple, round

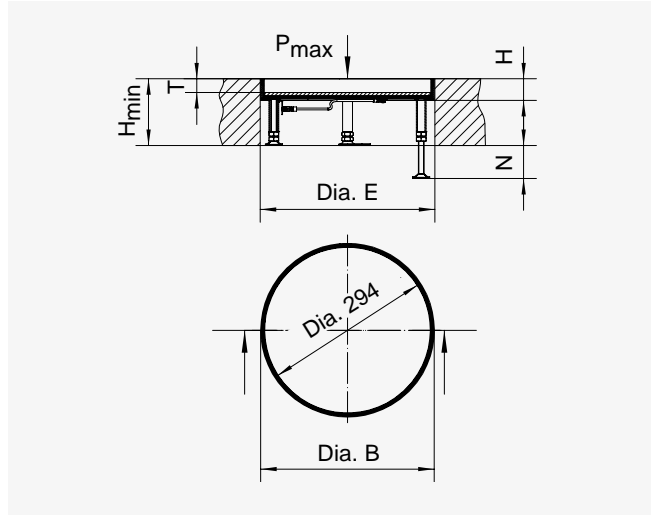
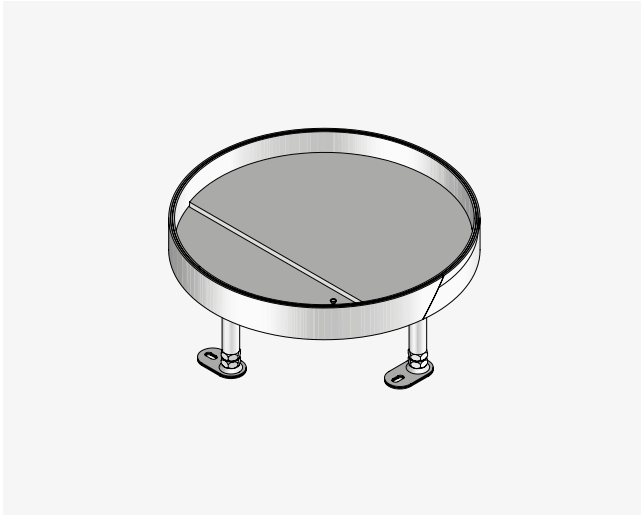


Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD 15-R E	21	100	+ 55	305	307	12	2	IP 54	3.14
UEBD 35-R E	38	117	+ 55	305	307	30	2	IP 54	3.67

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

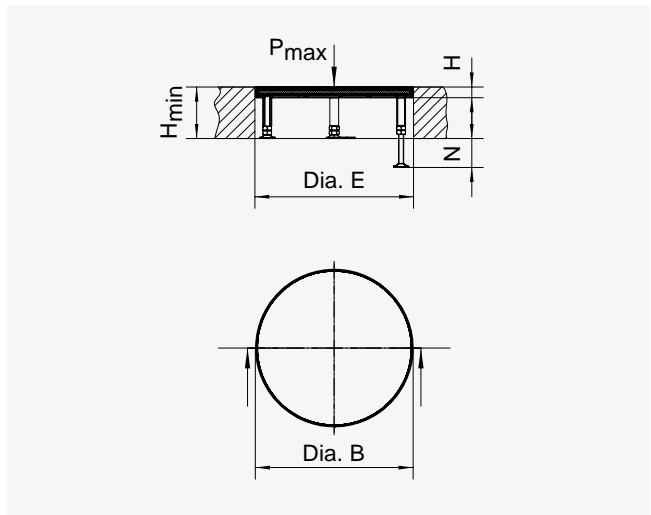
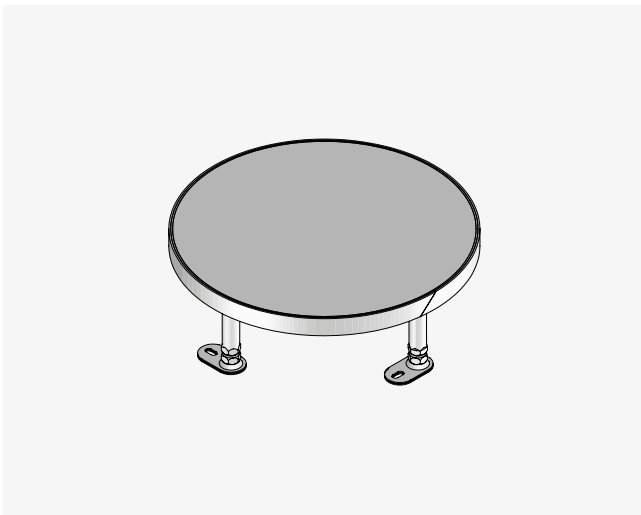
UEBDS R E Stainless steel, heavy-duty dummy cover unit, triple, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDS 35-R6 E	38	117	+ 55	305	307	24	20	IP 54	6.93

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEBD R P E Stainless steel dummy cover unit, triple, round, flat

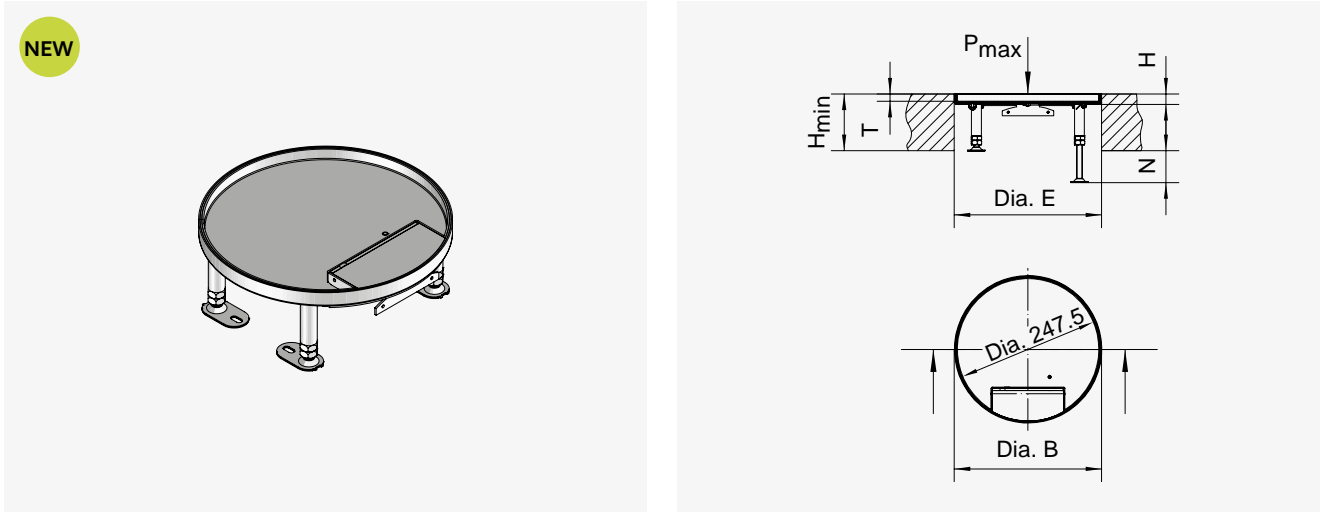


Type	H mm	H _{min} mm	N mm	B mm	E mm	P _{max} kN	IP _n	G kg
UEBD 15-RP E	21	100	+ 55	305	307	4	IP 54	3.20

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

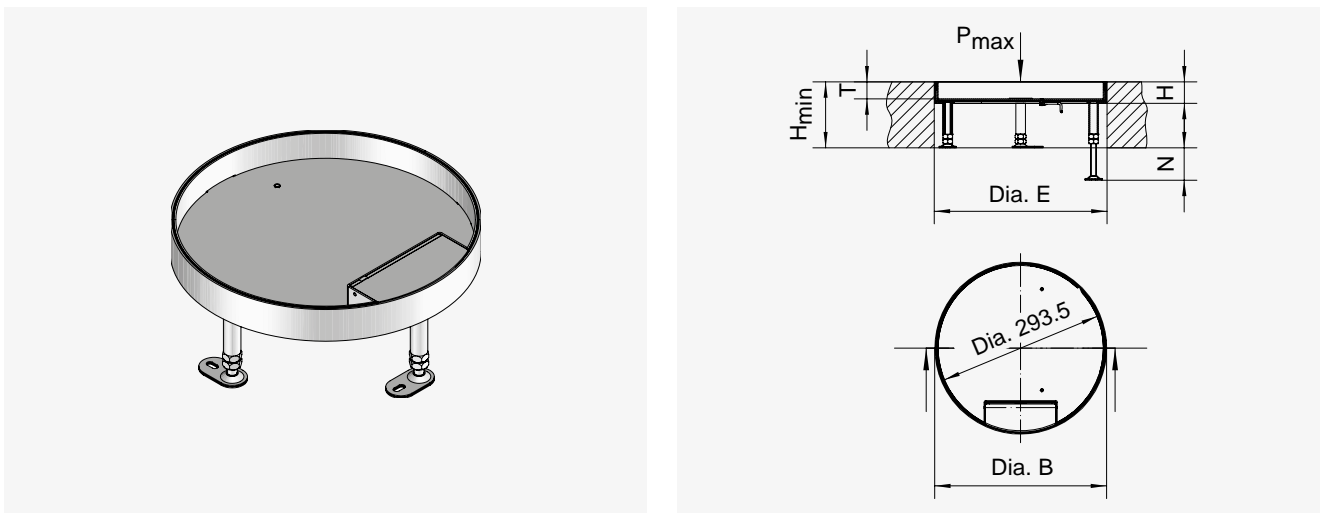
UEKD2 R E Stainless steel hinged cover unit, double, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKD2 15-R E	18	100	+ 55	258	260	12	2	IP 30	IP 20	2.05
UEKD2 25-R E	28	110	+ 55	258	260	22	2	IP 30	IP 20	2.31

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEKD R E Stainless steel hinged cover unit, triple, round

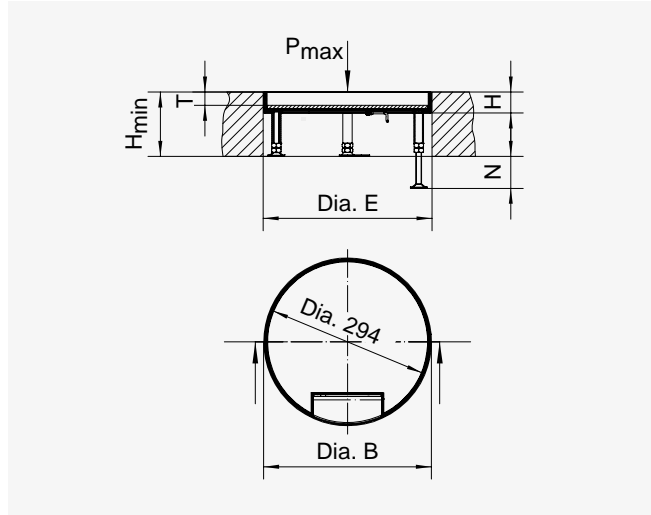
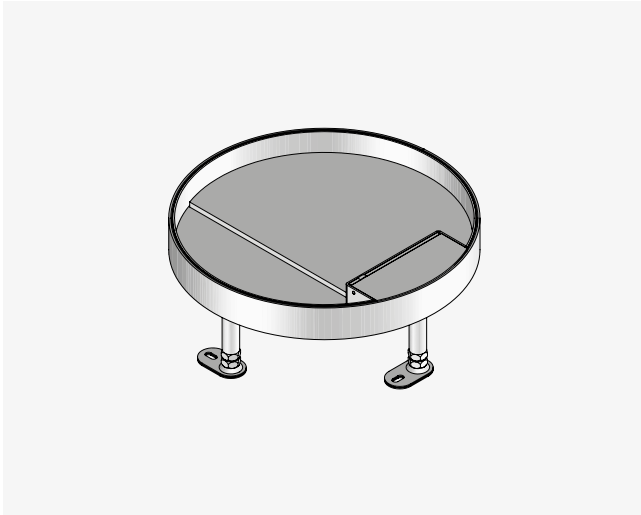


Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKD 15-R E	21	100	+ 55	305	307	12	2	IP 30	IP 20	3.20
UEKD 35-R E	38	117	+ 55	305	307	30	2	IP 30	IP 20	3.46

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

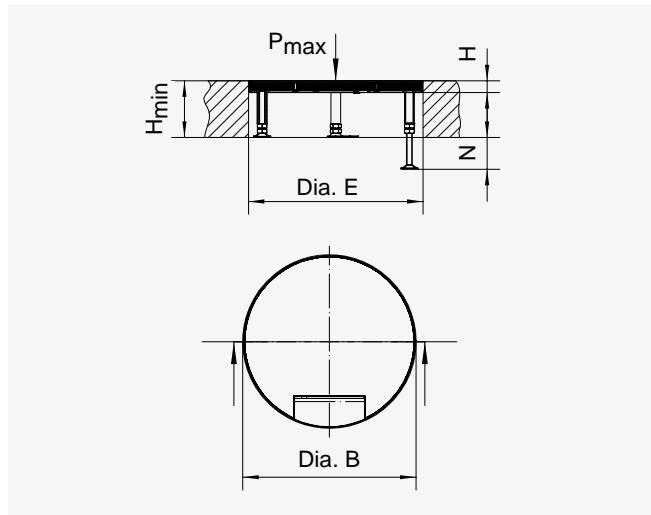
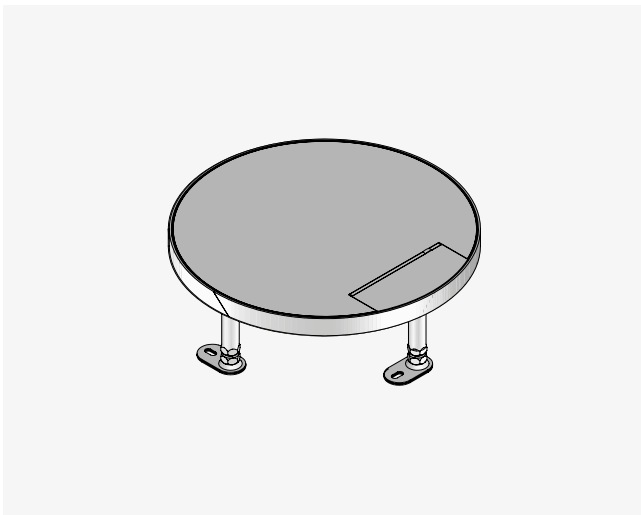
UEKDS R E Stainless steel hinged cover unit with steel inlay, triple, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDS 35-R6 E	38	117	+ 55	305	307	24	10	IP 30	IP 20	6.30

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEKD R P E Stainless steel hinged cover unit, triple, round, flat

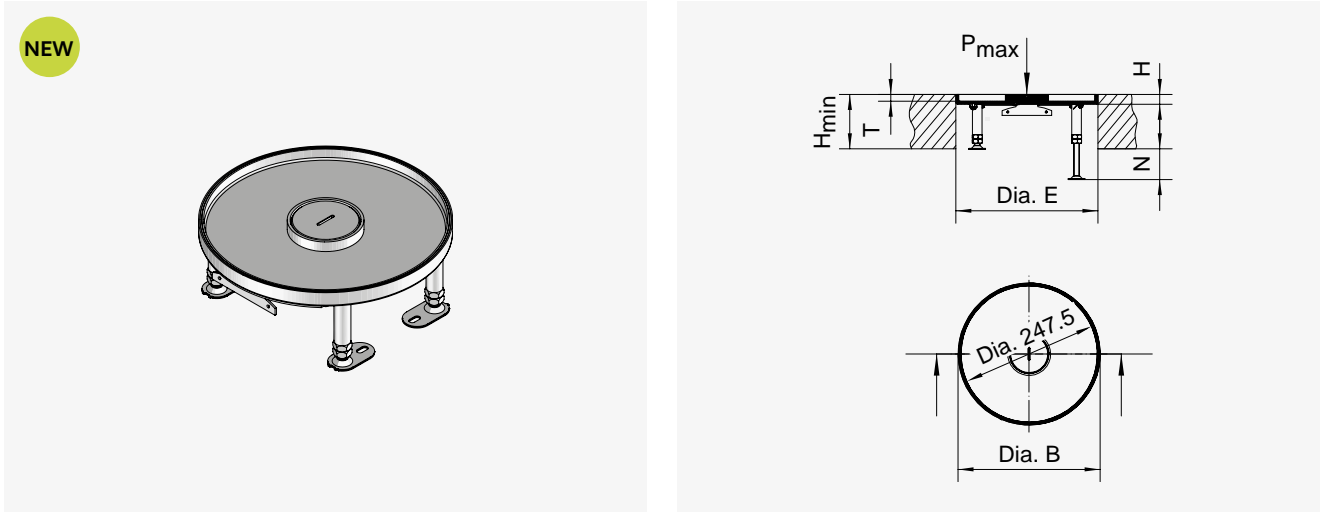


Type	H mm	H _{min} mm	N mm	B mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEKD 15-RPE	21	100	+ 55	305	307	4	IP 30	IP 20	3.25

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

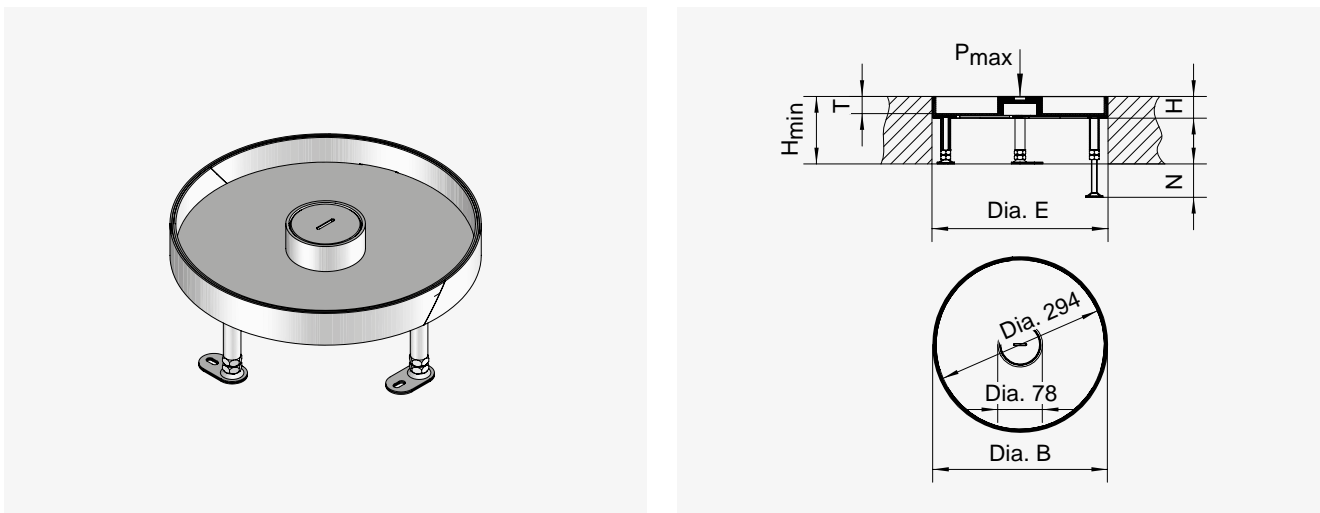
UEBDM2 R WD Stainless steel tube cover unit, double, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEBDM2 15-R-WD	18	100	+ 55	258	260	12	2	IP 54	IP 22	2.21
UEBDM2 25-R-WD	28	110	+ 55	258	260	22	2	IP 54	IP 22	2.24

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEBDM R WD Stainless steel tube cover unit, triple, round

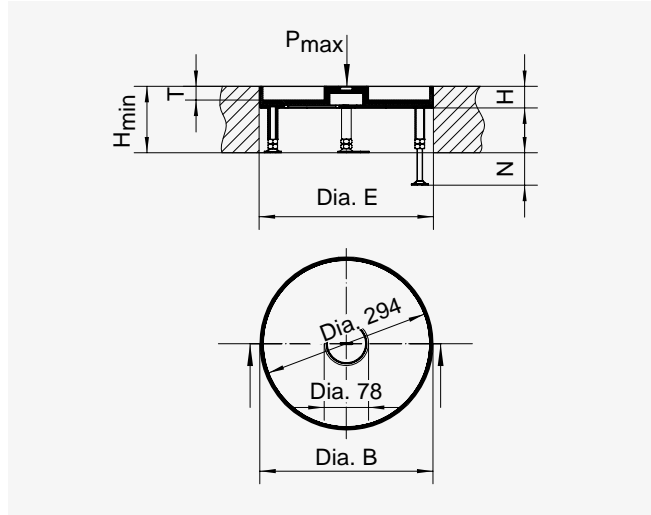
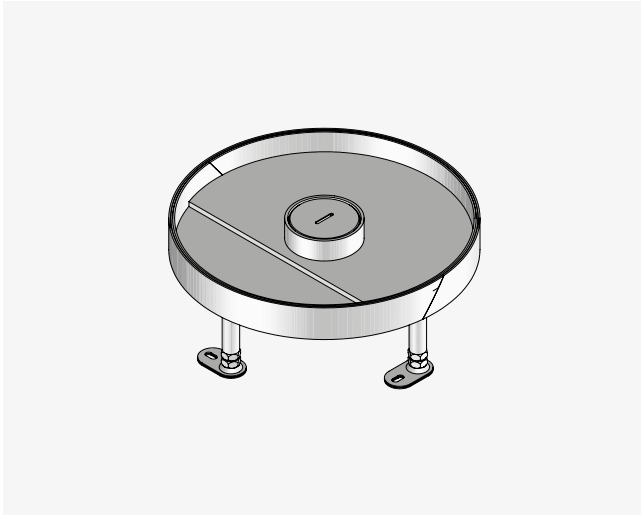


Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEBDM 15-R-WD	21	100	+ 55	305	307	12	2	IP 54	IP 22	3.20
UEBDM 35-R-WD	38	117	+ 55	305	307	30	2	IP 54	IP 22	3.82

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

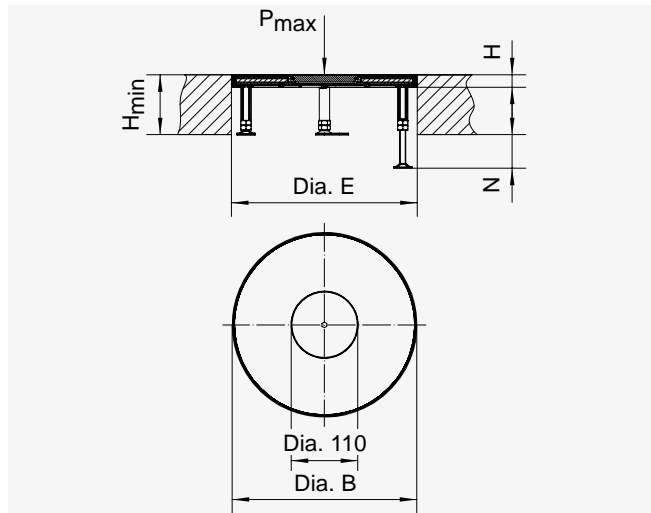
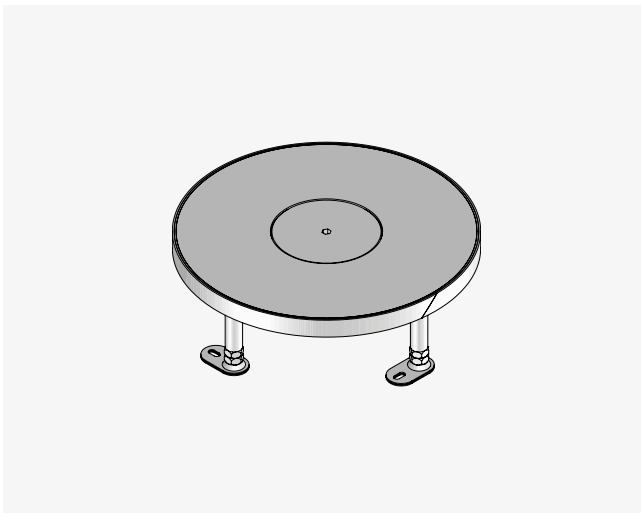
UEBDSM R WD Stainless steel, heavy duty tube cover unit, triple, round



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEBDSM 35-R6-WD	38	117	+ 55	305	307	24	20	IP 54	IP 22	6.79

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

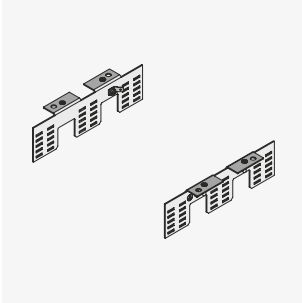
UEBDM RP WD Stainless steel tube cover unit, triple, round, flat



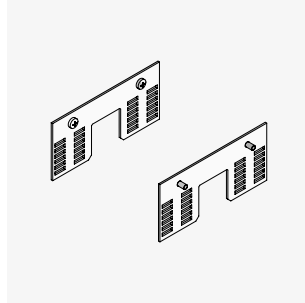
Type	H mm	H _{min} mm	N mm	B mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEBDM 15-RP-WD	21	100	+ 55	305	307	4	IP 54	IP 22	3.30

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

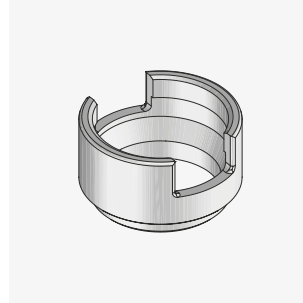
Installation components



UGEAR
Snap-in ladder set for
stainless steel unit, triple,
round



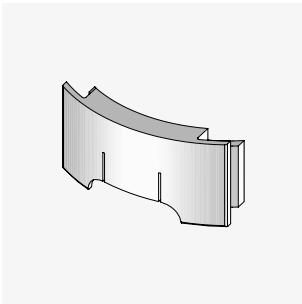
UGEAR2
Snap-in ladder set for
stainless steel unit, double,
round



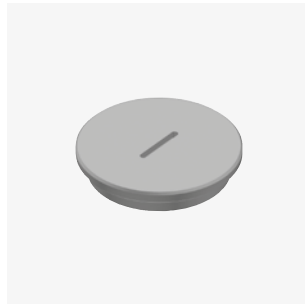
UET WD
Tube



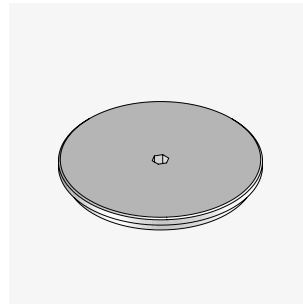
UET112 WD
Tube



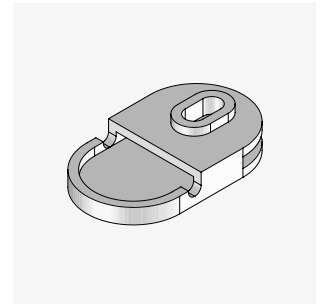
UGM
Rubber bushing



UETD WD
Tube cover



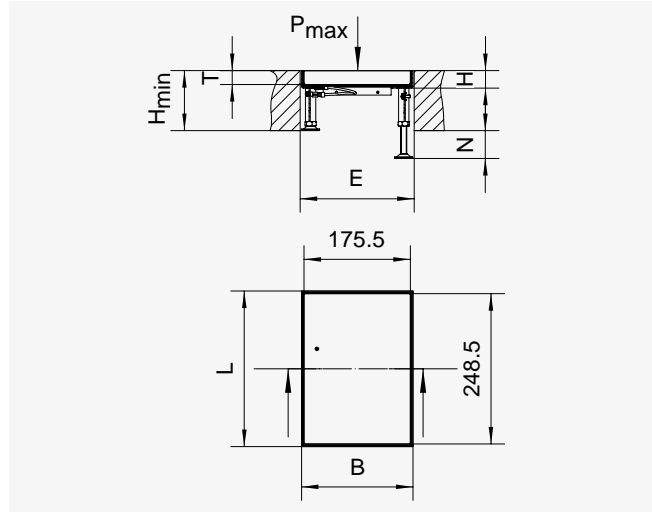
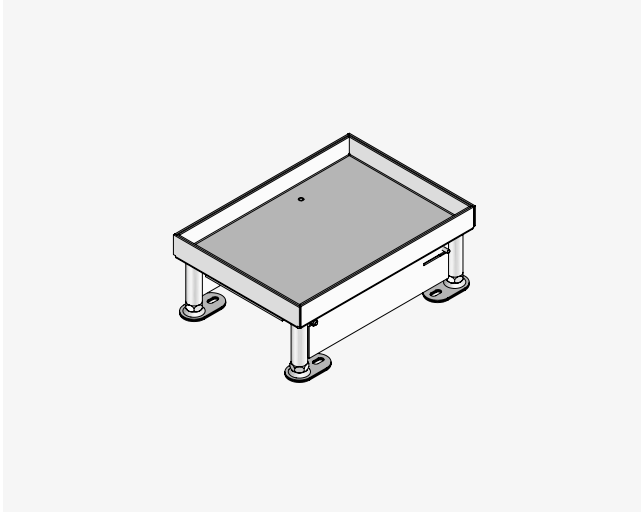
UETD112 WD
Tube cover



UGM SLF
Subsonic noise sleeve socket
- levelling support

Technical data

UEBD2 V E Stainless steel dummy cover unit, double, angular

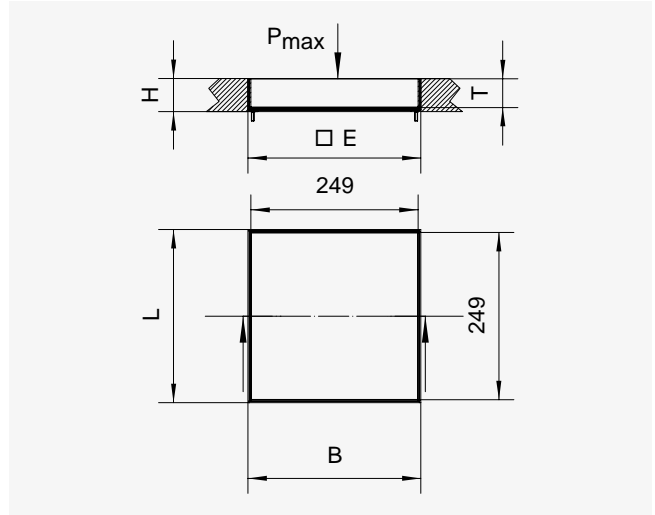
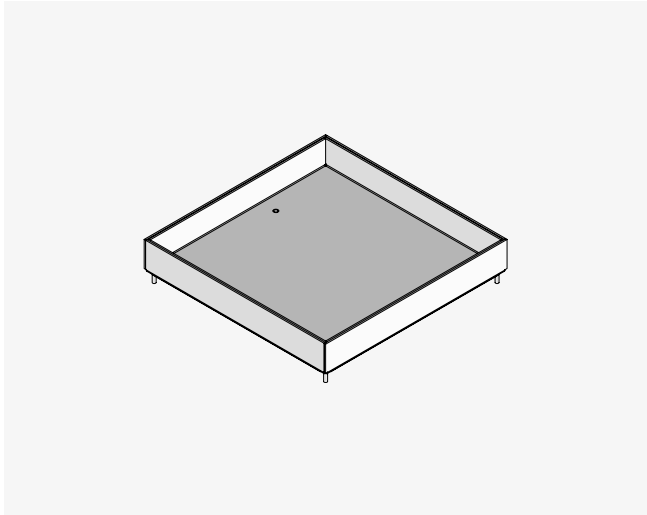


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD2 15-V E	19	90	+ 45	258	184	261 x 186	12	1.5	IP 30	2.20
UEBD2 25-V E	29	100	+ 45	258	184	261 x 186	22	1.5	IP 30	2.50

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

UEBD V E Stainless steel dummy cover unit, triple, angular

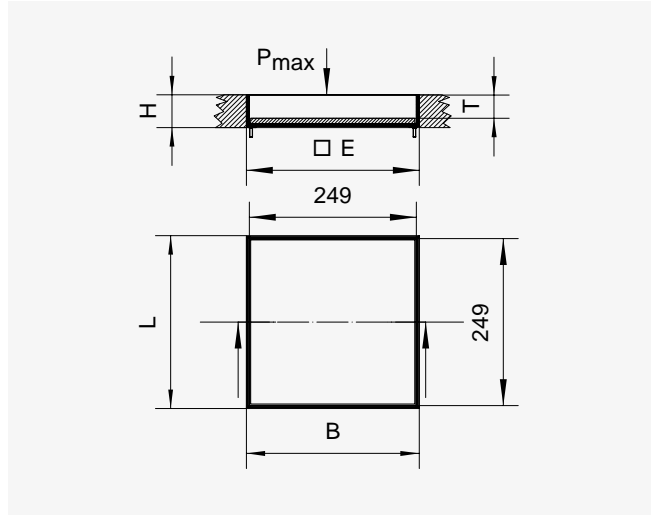
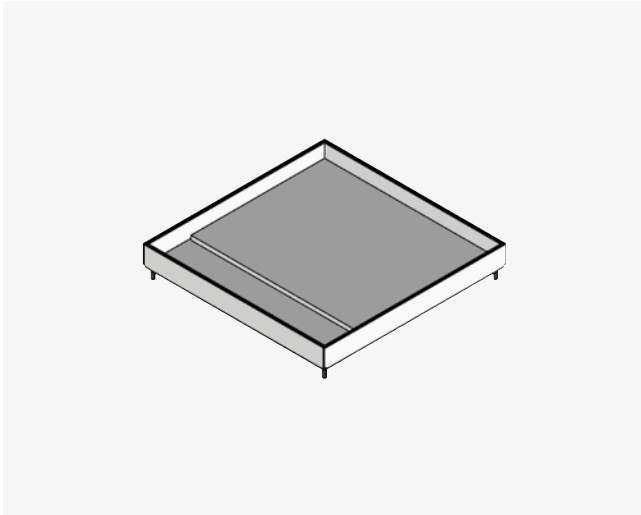


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	G kg
UEBD 15-V E	19	85	258	258	261 x 261	12	2	Stainless steel	IP 54	1.75
UEBD 25-V E	29	95	258	258	261 x 261	22	2	Stainless steel	IP 54	1.98
UEBD 35-V E	39	105	258	258	261 x 261	32	2	Stainless steel	IP 54	2.25
UEBD 45-V E	49	115	258	258	261 x 261	42	2	Stainless steel	IP 54	2.51
UEBD 25-V MS	29	95	258	258	261 x 261	16	2	Brass	IP 54	4.97
UEBD 35-V MS	39	105	258	258	261 x 261	26	2	Brass	IP 54	5.31

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

UEBDS V E Stainless steel, heavy duty dummy cover unit, triple, angular

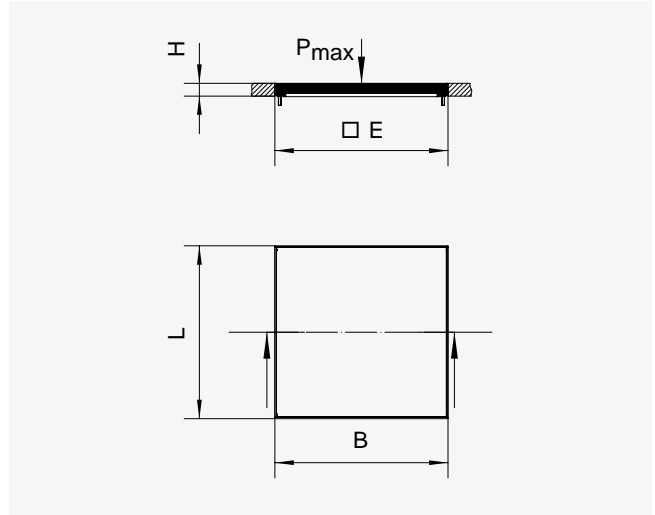
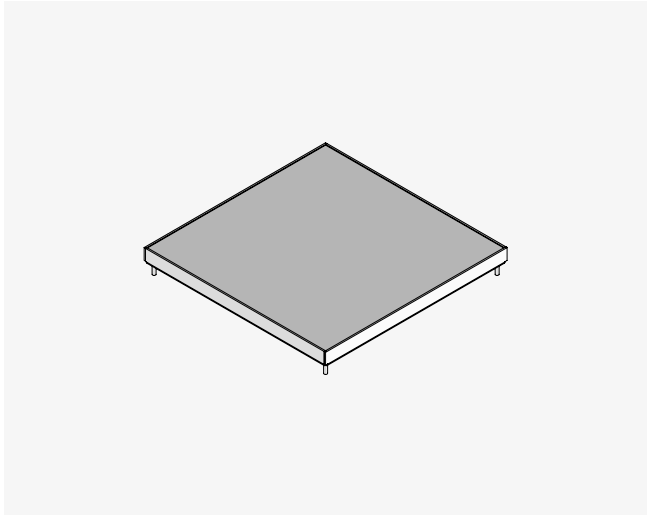


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBDS 25-V6 E	29	95	258	258	261 x 261	16	10	IP 54	4.80
UEBDS 35-V6 E	39	105	258	258	261 x 261	26	10	IP 54	5.10
UEBDS 45-V6 E	49	115	258	258	261 x 261	36	10	IP 54	5.30
UEBDS 35-V8 E	39	105	258	258	261 x 261	24	20	IP 54	6.00
UEBDS 45-V8 E	49	115	258	258	261 x 261	34	20	IP 54	6.20

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

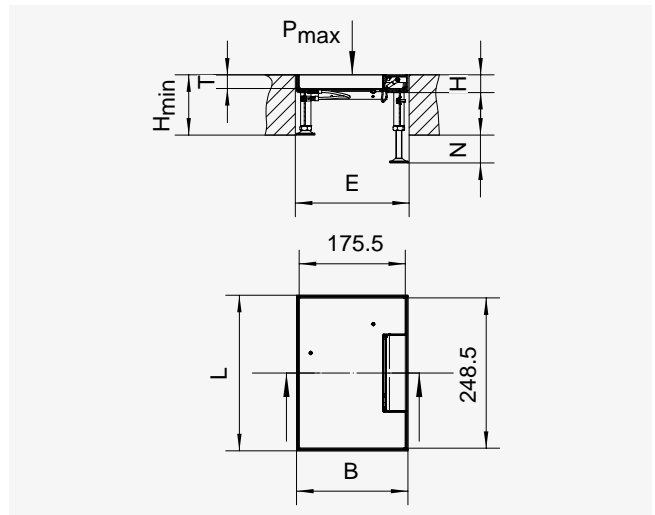
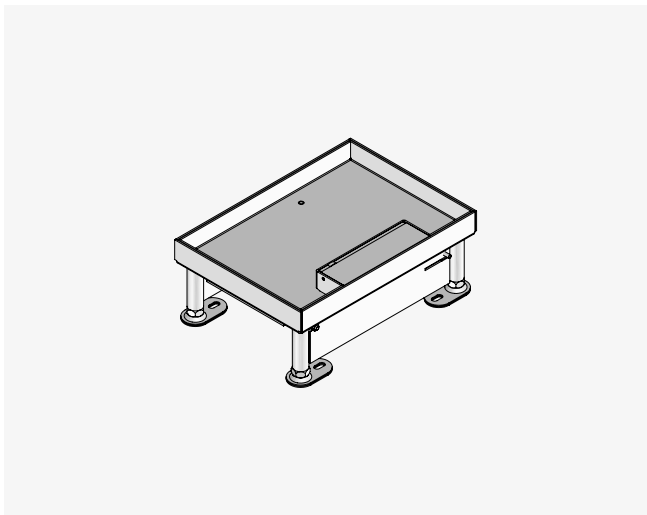
UEBD VPE Stainless steel dummy cover unit, triple, angular, flat



Type	H mm	H _{min} mm	B mm	L mm	E mm	P _{max} kN	IP _n	G kg
UEBD 15-VPE	19	85	258	258	261 x 261	4	IP 54	3.42

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEKD2 VE Stainless steel hinged cover unit, double, angular

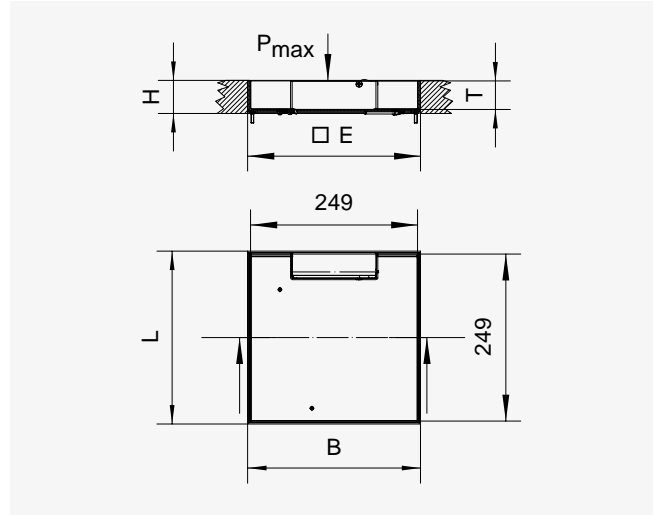
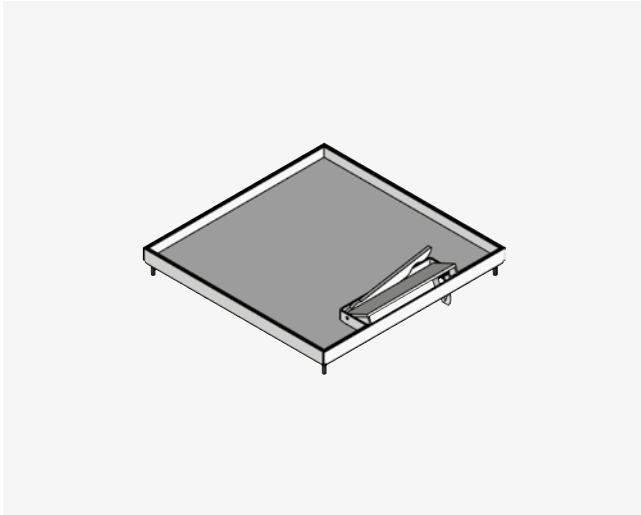


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKD2 15-VE	19	90	+45	258	184	261 x 186	12	1.5	IP 30	IP 20	2.40
UEKD2 25-VE	29	100	+45	258	184	261 x 186	22	1.5	IP 30	IP 20	2.60

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

UEKD VE Stainless steel hinged cover unit, triple, angular

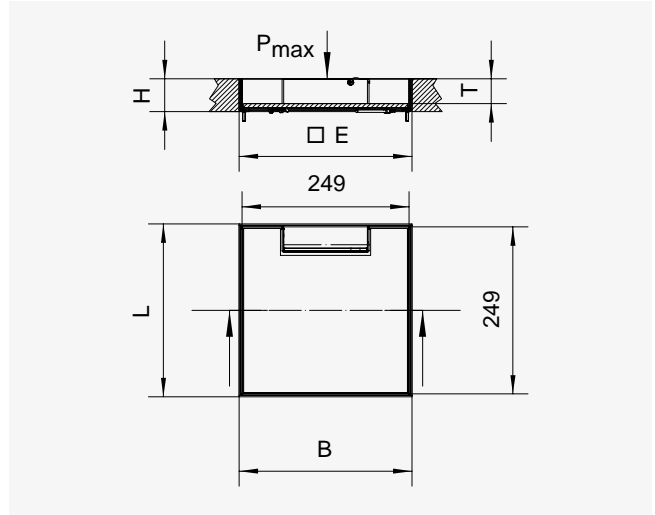
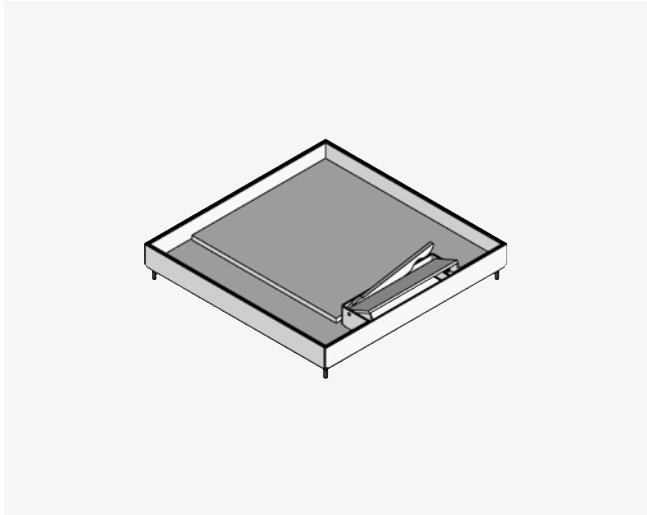


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	IP _g	G kg
UEKD 15-V E	19	85	258	258	261 x 261	12	2	Stainless steel	IP 30	IP 20	1.80
UEKD 25-V E	29	95	258	258	261 x 261	22	2	Stainless steel	IP 30	IP 20	2.00
UEKD 35-V E	39	105	258	258	261 x 261	32	2	Stainless steel	IP 30	IP 20	2.20
UEKD 45-V E	49	115	258	258	261 x 261	42	2	Stainless steel	IP 30	IP 20	2.40
UEKD 25-V MS	29	95	258	258	261 x 261	16	2	Brass	IP 30	IP 20	2.00
UEKD 35-V MS	39	105	258	258	261 x 261	26	2	Brass	IP 30	IP 20	2.40

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

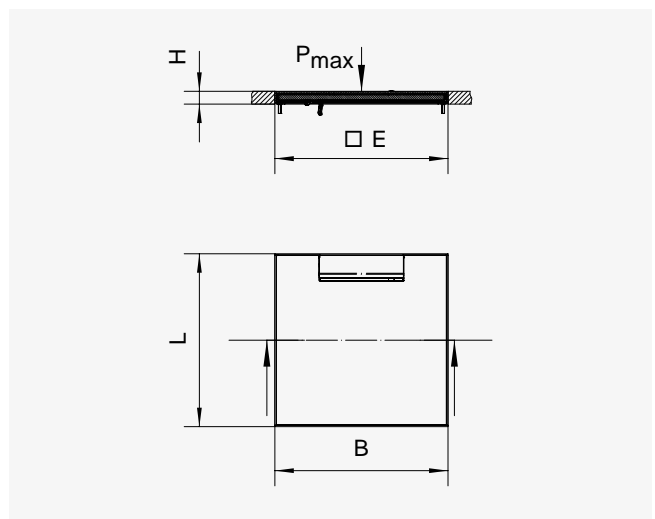
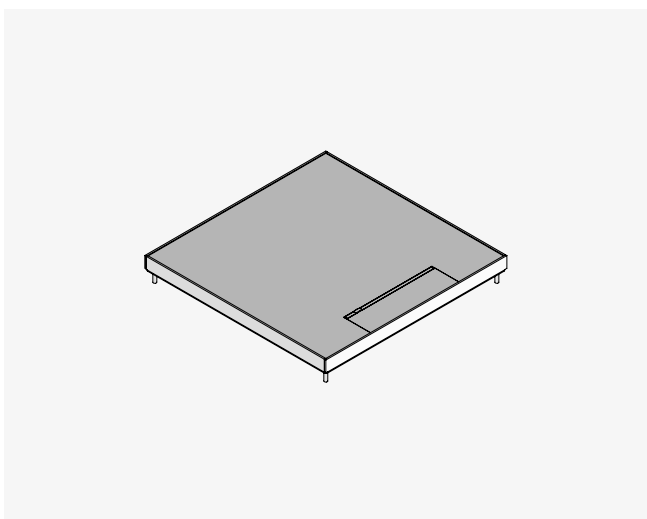
UEKDS V E Stainless steel hinged cover unit with steel inlay, triple, angular



Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKDS 25-V6 E	29	95	258	258	261 x 261	16	10	IP 30	IP 20	4.80
UEKDS 35-V6 E	39	105	258	258	261 x 261	26	10	IP 30	IP 20	5.00
UEKDS 45-V6 E	49	115	258	258	261 x 261	36	10	IP 30	IP 20	5.20

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UEKD VP E Stainless steel hinged cover unit, triple, angular, flat

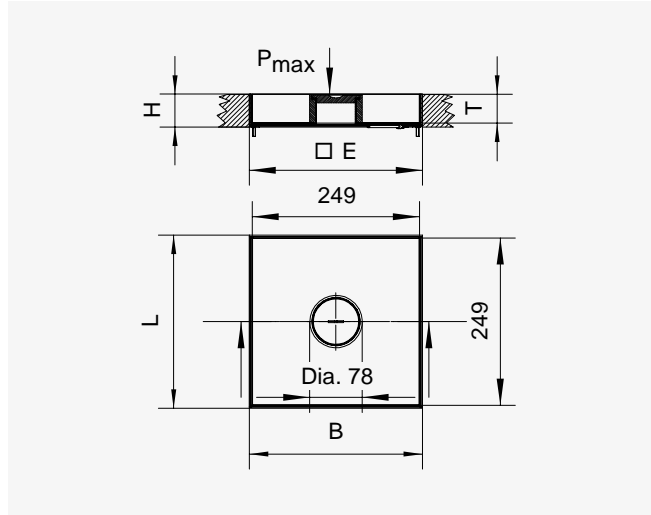
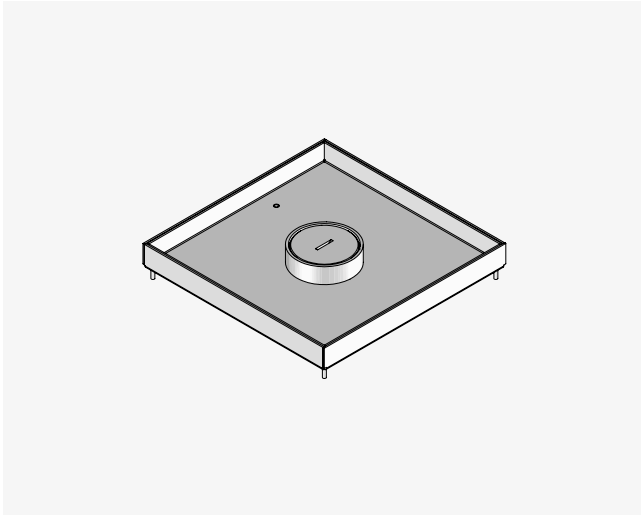


Type	H mm	H _{min} mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEKD 15-VP E	19	85	258	258	261 x 261	4	IP 30	IP 20	3.38

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

UEBDM V WD Stainless steel tube cover unit, triple, angular

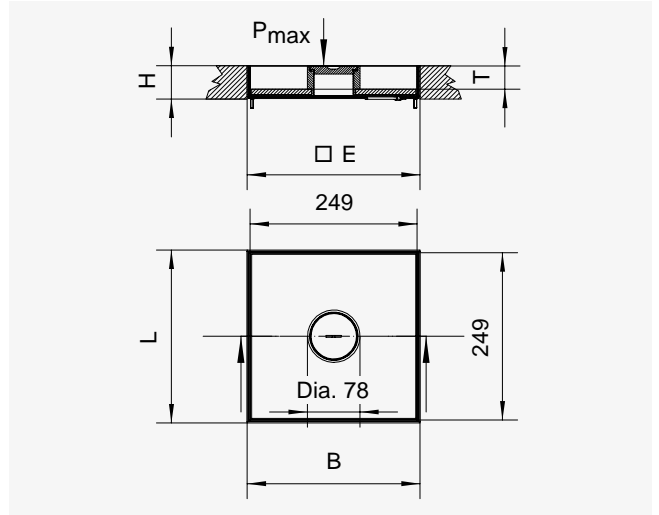
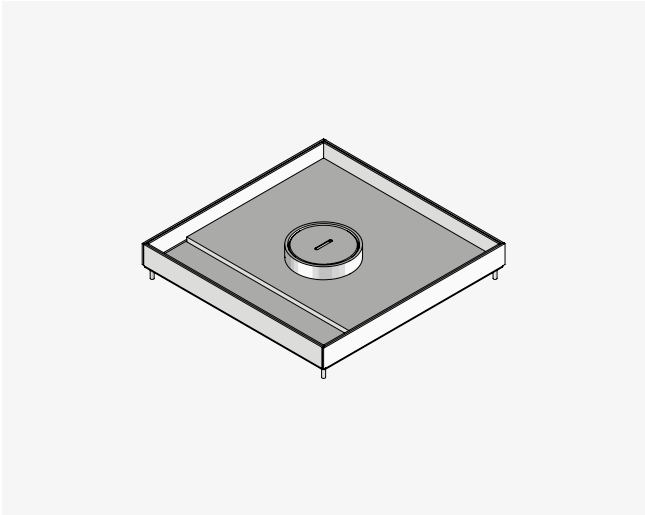


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	IP _g	G kg
UEBDM 15-V-WD	19	85	258	258	261 x 261	12	2	Stainless steel	IP 54	IP 22	1.90
UEBDM 25-V-WD	29	95	258	258	261 x 261	22	2	Stainless steel	IP 54	IP 22	2.10
UEBDM 35-V-WD	39	105	258	258	261 x 261	32	2	Stainless steel	IP 54	IP 22	2.30
UEBDM 45-V-WD	49	115	258	258	261 x 261	42	2	Stainless steel	IP 54	IP 22	2.60
UEBDM 25-V-WD MS	29	95	258	258	261 x 261	16	2	Brass	IP 54	IP 22	2.10
UEBDM 35-V-WD MS	39	105	258	258	261 x 261	26	2	Brass	IP 54	IP 22	2.30

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

UEBDSM V WD Stainless steel, heavy duty tube cover unit, triple, round

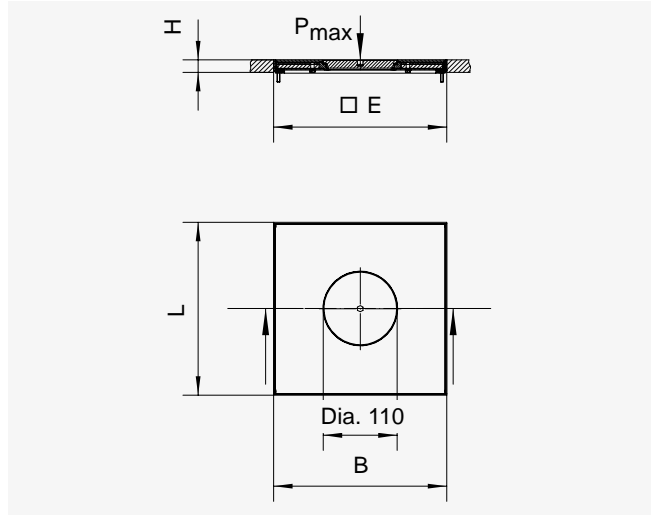
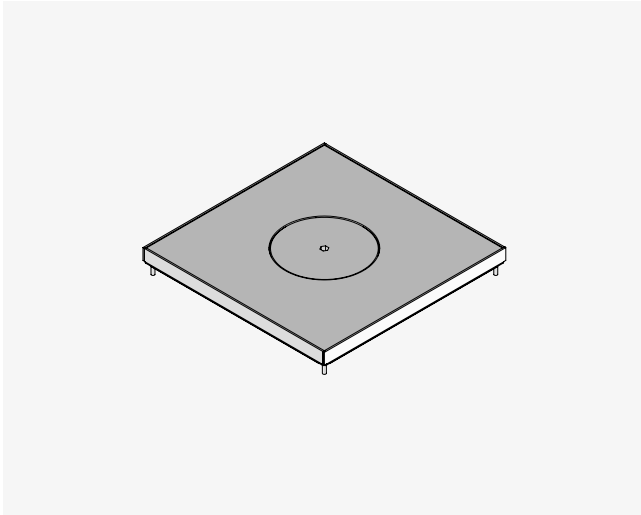


Type	H mm	H _{min} mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEBDSM 25-V6-WD	29	95	258	258	261 x 261	16	10	IP 54	IP 22	4.70
UEBDSM 35-V6-WD	39	105	258	258	261 x 261	26	10	IP 54	IP 22	5.08
UEBDSM 45-V6-WD	49	115	258	258	261 x 261	34	10	IP 54	IP 22	5.40
UEBDSM 35-V8-WD	39	105	258	258	261 x 261	24	20	IP 54	IP 22	6.10
UEBDSM 45-V8-WD	49	115	258	258	261 x 261	34	20	IP 54	IP 22	6.40

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

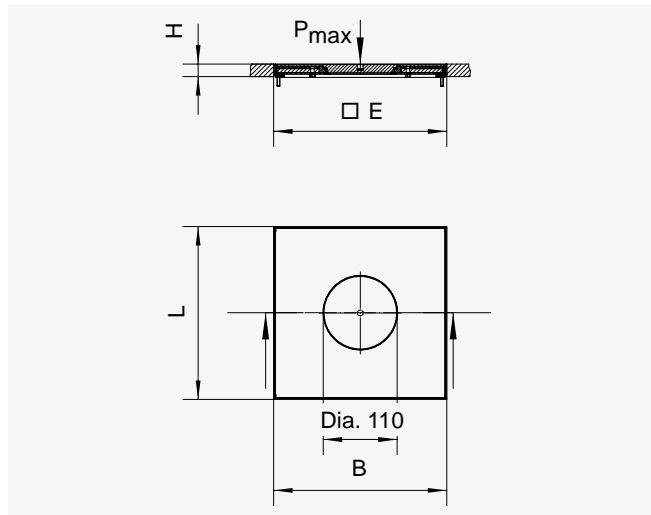
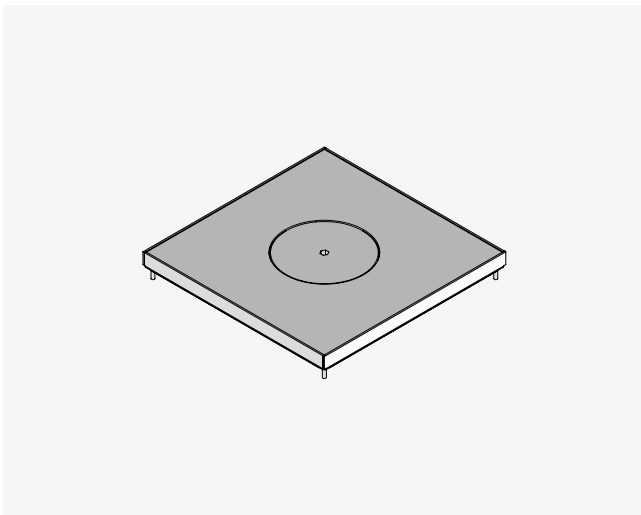
UEBDM VP WD Stainless steel tube cover unit, triple, angular, flat



Type	H mm	H _{min} mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEBDM 15-VP-WD	19	85	258	258	261 x 261	4	IP 54	IP 22	3.39

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

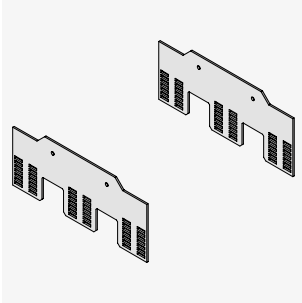
UEBDSM VP WD Stainless steel, heavy duty tube cover unit, triple, angular, flat



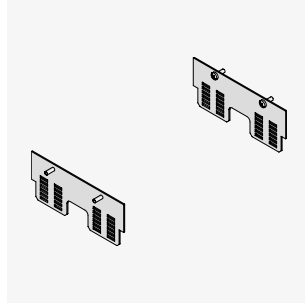
Type	H mm	H _{min} mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEBDSM 15-VP8-WD	19	85	258	258	261 x 261	20	IP 54	IP 22	6.72

H: Height | H_{min}: Minimum installation height | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

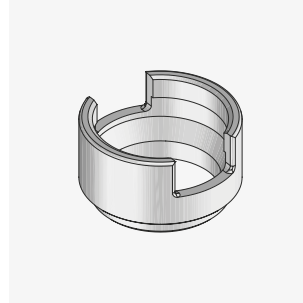
Installation components



UGEAV
Snap-in ladder set for
stainless steel unit, triple,
angular



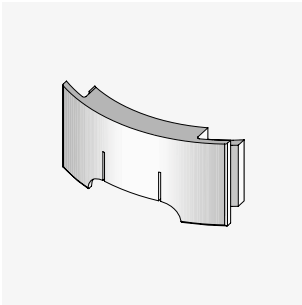
UGEAV2
Snap-in ladder set for
stainless steel unit, double,
angular



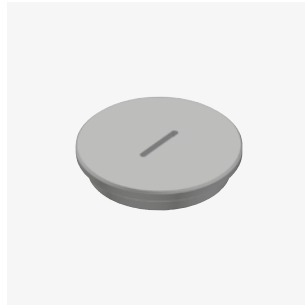
UET WD
Tube



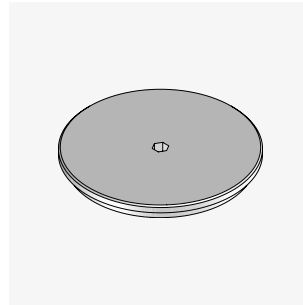
UET112 WD
Tube



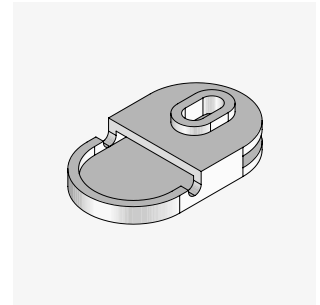
UGM
Rubber bushing



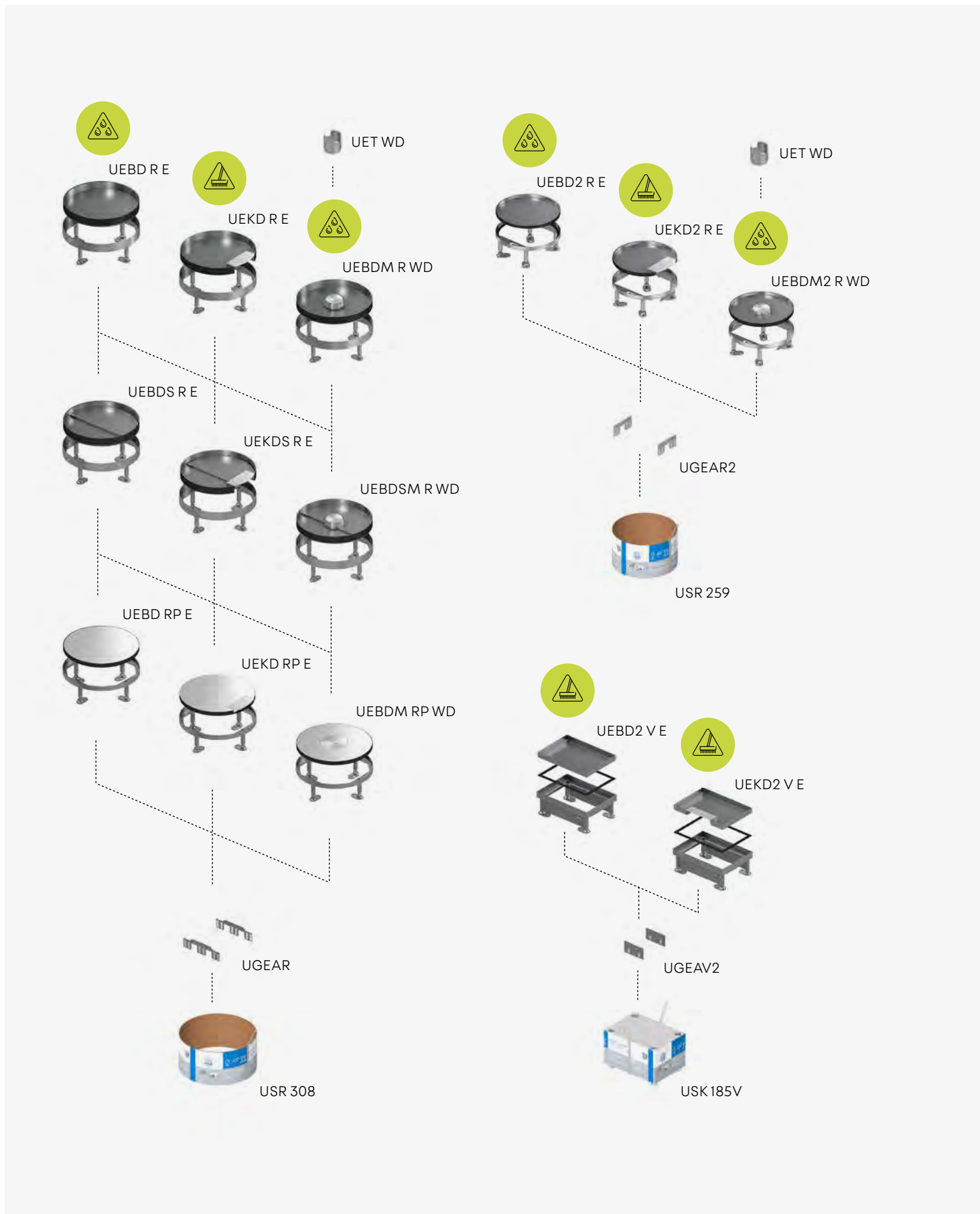
UETD WD
Tube cover



UETD112 WD
Tube cover



UGM SLF
Subsonic noise sleeve socket
- levelling support



UEBD MR

Cassette units, machine cleaning



Benefits

- High level of protection against water under pressure
- VDE-compliant

Areas of application

The use of cleaning machines is problematic for cassette units installed in floors. Dirt particles and cleaning fluids can be washed into the interior of the unit due to the high volume and pressure of the cleaning water. Our new units for machine cleaning are suitable for this application and reliably prevent the ingress of dirt and water. Both the units and the sealing components require regular inspection, cleaning and care. A double load of this kind caused by the weight of and pressurised water from the cleaning machine applied to one side of the cassette is not covered by DIN EN 50085. Load-bearing capacity and protection class are assessed separately in the test procedures. This means that our cassette units are suitable for this application although this is not covered by DIN EN 50085.



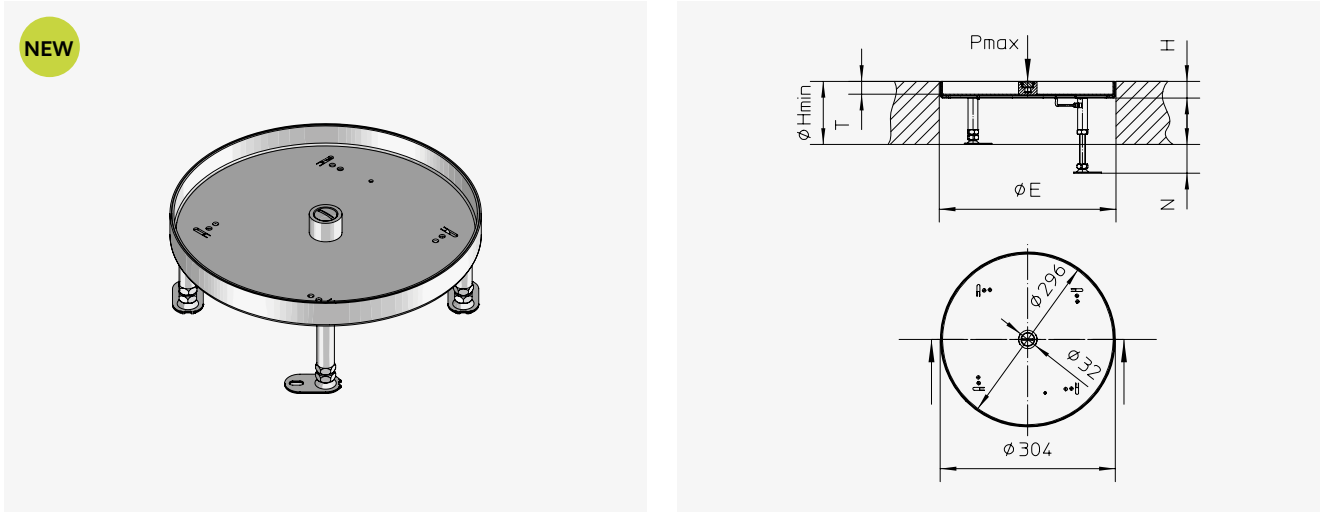
In industrial sectors



Technical building services

Technical data

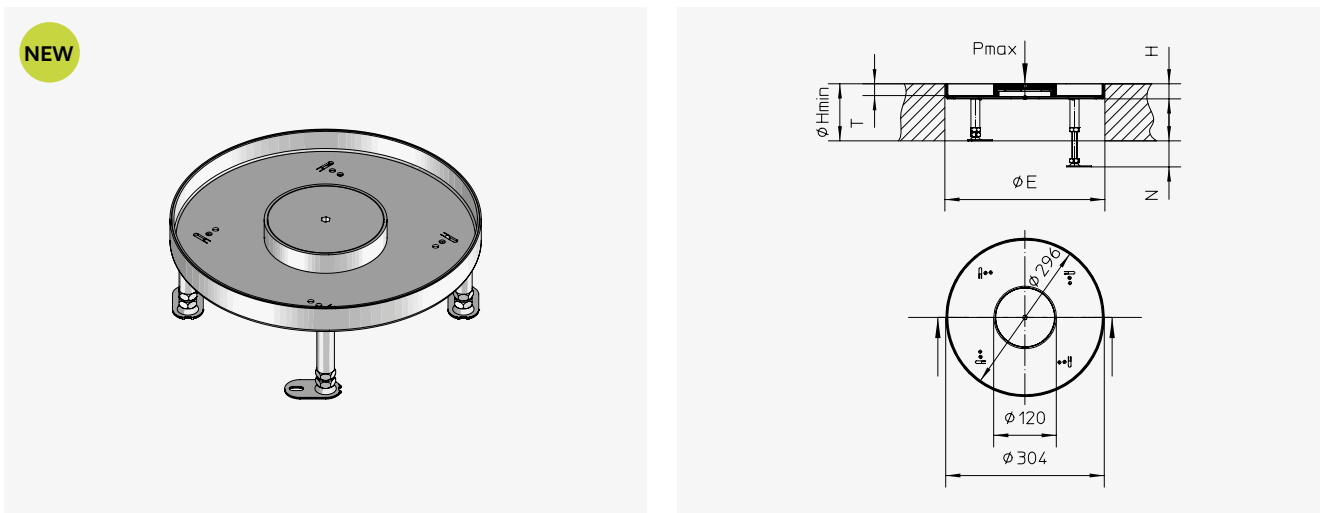
UEBD R MR Blind cassette unit, machine cleaning, triple, round, height-adjustable



Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD 25-R-MR	29	110	+ 55	304	307	22	2	IP 66	2.56

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEBDM R MR Tube cassette unit, machine cleaning, triple, round, height-adjustable



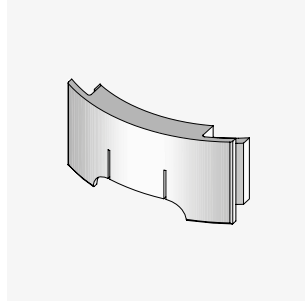
Type	H mm	H _{min} mm	N mm	B mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEBDM 25-R-MR	29	110	+ 55	304	307	22	2	IP 66	IP 43	2.77

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

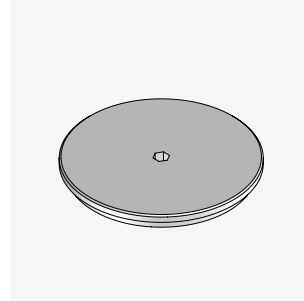
Installation components



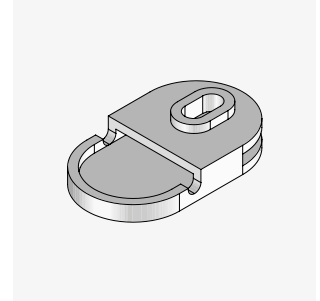
UET112 WD
Tube



UGM
Rubber bushing



UETD112 WD
Tube cover

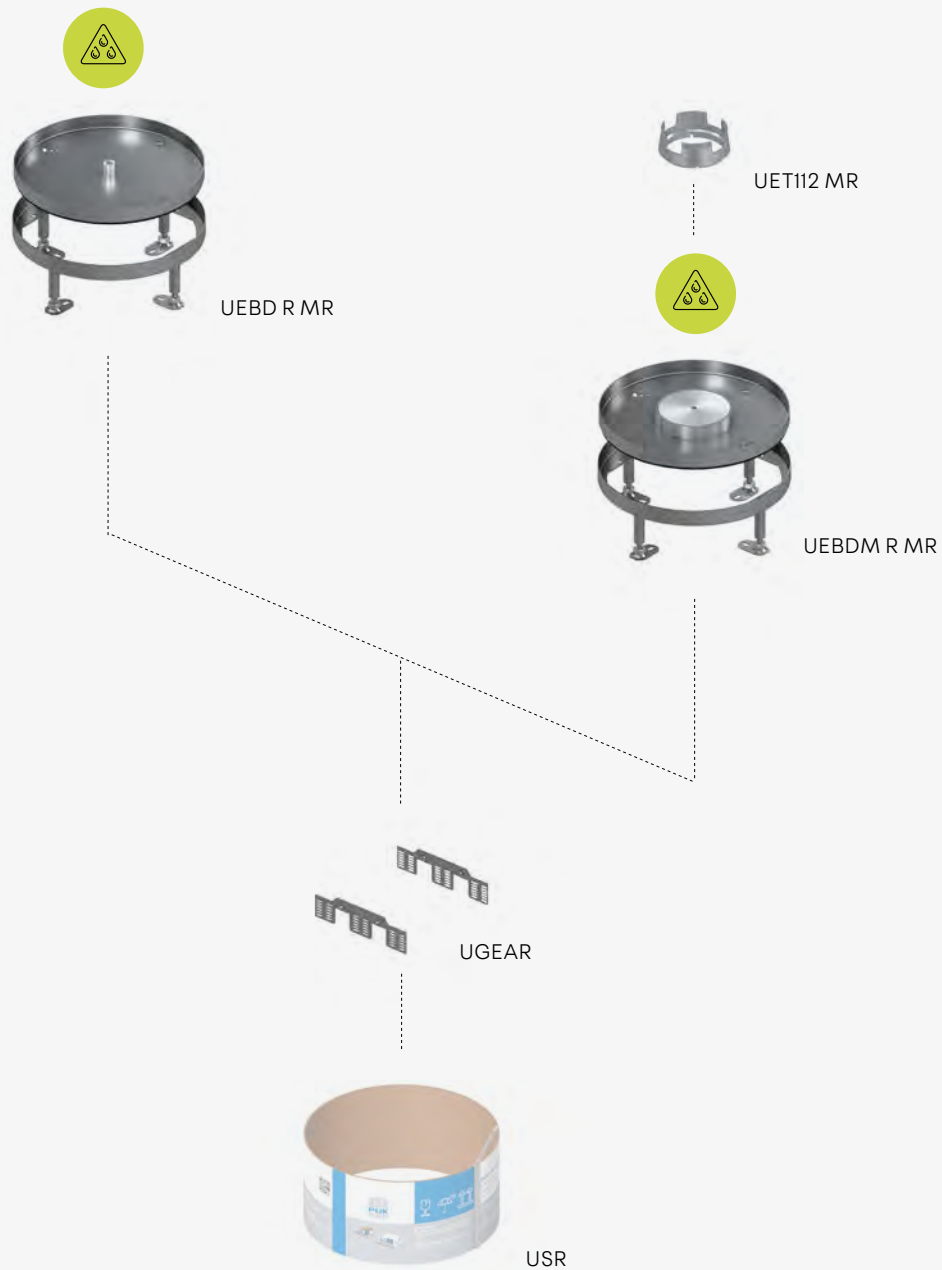


UGM SLF
Subsonic noise sleeve socket
- levelling support

System overview

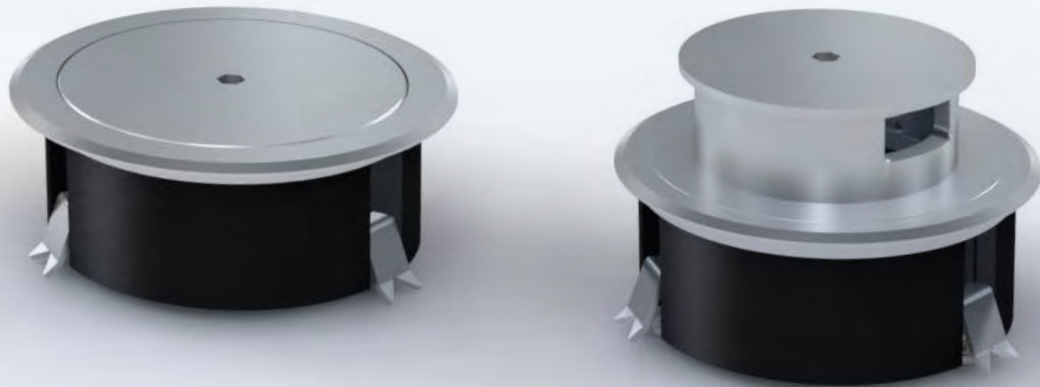
UEBD MR

The installation units of the UEBD series are specially designed for machine cleaning. They protect the electrical installations both from the weight of the machines and the water used for cleaning. Their combined resistance to these two types of impact make this type of application possible, even though it is not covered by DIN EN 50085. The sealing components require regular inspection, cleaning and care.



BODO

Round single outlets



Benefits

- Stylish and safe thanks to the reversible tube or bayonet latch
- Ideal solution for dry-cleaned and wet-cleaned floors
- The perfect power outlet for heavy-duty applications (BODO N)
- Suitable for cleaning with machines when closed (BODO N)
- Flexible applications
- VDE-certified

Areas of application

BODO single outlets provide highly flexible power and data supplies for indoor applications. When closed, the round single outlets are suitable for machine cleaning and can be driven over with a weight of 1.5 tonnes without affecting their visual or mechanical properties. This makes them the ideal solution for museums, car showrooms or shopping centres. The floor-mounted version of the BODO system is also perfect for use in rooms that are constantly being changed, such as exhibition spaces or event rooms.



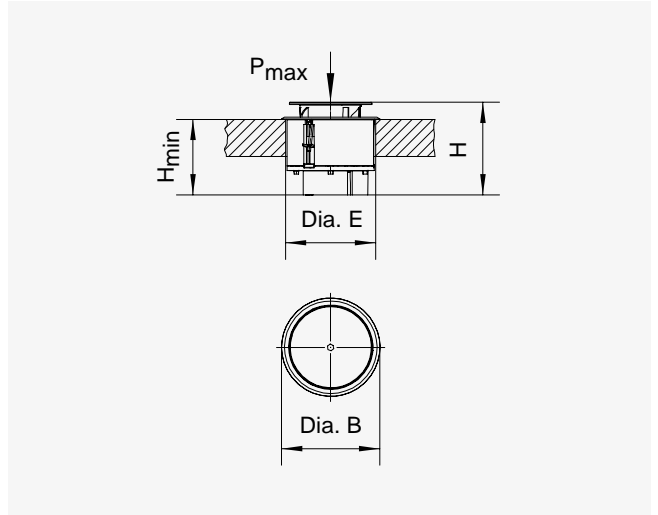
In industrial sectors



Technical building services

Technical data

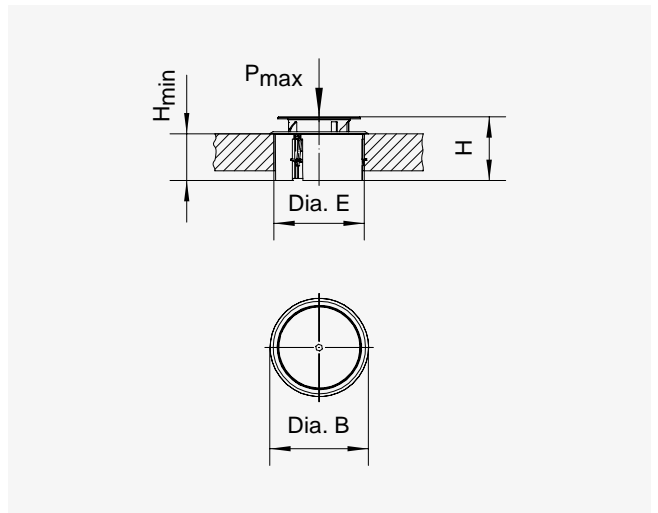
BODO T Single outlet with one floor socket, dry-clean, round



Type	H mm	H _{min} mm	B mm	E mm	Colour	P _{max} kN	IP _n	IP _g	G kg
BODO T-G	126	102	133	122	RAL 7011 (iron grey)	1.5	IP 30	IP 20	0.40
BODO T-S	126	102	133	122	RAL 9011 (graphite black)	1.5	IP 30	IP 20	0.40

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

BODO TL Single outlet, dry-clean, round, empty

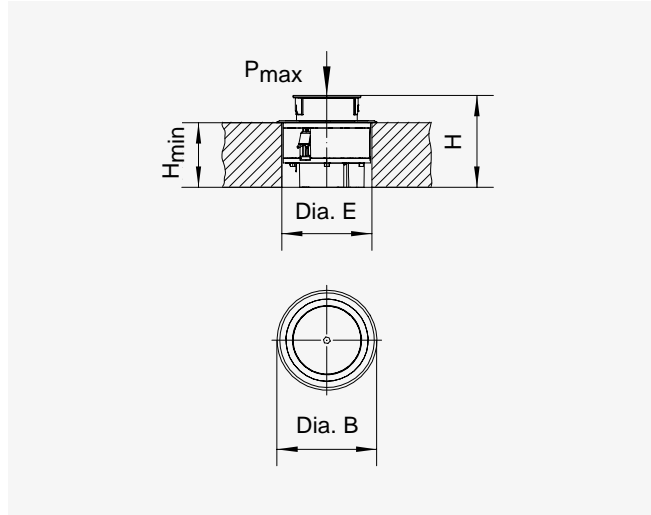
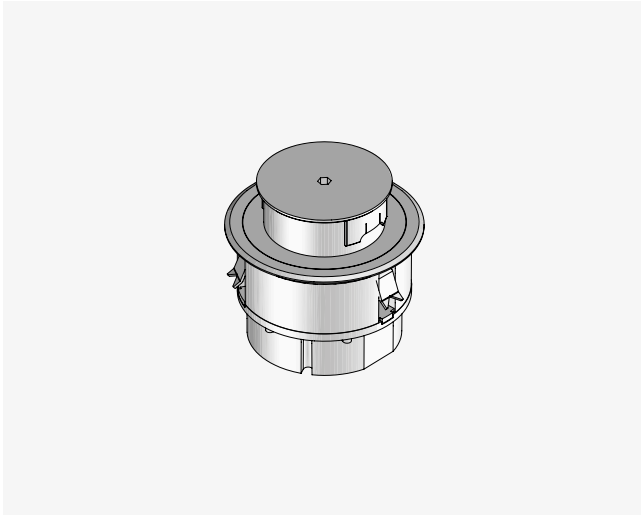


Type	H mm	H _{min} mm	B mm	E mm	Colour	P _{max} kN	IP _n	IP _g	G kg
BODO TL-G	87	63	133	122	RAL 7011 (iron grey)	1.5	IP 30	IP 20	0.20
BODO TL-S	87	63	133	122	RAL 9011 (graphite black)	1.5	IP 30	IP 20	0.20

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

BODO N Single outlet with one floor socket and one data module, wet-clean, round



Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	Material	Colour	IP _n	IP _g	G kg
BODO N	122	87	140	122	15	Aluminium	Aluminium	IP 66	IP 43	0.73
BODO N-SW	122	87	140	122	15	Aluminium	Black	IP 66	IP 43	0.73
BODO N-CR	122	87	140	122	15	Aluminium	Chrome	IP 66	IP 43	0.73
BODO N-MMS	122	87	140	122	15	Brass	Brass	IP 66	IP 43	1.51
BODO N-E	122	87	140	122	15	Stainless steel	Stainless steel	IP 66	IP 43	1.46

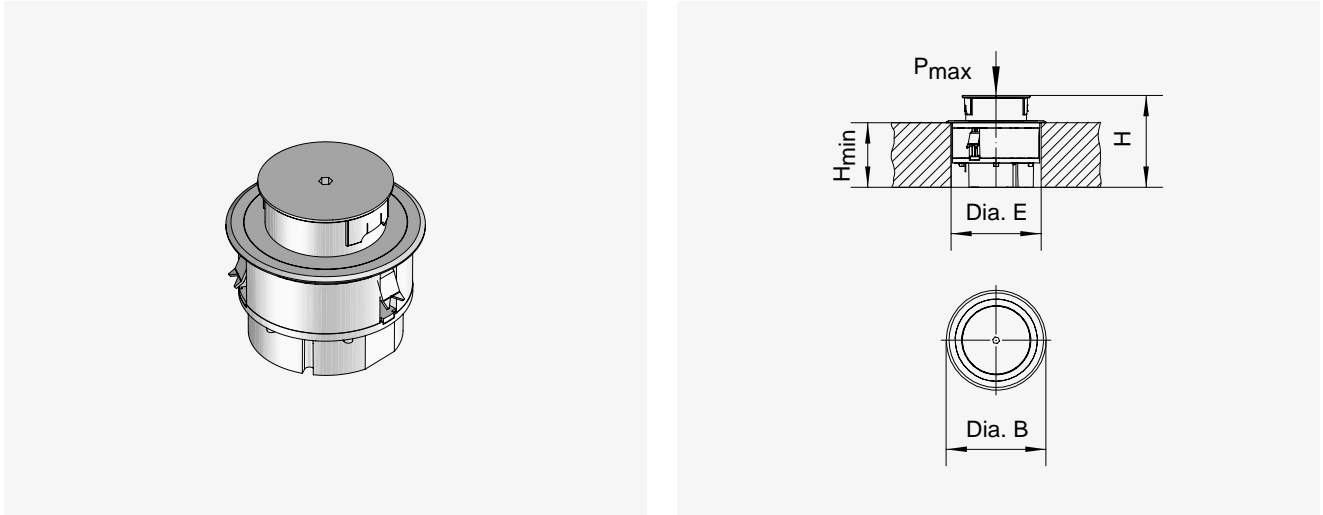
H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight



Protection class IP 43 when in use can only be achieved by using a rubber bushing. Without a rubber bushing, the protection class is IP 22.

Technical data

BODO N3 Single outlet with one floor socket, wet-clean, round



Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	Material	Colour	IP _n	IP _g	G kg
BODO N3	122	87	140	122	15	Aluminium	Aluminium	IP 66	IP 43	0.70
BODO N3-SW	122	87	140	122	15	Aluminium	Black	IP 66	IP 43	0.70
BODO N3-CR	122	87	140	122	15	Aluminium	Chrome	IP 66	IP 43	0.70
BODO N3-MMS	122	87	140	122	15	Brass	Brass	IP 66	IP 43	1.47
BODO N3-E	122	87	140	122	15	Stainless steel	Stainless steel	IP 66	IP 43	1.43

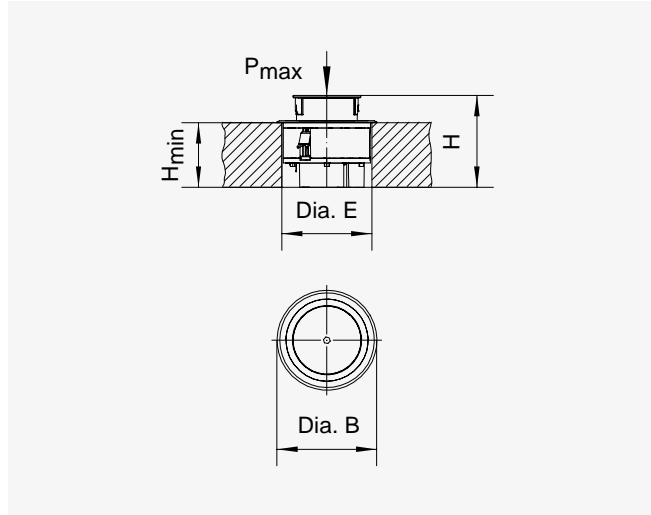
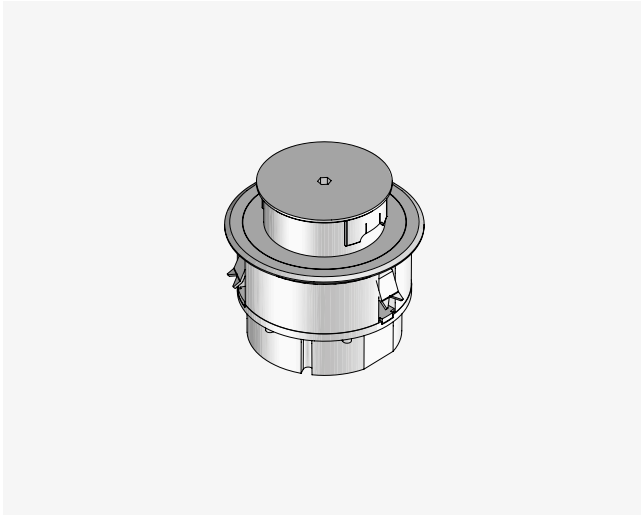
H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight



Protection class IP 43 when in use can only be achieved by using a rubber bushing. Without a rubber bushing, the protection class is IP 22.

Technical data

BODO N4 Single outlet with two floor sockets, wet-clean, round



Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	Material	Colour	IP _n	IP _g	G kg
BODO N4	122	87	140	122	15	Aluminium	Aluminium	IP 66	IP 43	0.74
BODO N4-SW	122	87	140	122	15	Aluminium	Black	IP 66	IP 43	0.74
BODO N4-CR	122	87	140	122	15	Aluminium	Chrome	IP 66	IP 43	0.74
BODO N4-MMS	122	87	140	122	15	Brass	Brass	IP 66	IP 43	1.51
BODO N4-E	122	87	140	122	15	Stainless steel	Stainless steel	IP 66	IP 43	1.47

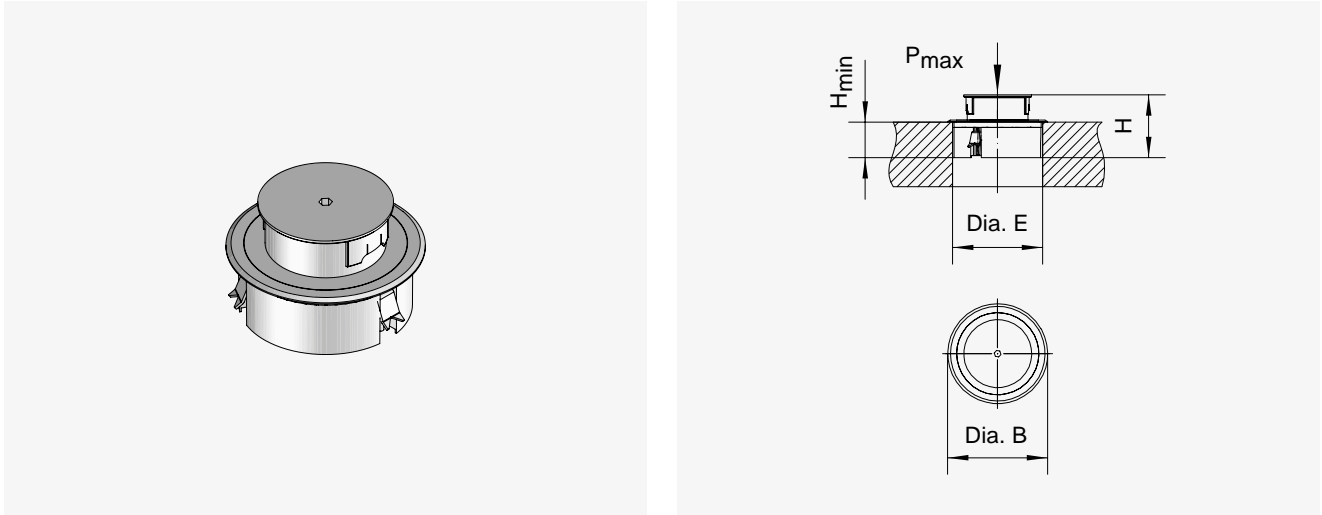
H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight



Protection class IP 43 when in use can only be achieved by using a rubber bushing. Without a rubber bushing, the protection class is IP 22.

Technical data

BODO NL Single outlet, wet-clean, round, empty

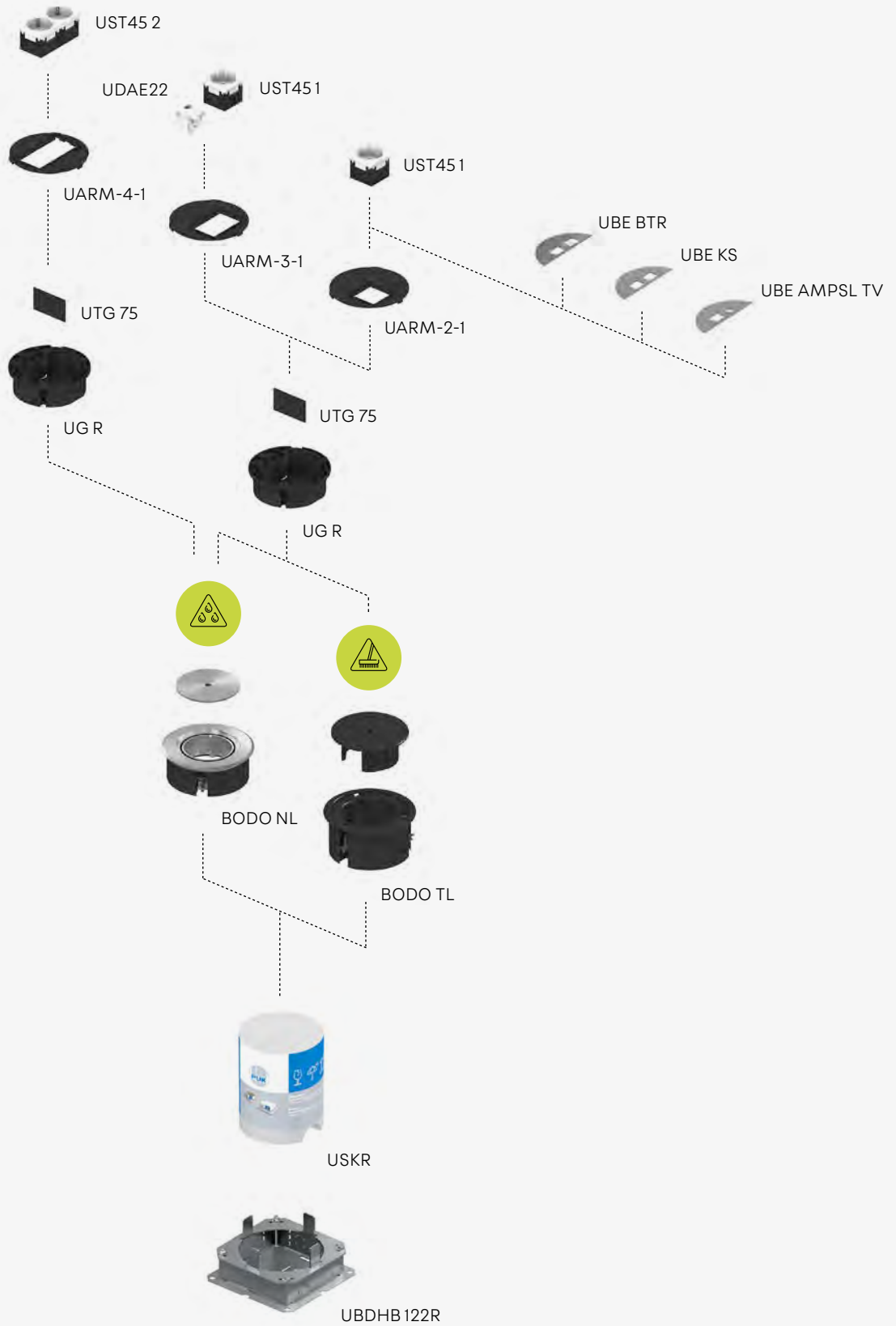


Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	Material	Colour	IP _n	IP _g	G kg
BODO NL	83	48	140	122	15	Aluminium	Aluminium	IP 66	IP 43	0.55
BODO NL-SW	83	48	140	122	15	Aluminium	Black	IP 66	IP 43	0.55
BODO NL-CR	83	48	140	122	15	Aluminium	Chrome	IP 66	IP 43	0.55
BODO NL-MMS	83	48	140	122	15	Brass	Brass	IP 66	IP 43	1.33
BODO NL-E	83	48	140	122	15	Stainless steel	Stainless steel	IP 66	IP 43	1.28

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight



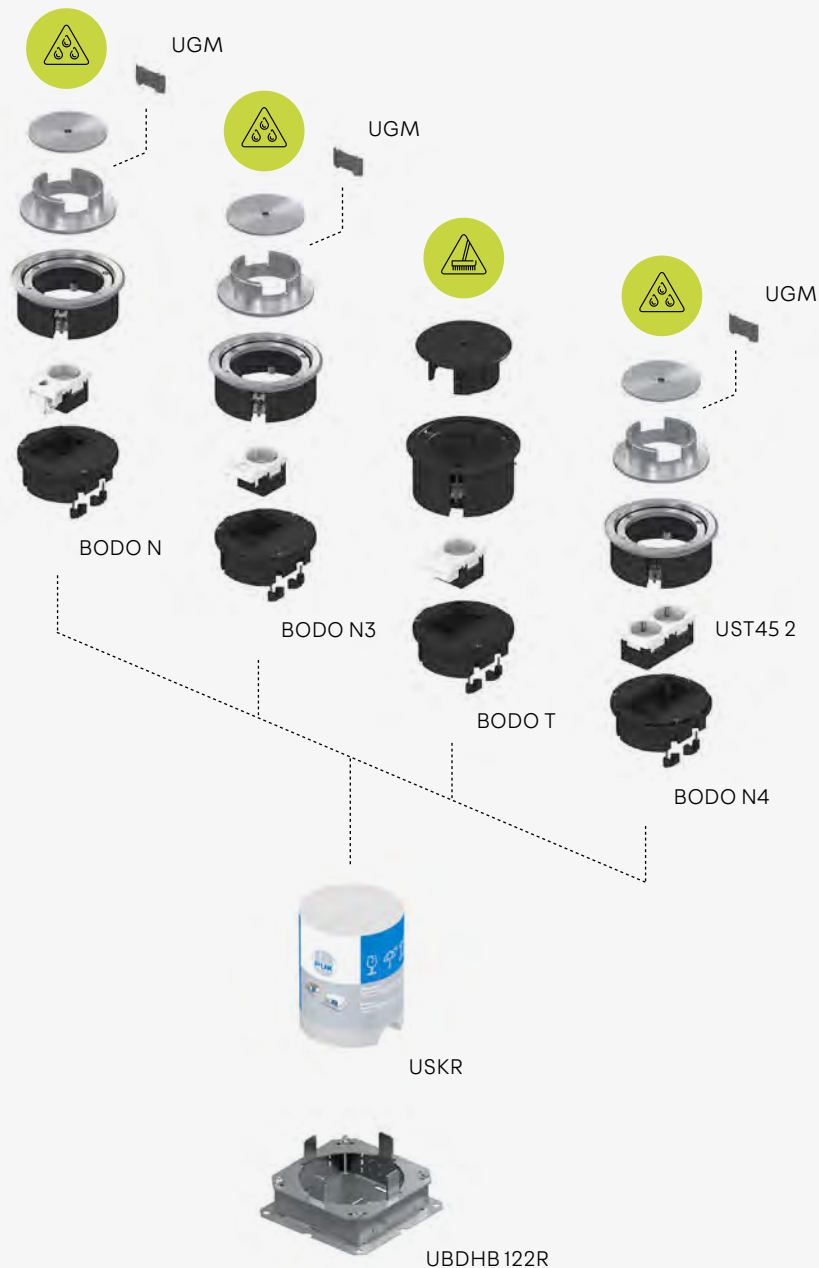
Protection class IP 43 when in use can only be achieved by using a rubber bushing. Without a rubber bushing, the protection class is IP 22.



System overview

BODO

The round single outlets of the BODO series give you maximum flexibility when designing and planning your electrical supply. You can easily and quickly adjust or retrofit the quantity or arrangement of single outlets in a room. BODO is suitable for screed floors and raised floors and blends into your rooms stylishly and discreetly. The single outlet can be flexibly positioned and has a patented opening mechanism that guarantees maximum safety for dry-cleaned and wet-cleaned floors.

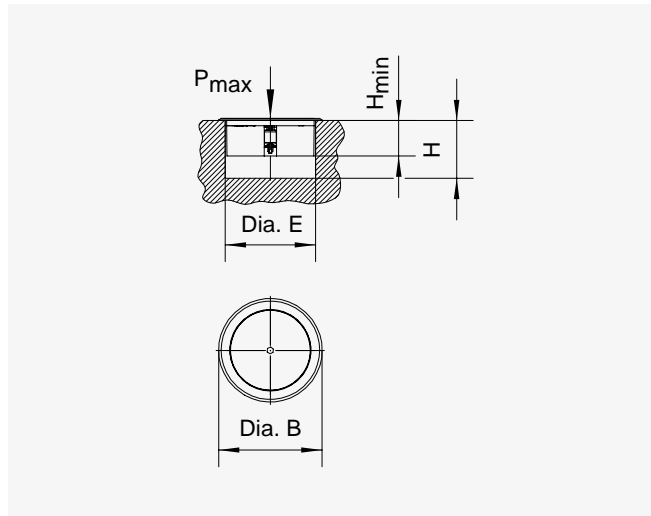


BODO NA

Mini media column

Technical data

BODO NA Cable outlet, dummy

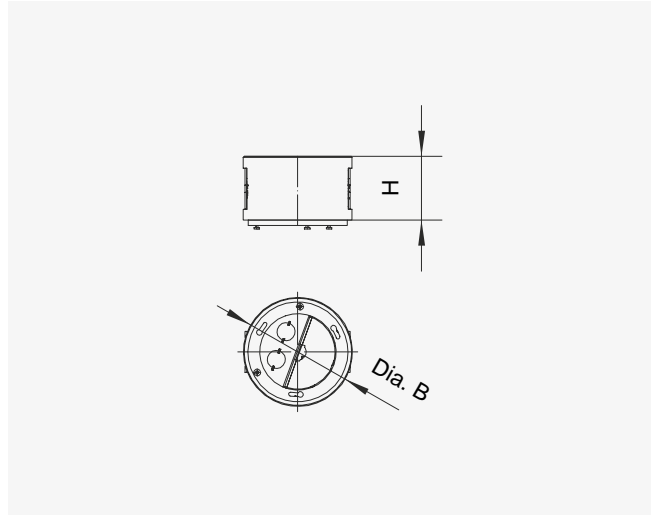


Type	H mm	H _{min} mm	B mm	E mm	P _{max} kN	Design	Material	IP _n	IP _g	G kg
BODO NA-L	48	87	140	122	15	Dummy	Aluminium	IP 66	IP 20	0.48

H: Height | H_{min}: Minimum installation height | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

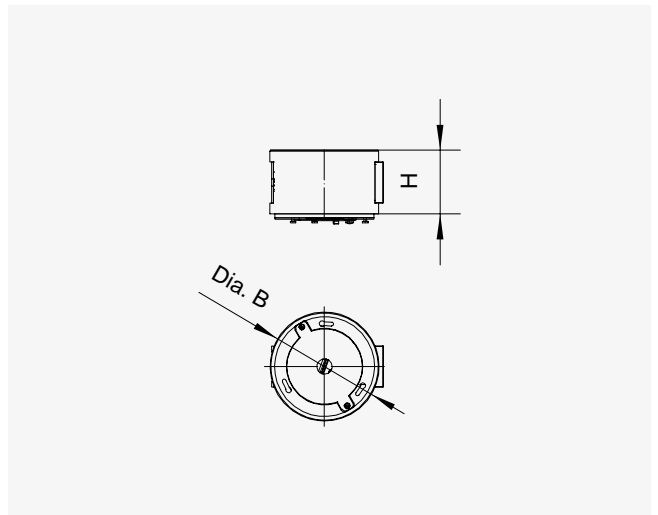
BODO NAT On-floor tube outlet, empty



Type	H mm	B mm	P _{max} kN	Design	Material	IP _g	G kg
BODO NAT-L	70	120	15	2x UAA-B 45	Aluminium	IP 20	0.74

H: Height | B: Width | P_{max}: Maximum permissible load | IP_g: IP protection class when in use | G: Weight

BODO NAT-W On-floor tube outlet with one socket



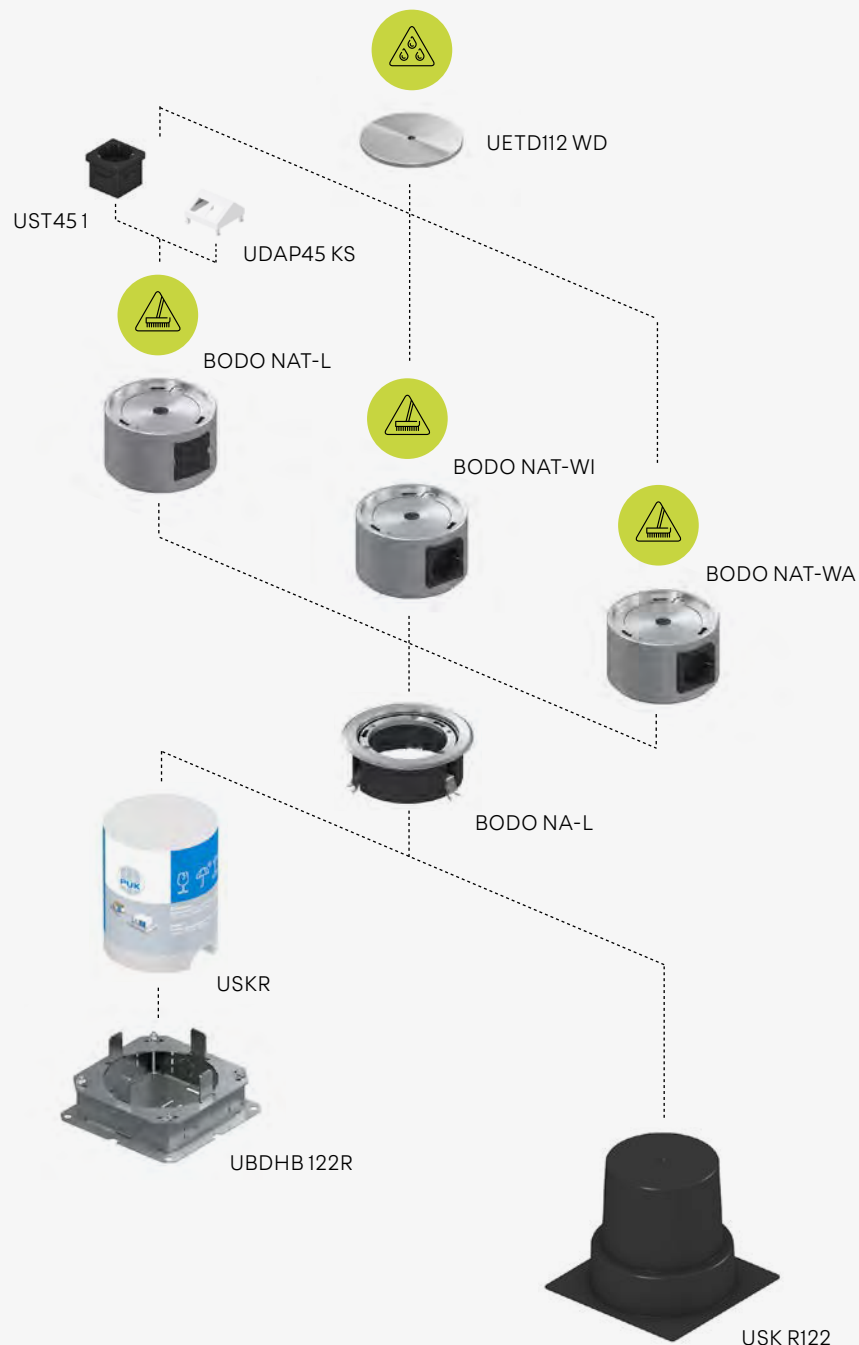
Type	H mm	B mm	P _{max} kN	Design	Material	IP _g	G kg
BODO NAT-WA	70	120	15	Wago	Aluminium	IP 20	0.87
BODO NAT-WI	70	120	15	Wieland	Aluminium	IP 20	0.88

H: Height | B: Width | P_{max}: Maximum permissible load | IP_g: IP protection class when in use | G: Weight

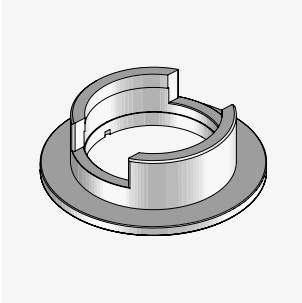
System overview

BODO NAT

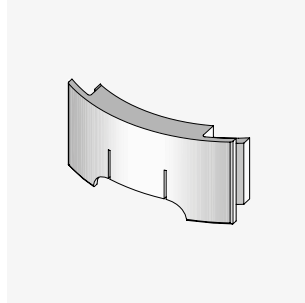
The on-floor BODO is a flexible mini media column for indoor use. The dummy version lets you place the round cable outlets anywhere in the room. If required, they can be supplemented with a tube outlet for up to two installation devices 45x45 mm or a tube outlet with pre-assembled Wieland or WAGO connectors. The BODO NAT is easy to open and close thanks to the patented bayonet latch. This cable outlet is suitable for floors from 50 mm thick and can be installed in screed floors, raised floors or hollow floors without requiring any levelling work.



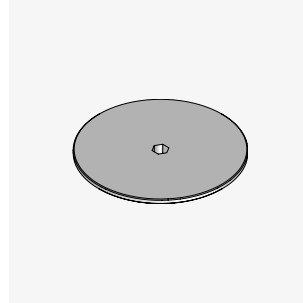
Installation components



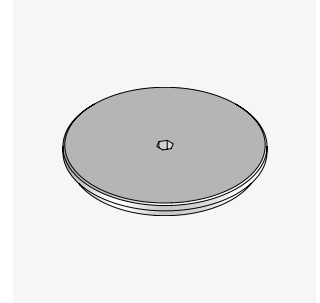
UET80 WD
Tube



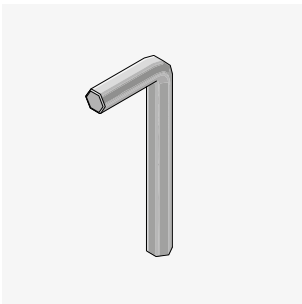
UGM
Rubber bushing



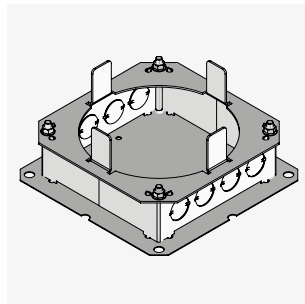
UETD80 WD
Tube cover



UETD112 WD
Tube cover



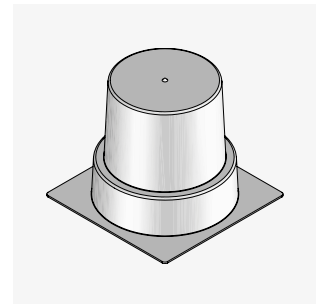
UWZ IS
Allen key



UBDHB 122R
Hollow floor box single,
round, connection width
150 mm, connection height
42 mm, tube connection
dia. 20 mm



USKR
Shuttering unit, round



USK R122
Shuttering, round

UEBD1 / UEKD1

Angular single outlets



Benefits

- Suitable for screed floors, raised floors and hollow floors
- Ideal for dry-cleaned, damp-cleaned and wet-cleaned indoor floors
- Space-saving and robust
- Can be positioned as required
- Easy to assemble

Areas of application

The angular single outlets are often used in medical practices, law firms, car dealerships or hotel lobbies. Their modern design provides power and data connections discreetly and elegantly. The system is extremely robust. Depending on the design, it is suitable for both office traffic and heavy traffic loads.



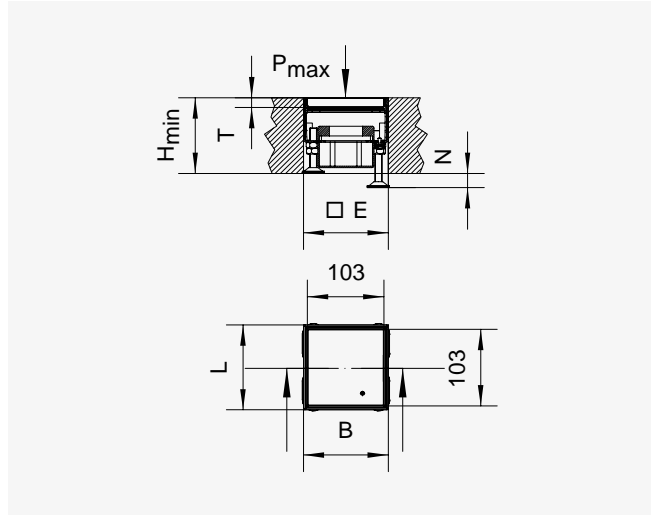
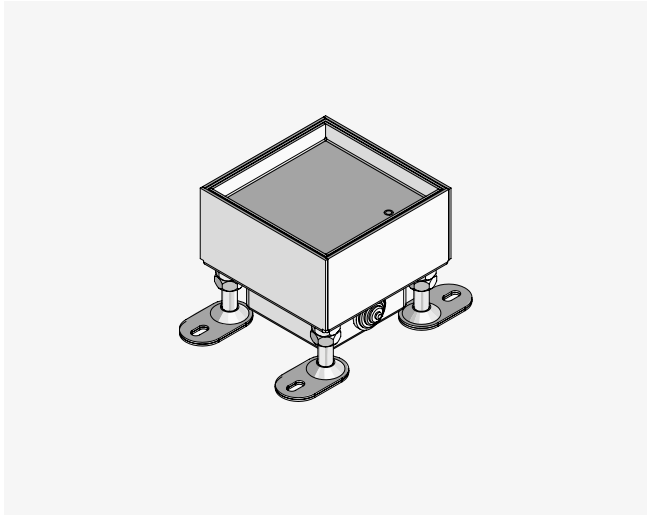
In industrial sectors



Technical building services

Technical data

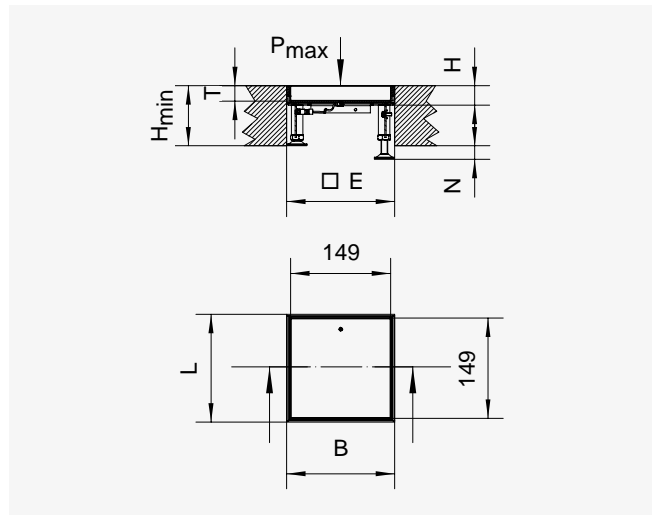
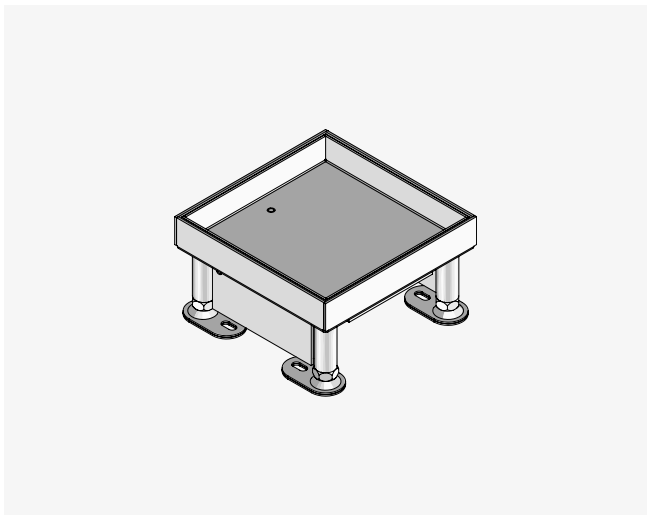
UEBD1-1 V E Stainless steel, dummy cover single outlet cassette, single, angular



Type	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD1-1 15-V E	100	+ 20	115	115	115 x 115	12	2	IP 54	2.20

H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEBD1-2 V E Stainless steel, dummy cover single outlet cassette, double, angular

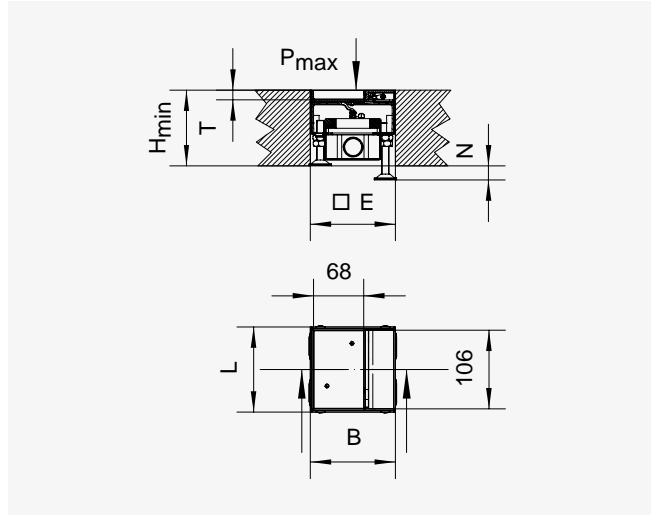
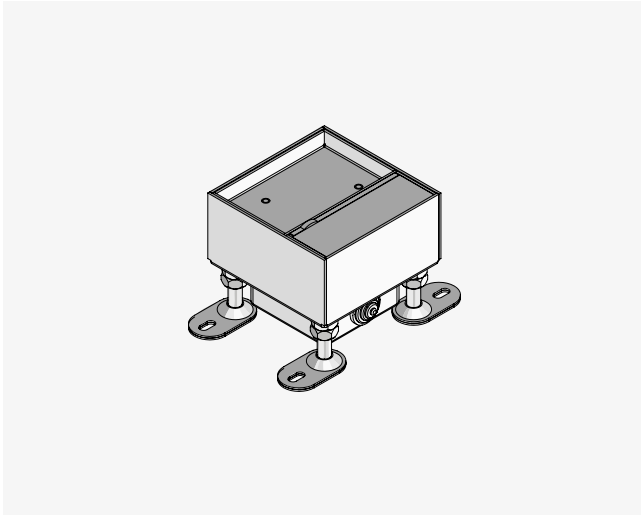


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	G kg
UEBD1-2 15-V E	19	80	+ 45	160	160	164 x 164	12	2	IP 54	1.80
UEBD1-2 25-V E	29	90	+ 45	160	160	164 x 164	22	2	IP 54	1.90

H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

Technical data

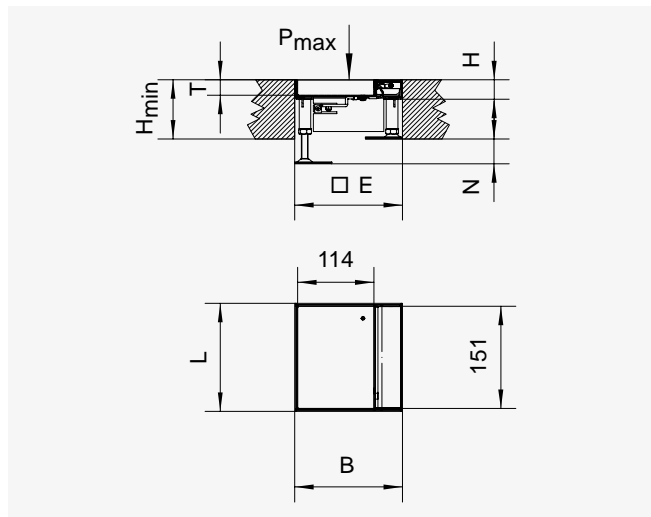
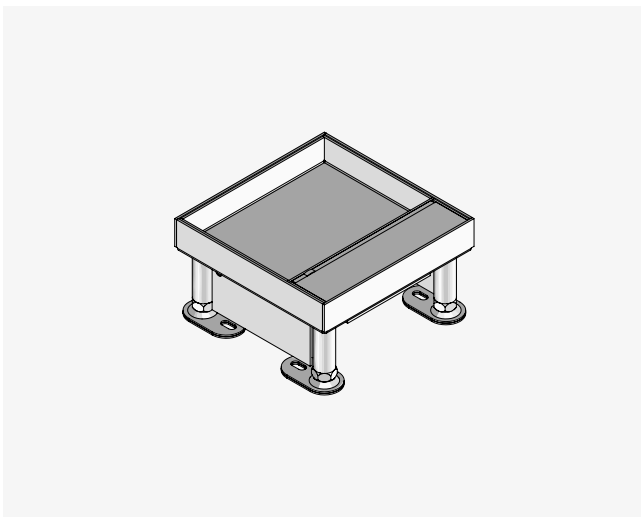
UEKD1-1 V E Stainless steel, hinged cover single outlet cassette, single, angular



Type	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UEKD1-1 15-V E	100	+ 20	115	115	115 x 115	12	2	IP 30	IP 20	1.70

H_{min}: Minimum installation height | B: Width | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | G: Weight

UEKD1-2 V E Stainless steel, hinged cover single outlet cassette, double, angular

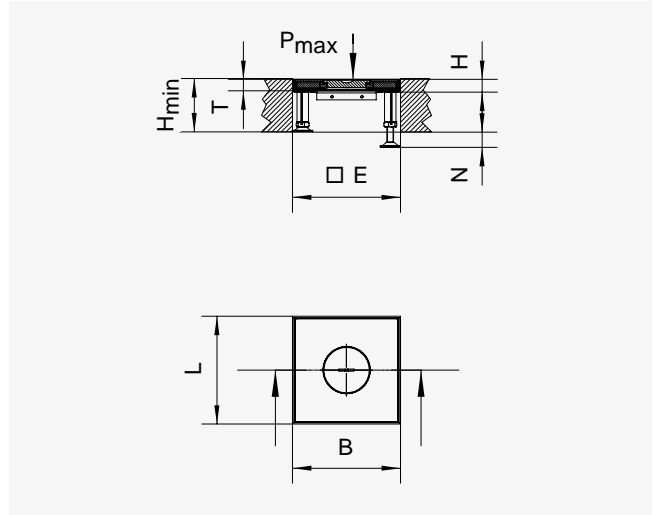
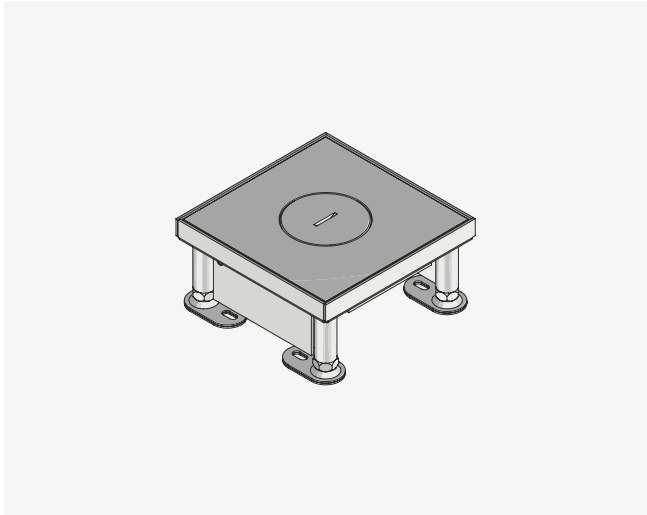


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	IP _g	G kg
UEKD1-2 15-V E	19	80	+ 45	160	160	164 x 164	12	2	Stainless steel	IP 30	IP 20	1.20
UEKD1-2 25-V E	29	90	+ 45	160	160	164 x 164	22	2	Stainless steel	IP 30	IP 20	1.30
UEKD1-2 25-V MS	29	90	+ 45	160	160	164 x 164	22	2	Brass	IP 30	IP 20	1.30

H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

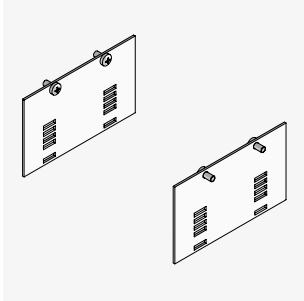
UEBDSM1-2 V WD Stainless steel, heavy-duty, tube cover single outlet cassette, double, angular



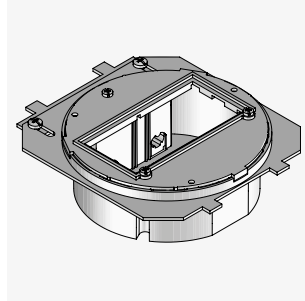
Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UEBDSM1-2 15-V8-WD	19	80	+ 45	160	160	164 x 164	20	IP 54	IP 22	4.39

H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Installation components



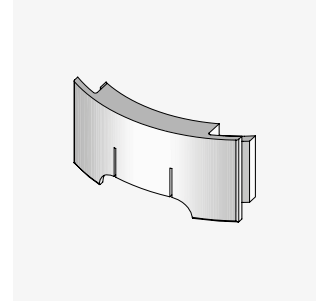
UGEAV1-2
Snap-in ladder set for single outlet cassette, double, angular



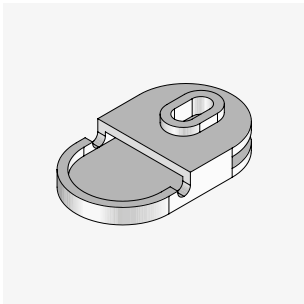
UGR1-4
Mounting box, round, pre-assembled



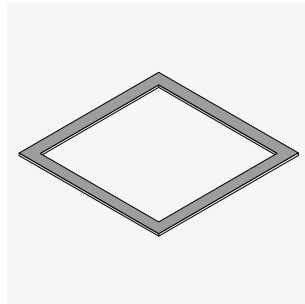
UET
Tube



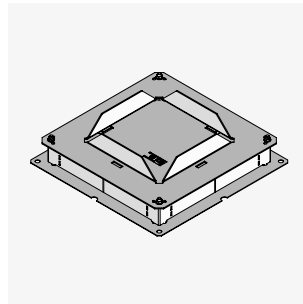
UGM
Rubber bushing



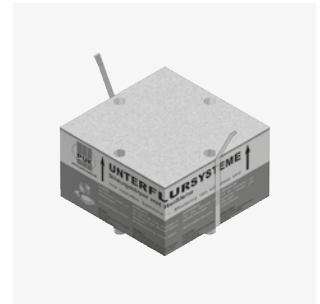
UGM SLF
Subsonic noise sleeve socket - levelling support



UGD1-2 V
Rubber seal, angular



UBDHB190 1V
Hollow floor box, single, angular, connection width 270 mm, connection height 31/41/51 mm

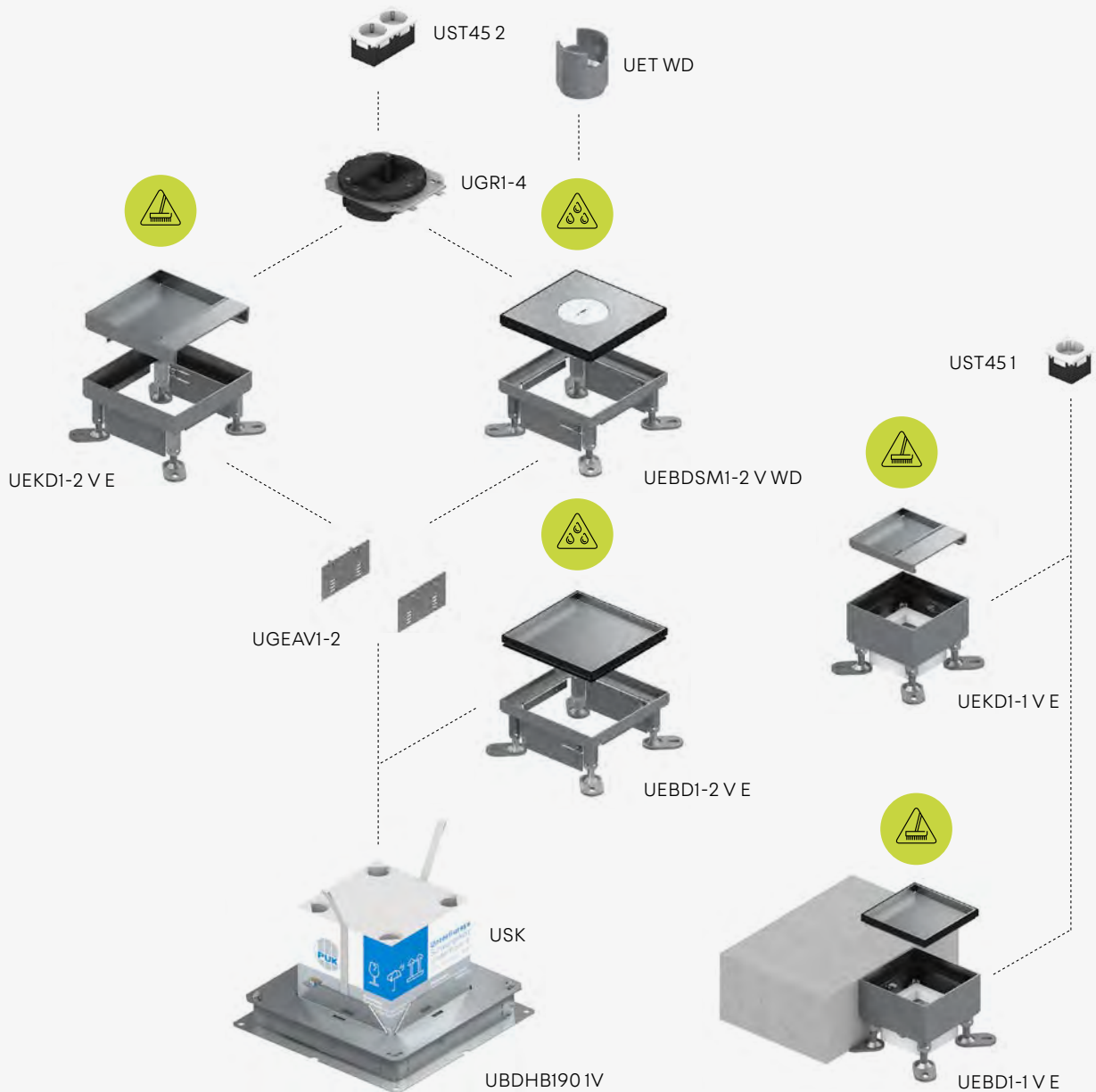


USK
Shuttering unit, angular

System overview

UEBD1 / UEKD1

Single outlets elegantly conceal data, power and multimedia connections. The square units all have a height-adjustable cassette mounting frame and are suitable for rooms with dry-cleaned, damp-cleaned or wet-cleaned floor coverings depending on the type. Assembly is quick and easy.



UBS

Cleaning sockets



Benefits

- VDE-compliant
- Cost-efficient solution

Areas of application

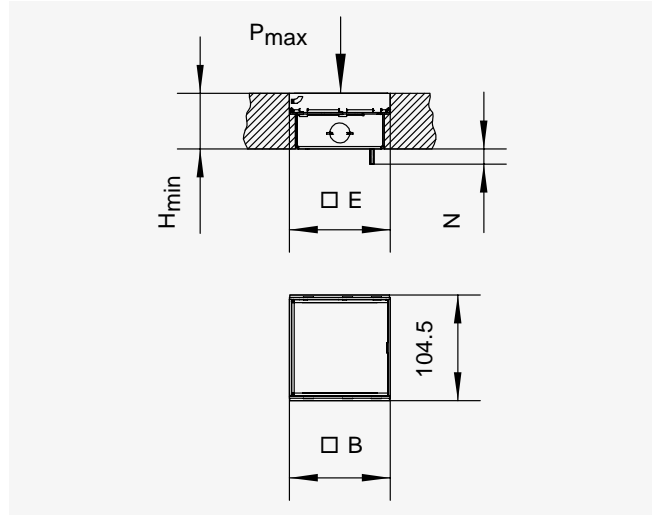
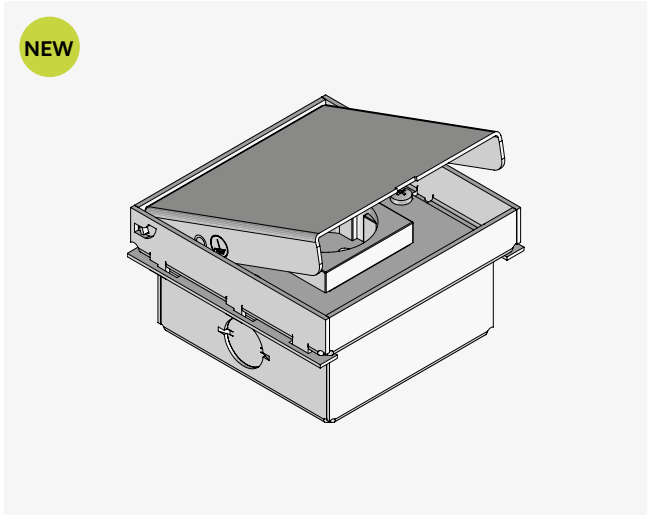
Cleaning sockets are socket outlets that can be strategically positioned for use in almost any room. They come in particularly handy for short-term use, for example for connecting cleaning machines and vacuum cleaners. The units should be arranged with a maximum spacing of 9 m to ensure optimum coverage for plugging in the equipment. The individual cleaning sockets are assigned to separate circuits. They are now considered standard elements of technical building services and are included in almost every building plan. We provide three different versions with dummy covers, hinged covers and tube covers to accommodate the different requirements of various rooms and users.



Technical building services

Technical data

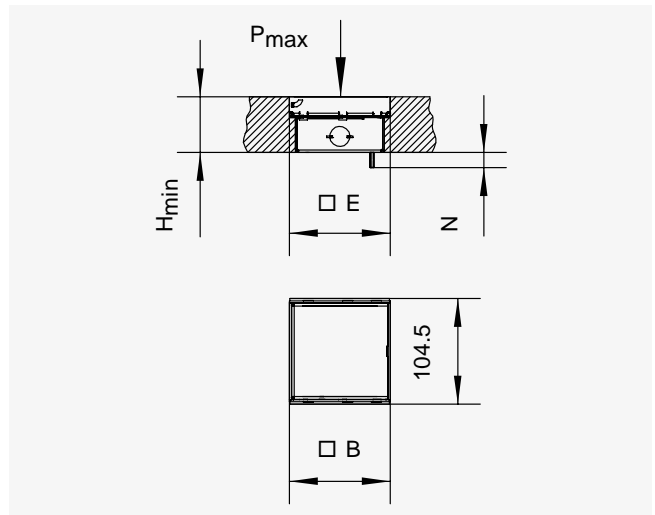
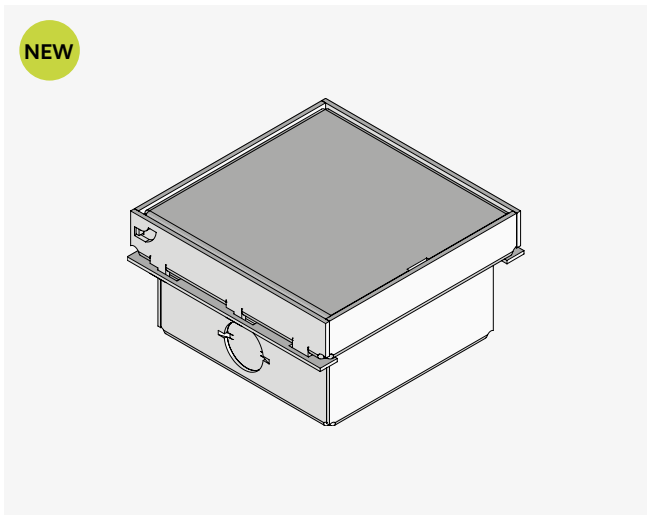
UBSK V E Cleaning socket, single, angular, height-adjustable



Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UBSK-V W1 E	19	55	+ 15	100	100	105 x 110	2	IP 40	IP 20	0.70

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UBSK VP E Cleaning socket, single, angular, height-adjustable

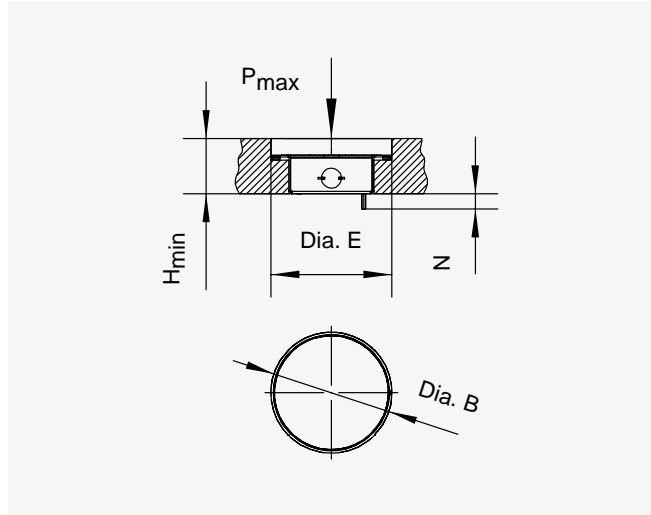
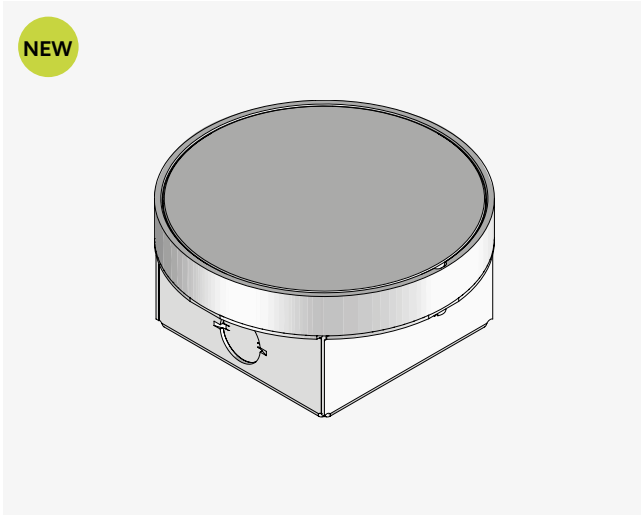


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UBSK-VP W1 E	19	55	+ 15	100	100	105 x 110	2	IP 54	IP 20	0.92

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

UBST R WD Cleaning socket, single, round, height-adjustable



Type

	H	H _{min}	N	B	E	P _{max}	IP _n	IP _g	G
	mm	mm	mm	mm	mm	kN			kg
UBST-R W1-WD	17	55	+ 15	120	125	2	IP 66	IP 43	0.65

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Installation components



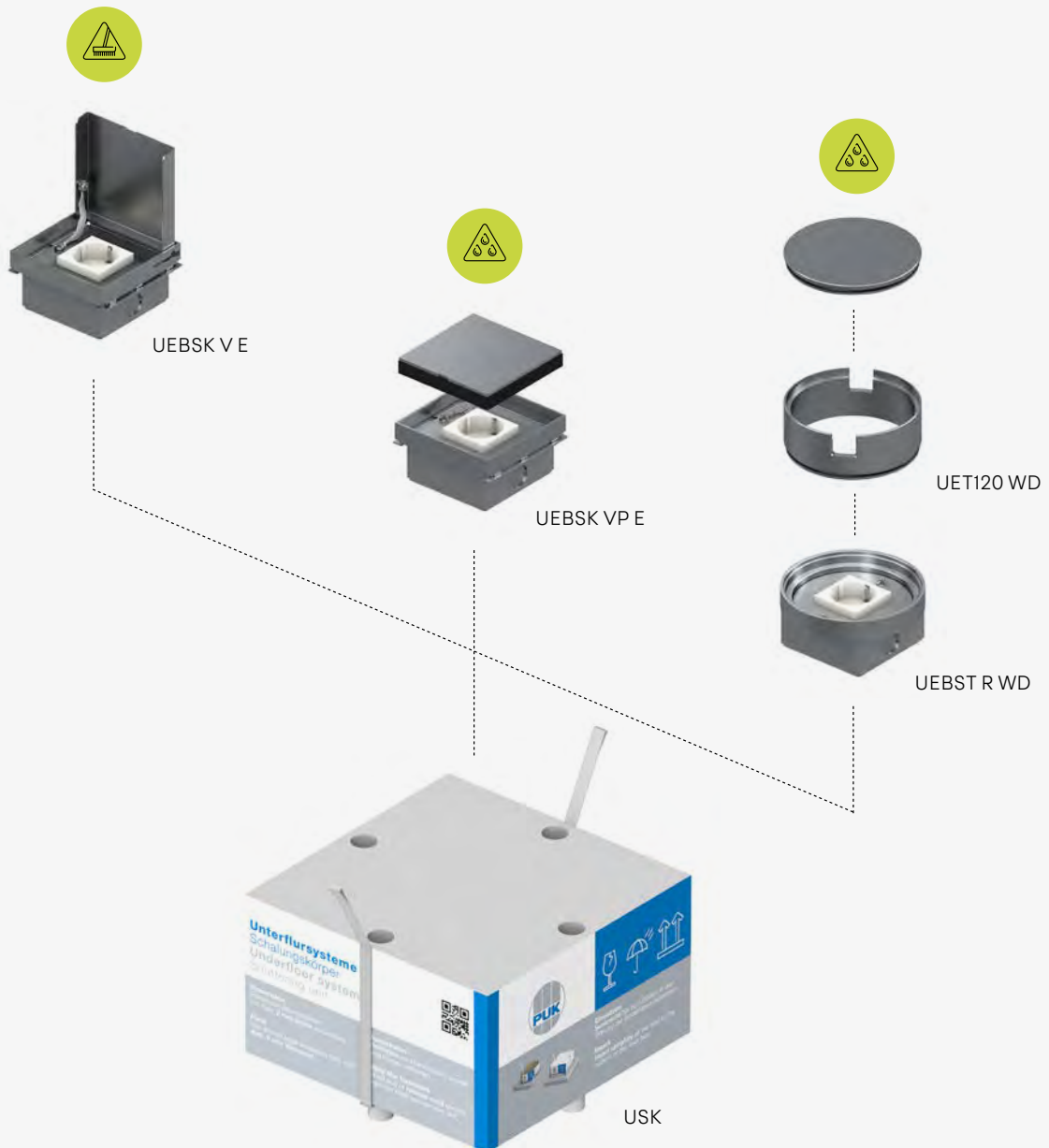
UET120 WD

Tube

System overview

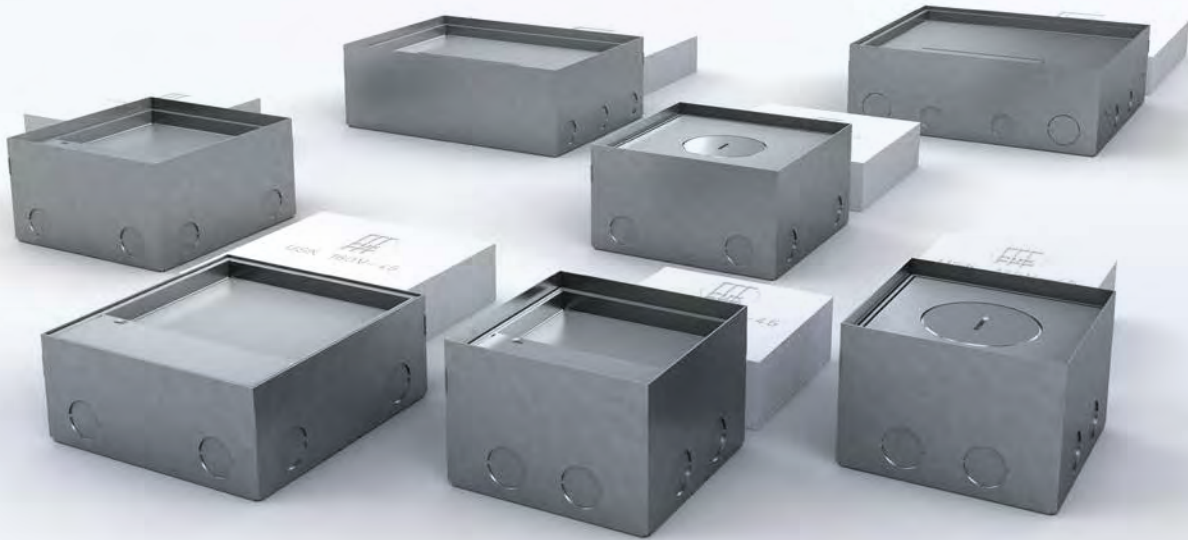
UBS

Cleaning sockets are an integral part of technical building services. They are included in almost every room plan to optimise the power supply for running cleaning equipment and vacuum cleaners. We provide three different versions with dummy covers, hinged covers and tube covers to accommodate different requirements.



UKE

Angular compact single outlets



Benefits

- Discreet and robust power supply
- The shuttering unit lets the outlet be adjusted to the floor height after installation
- Wide range of equipment options
- VDE-tested and certified
- Suitable for areas with office traffic loads and heavy-duty applications

Areas of application

Elegant and discreet, simple and impressive: The UKE square single outlet has an impressively compact design, which gives it a stylish but discreet look. This single outlet is designed for loads typical in showrooms, office and residential buildings, hotels or shopping centres.



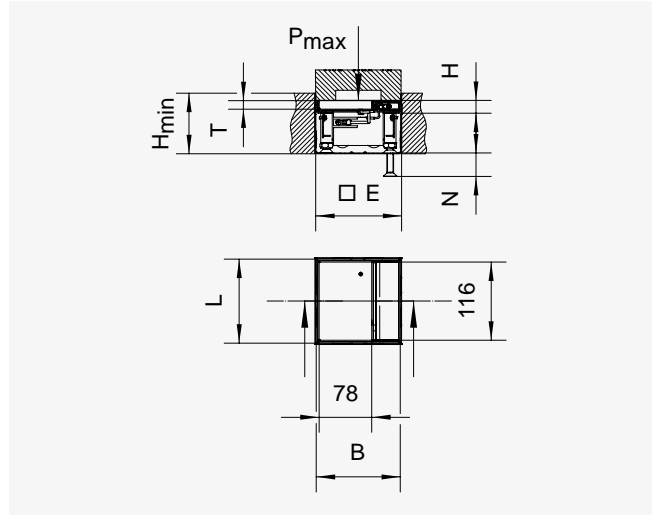
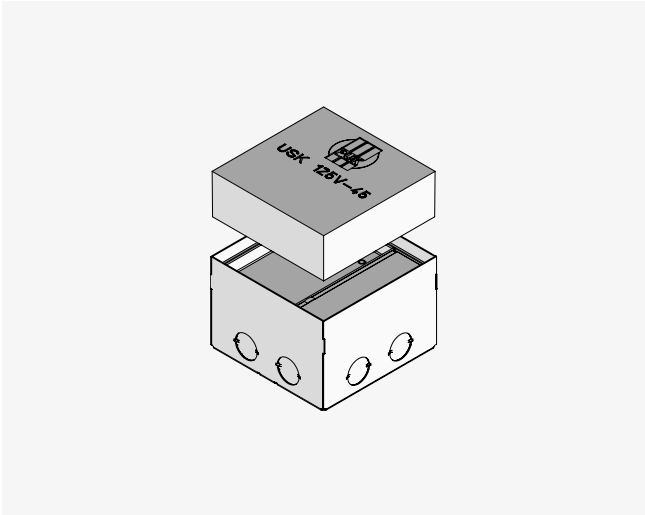
In industrial sectors



Technical building services

Technical data

UKE125 V stainless steel, hinged cover, compact single outlet, double, angular

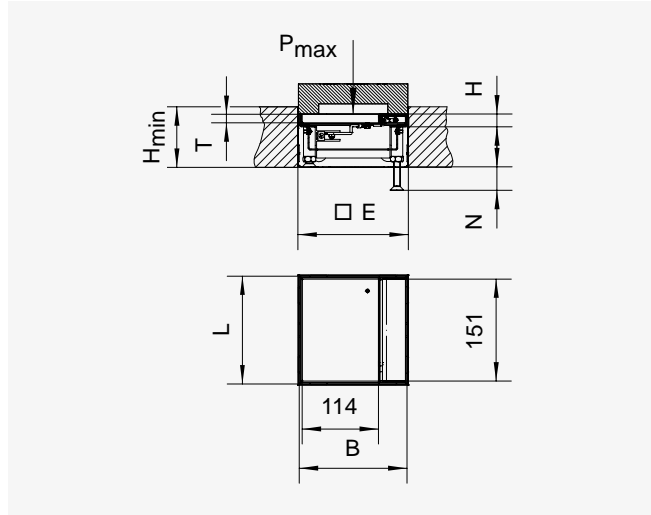
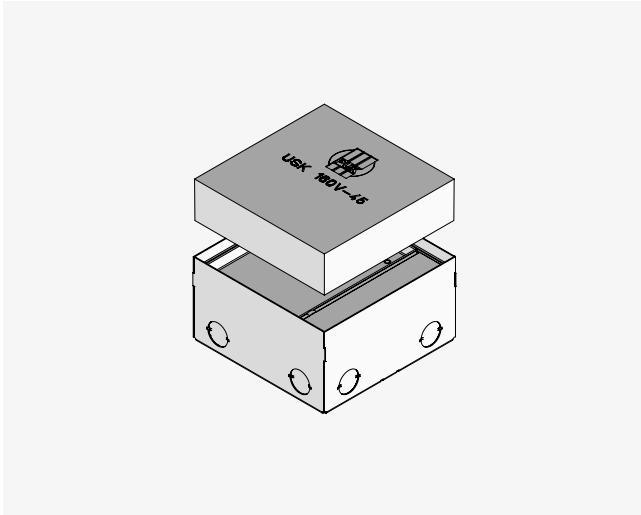


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	IP _g	G kg
UKE125 15-V E	15	90	+ 35	125	125	131 x 131	12	2	Stainless steel	IP 30	IP 20	1.74
UKE125 25-V E	25	100	+ 35	125	125	131 x 131	22	2	Stainless steel	IP 30	IP 20	1.97
UKE125 25-V MS	25	100	+ 35	125	125	131 x 131	19	2	Brass	IP 30	IP 20	2.24

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

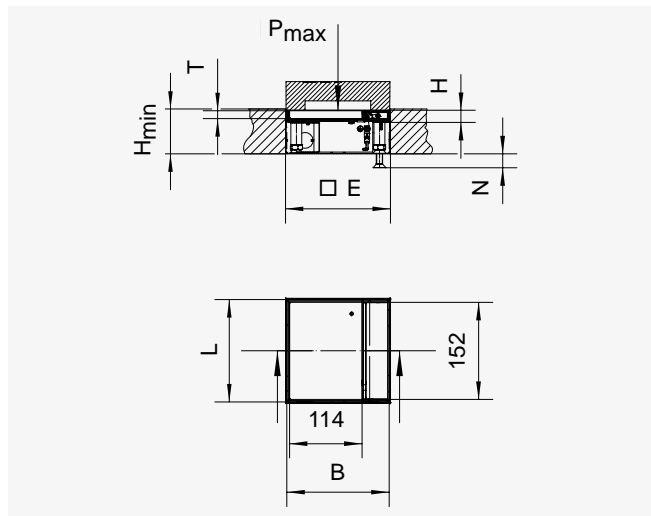
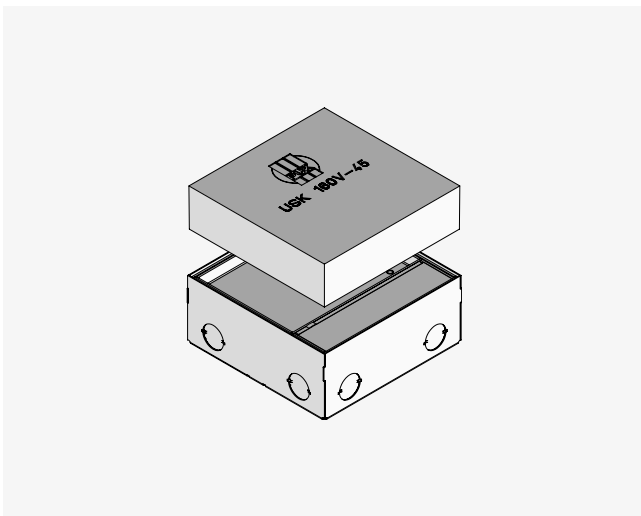
UKE160 V Stainless steel, hinged cover, compact single outlet, quadruple, angular



Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	Material	IP _n	IP _g	G kg
UKE160 15-V E	15	90	+ 35	160	160	166 x 166	12	2	Stainless steel	IP 30	IP 20	2.39
UKE160 25-V E	25	100	+ 35	160	160	166 x 166	22	2	Stainless steel	IP 30	IP 20	2.66
UKE160 25-V MS	25	100	+ 35	160	160	166 x 166	19	2	Brass	IP 30	IP 20	3.19

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UKEF160 V Stainless steel, hinged cover, compact single outlet, quadruple, angular, flat

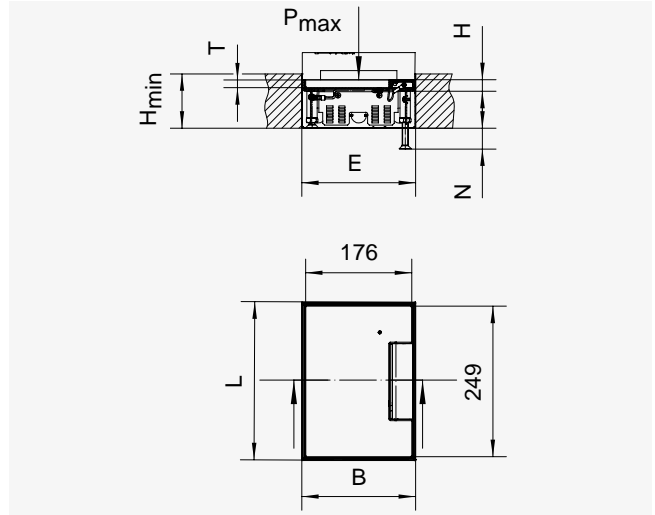
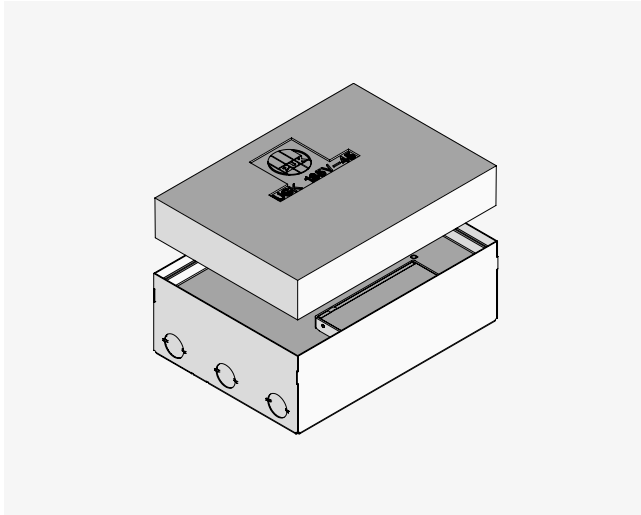


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UKEF160 15-V E	15	70	+ 20	160	160	166 x 166	12	2	IP 30	IP 20	2.05

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

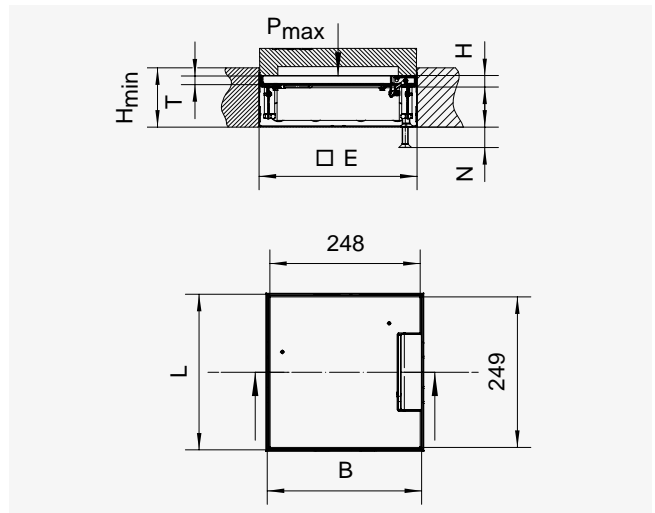
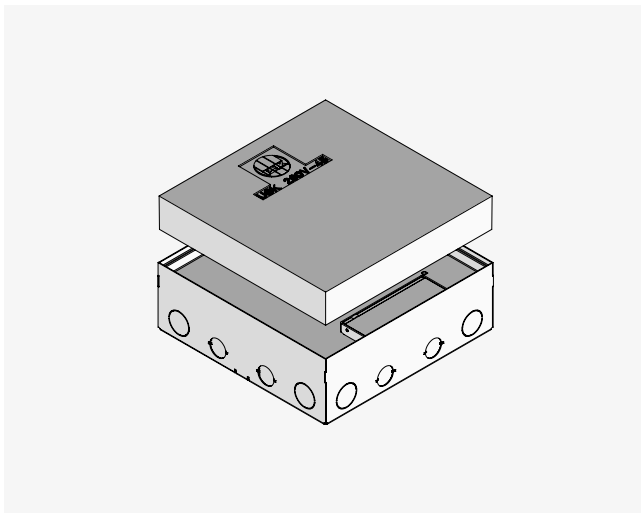
UKE185 V Stainless steel, hinged cover, compact single outlet, octuple, angular



Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UKE185 15-V E	15	90	+ 35	184	258	190 x 264	12	2	IP 30	IP 20	3.28
UKE185 25-V E	25	100	+ 35	184	258	190 x 264	22	2	IP 30	IP 20	3.65

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

UKE260 V Stainless steel, hinged cover, compact single outlet, 12-fold, angular

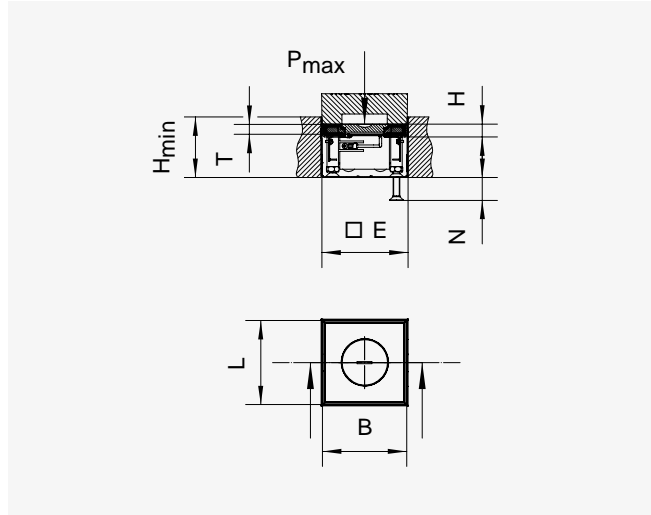
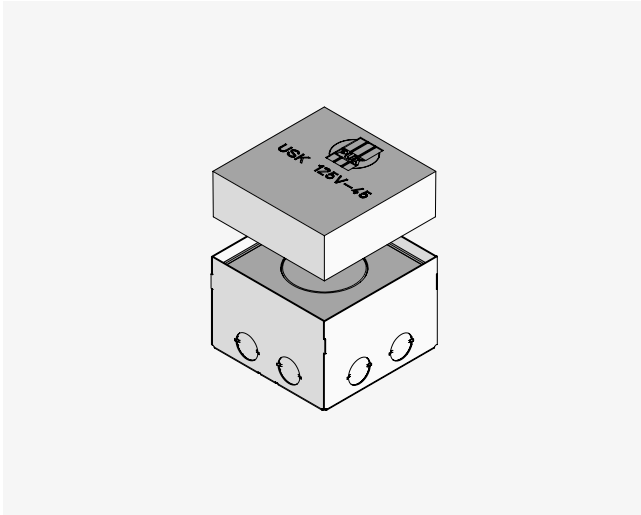


Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	T mm	P _{max} kN	IP _n	IP _g	G kg
UKE260 15-V E	15	90	+ 35	258	258	264 x 264	12	2	IP 30	IP 20	3.83
UKE260 25-V E	25	100	+ 35	258	258	264 x 264	22	2	IP 30	IP 20	4.20

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | T: Depth | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

Technical data

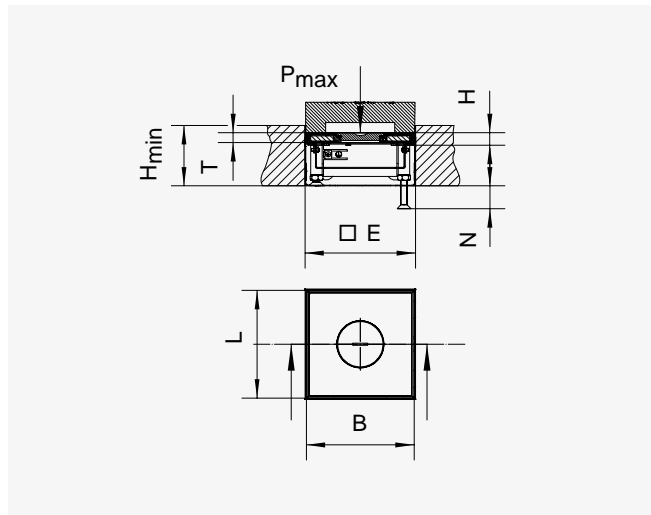
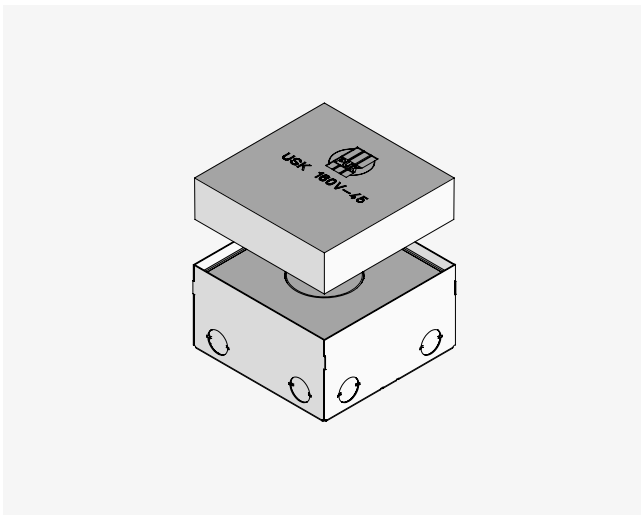
UKE125 VP WD Stainless steel, tube cover, compact single outlet, double, angular



Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UKE125 15-VP-WD	15	90	+ 35	125	125	131 x 131	20	IP 54	IP 22	2.60

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

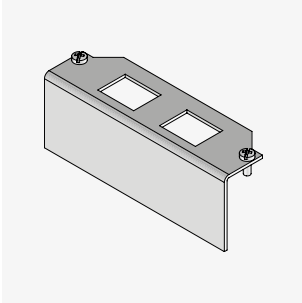
UKE160 VP WD Stainless steel, tube cover, compact single outlet, quadruple, angular



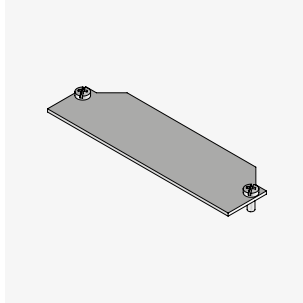
Type	H mm	H _{min} mm	N mm	B mm	L mm	E mm	P _{max} kN	IP _n	IP _g	G kg
UKE160 15-VP-WD	15	90	+ 35	160	160	166 x 166	20	IP 54	IP 22	4.04

H: Height | H_{min}: Minimum installation height | N: Levelling range | B: Width | L: Length | E: Installation dimension | P_{max}: Maximum permissible load | IP_n: IP protection class when not in use | IP_g: IP protection class when in use | G: Weight

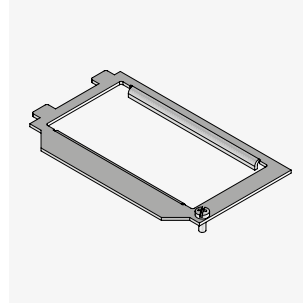
Installation components



UEP125 KS
Installation board, Keystone



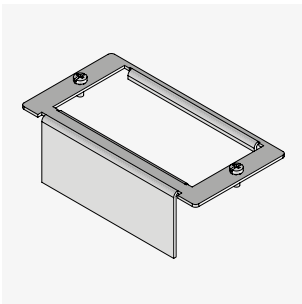
UEP125 B
Installation board, dummy



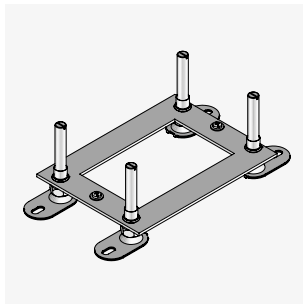
UEP125 UST
Installation board, sockets



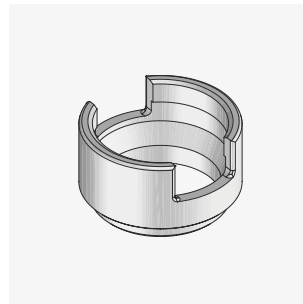
UEP160 UST
Installation board, sockets



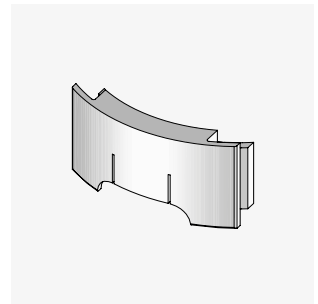
UEP160 UST-TR
Installation board, sockets



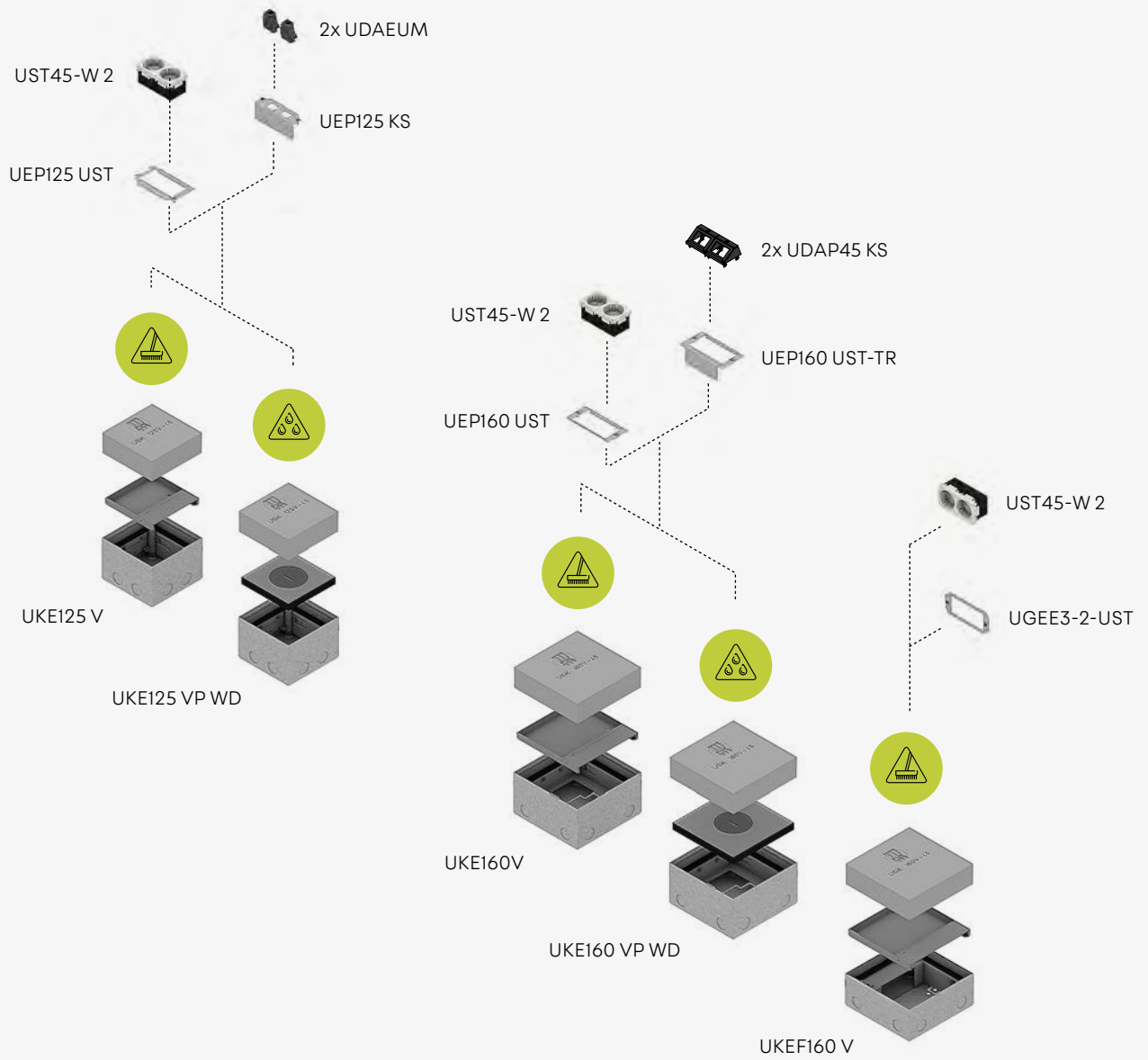
UKENP125 / 160 / 185 / 260
Levelling board, levelling range from 25 to 75 mm



UET WD
Tube



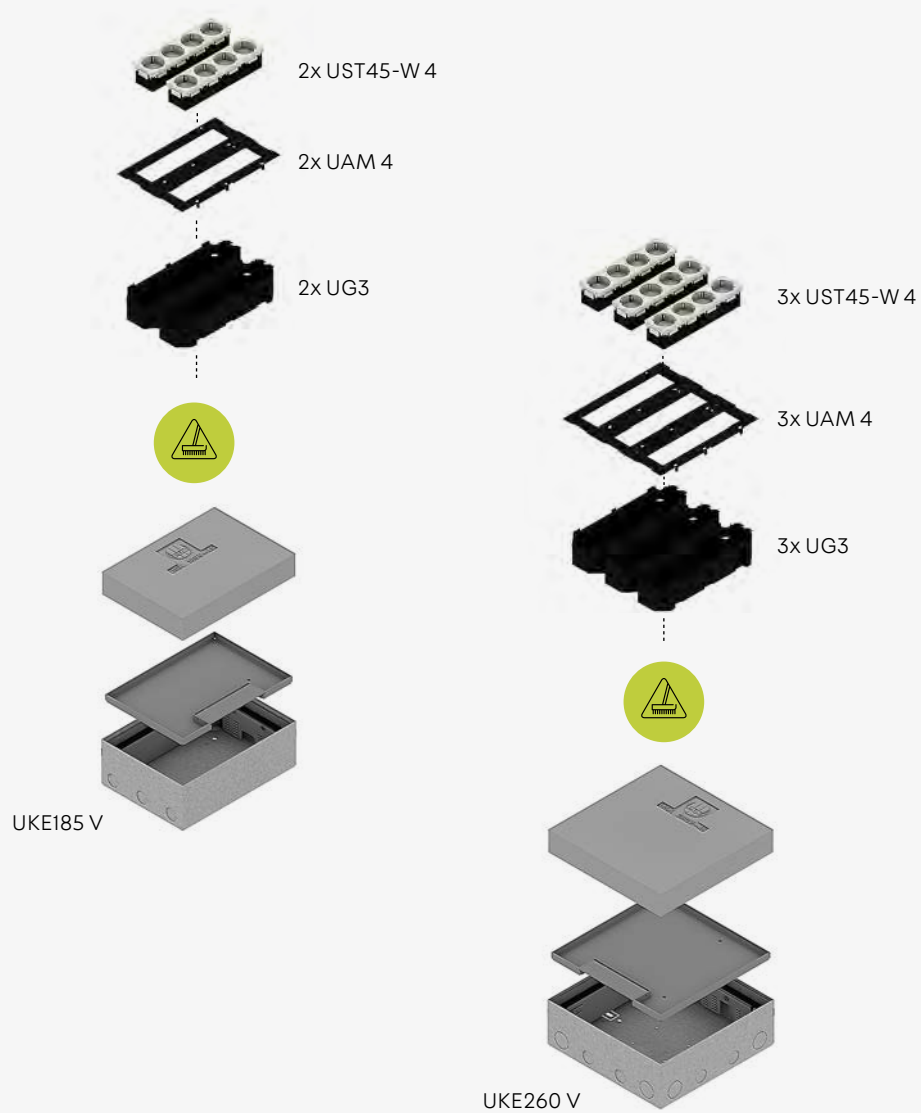
UGM
Rubber bushing



System overview

UKE

The compact UKE single outlet is a robust, self-contained system consisting of only a few components. The outlet is supplied with a shuttering unit. The compact single outlet can be adjusted to the required floor height even if the screed has already been poured and the floor covering has already been laid. The unit has a variety of internal equipment options.



Planning notes

Planning-relevant issues

1. Type of floor system

- Screed-flush
- Screed-covered
- Raised or hollow floor

2. Floor structure

Height from bare concrete to top of screedmm

Floor covering thicknessmm

Total floor structuremm

Screed thicknessmm

3. System resilience

- Office traffic loads
- Heavy traffic loads

4. Floor covering

- Carpet
- Linoleum
- Parquet

Other:.....

5. Flooring cleaning method

- Dry-cleaned rooms
- Wet-cleaned rooms

6. Unit shape

- Round
- Angular

7. Material

- Plastic
- Stainless steel

8. Fittings

Number of installed powered devices:units

Number of data technology devices installed:units

9. Requirements

- Fire safety certificate
- Acoustic testing
- Approval

Installation requirements

On-site requirements

The following requirements must be met before an underfloor duct system can be properly installed:

- Approved dimensioned installation plan specifying the location of all installation parts
- Project bill of materials listing the materials to be used
- Floor construction and flooring documents
- A broom-clean, approved slab within the construction tolerances according to DIN 18202 (see appendix 2).
- Accurate benchmarks as reference points for the appropriate screed thickness
- Information on traffic loads, fire protection measures and impact noise behaviour
- The assembly area must be free of rubble and foreign materials
- The area must be well protected against weather and moisture
- Minimum installation depth and floor care of units must be specified

Screed work

Ducts and their accessories are components that only gain their full load-bearing capacity for their intended use once they are firmly bonded to the screed.

The following points are essential to ensure successful installation:

- The duct system must be sealed before applying the screed
- The system elements must be firmly anchored to the slab
- The installed duct system must not be walked on or otherwise subjected to stress
- Loads can only be applied to the duct system once the screed has hardened and the area must be cordoned off while curing.
- Screed deformations and shrinkages must be taken into account in advance
- Screed types and minimum screed thickness must be complied with according to DIN 185602 (see appendix 1). This specifies a screed thickness of at least 40 mm over the duct for office and work areas with a surface load of up to 2 kN/m²
- For higher loads, correspondingly thicker screeds must be applied in accordance with DIN 18560
- The duct system itself has been loaded and tested with a point load of 750 N in accordance with the standard
- When using self-levelling screeds, all standard openings <7 mm must be professionally masked off

Duct system application

The underfloor system must comply with the requirements of DIN EN 50085. The duct system must be installed on the slab according to the assembly instructions and in compliance with the technical information.

Including the duct system in protective measures

- All metallic parts of the entire duct system must be included in the protective measures
- According to the VDE, all conductive parts of the duct system must be included in the equipotential bonding arrangement. This is done at the transition points of the components by welding, riveting, making a firm pressure connection using screw connectors or using flexible earthing conductors.
- The electrical duct system must not be used as an equipotential bonding conductor
- The duct system must be included in the equipotential bonding arrangement of the entire system during the electrical installation work
- When laid over expansion joints, care must be taken to ensure that connections between the components are flexible
- Wichmann box

Floor coverings

When selecting flooring materials, consider that underfloor installation systems are subject to the effects of live loads and must be classified by means of test loads of 500 N to 15,000 N in accordance with DIN EN 50085.

Sufficiently thick, self-supporting layers of exposed concrete, synthetic resin and poured asphalt coverings, as well as tiles or natural stone, prevent subsequent cracking of the covering under changing dynamic loads. Even slight deflections can damage thin, hard floor coverings, such as tiles. Thick floor coverings, such as granite flags, increase the load capacity of the underfloor system, resulting in better load distribution.

Dynamic deflections of up to 6 mm and permanent deformations of up to 3 mm are permitted.

Flatness specifications for finished floors must be complied with according to DIN 18202 tab. 3 line 3.

Appendix 1: Excerpt from DIN 18560-2:2009-09

Table 1 - Nominal thicknesses and flexural tensile strength or hardness of unheated screeds on insulation layers for vertical live loads $\leq 2 \text{ kN/m}^2$

Screed type	Bending strength class or hardness class according to DIN EN 13813	Nominal screed thickness ^a with compressibility of the insulation layer ^{c,d} $\leq 5 \text{ mm}^b$ mm	Confirmation test of flexural strength $\beta\text{BZ N/mm}^2$		Penetration depth mm	
			Smallest single value	Average value	At $22 \pm 1^\circ\text{C}$	At $40 \pm 1^\circ\text{C}$
Calcium sulphate self-levelling screed (CAF)	F4	≥ 35	≥ 3.5	≥ 4.0	-	-
	F5	≥ 35	≥ 4.5	≥ 5.0	-	-
	F7	≥ 35	≥ 6.5	≥ 7.0	-	-
Calcium sulphate screed (CA)	F4	≥ 45	≥ 2.0	≥ 2.5	-	-
	F5	≥ 40	≥ 2.5	≥ 3.5	-	-
	F7	≥ 35	≥ 3.5	≥ 4.5	-	-
Poured asphalt	IC10	≥ 25	-	-	≤ 1.0	≤ 4.0
	ICH 10	≥ 35	-	-	≤ 1.0	≤ 2.0
Synthetic resin screed	F7	≥ 35	≥ 4.5	≥ 5.5	-	-
Magnesium screed MA	F4	≥ 45	≥ 2.0	≥ 2.5	-	-
	F5	≥ 40	≥ 2.5	≥ 3.5	-	-
	F7	≥ 35	≥ 3.5	≥ 4.5	-	-
Cement screed CT	F4	≥ 45	≥ 2.0	≥ 2.5	-	-
	F5	≥ 40	≥ 2.5	≥ 3.5	-	-

^{a)} For insulation layers $\leq 40 \text{ mm}$, the screed thickness can be reduced by 5 mm for calcium sulphate, synthetic resin, magnesium and cement screeds. The minimum thickness must not be less than 30 mm (except poured asphalt).

^{b)} For poured asphalt screeds, the compressibility of the insulation layers must not exceed 3 mm.

^{c)} The surface hardness of xylolite screeds must be at least SH 30 according to DIN EN 13813.

^{d)} For higher compressibility ($\leq 10 \text{ mm}$), the nominal screed thickness must be increased by 5 mm.

Appendix 2: Excerpt from DIN 18202

Table 3 – Flatness tolerances

Column		1	2	3	4	5	6
Row	Reference	Depth gauges as limit values in mm for test point spacings in m					
		0.1 ¹⁾	1 ¹⁾	4 ¹⁾	10 ¹⁾	15 ^{1) 2)}	
1	Non-surface-finished topsides of ceilings, concrete subbases and subfloors	10	15	20	25	30	
2	Non-surface-finished topsides of ceilings, concrete subbases and subfloors with more stringent requirements, e.g. to accommodate floating screeds, industrial floors, tiles and flags, composite screeds; fully finished surfaces for simple purposes, e.g. in store-rooms, cellars	5	8	12	15	20	
3	Surface-finished floors, e.g. plain screeds, screeds for receiving floor coverings; floor coverings, tiled coverings, trowelled and bonded coverings	2	4	10	12	15	
4	As row 3, but with more stringent requirements	1	3	9	12	15	
5	Non-surface-finished walls and undersides of slabs	5	10	15	25	30	
6	Surface-finished walls and undersides of ceilings, e.g. plastered walls, wall coverings, suspended ceilings	3	5	10	20	25	
7	As row 6, but with more stringent requirements	2	3	8	15	20	

¹⁾ Values for these test point spacings are contained in table 3 of DIN 18202. Values for other spacings have been interpolated

²⁾ The flatness tolerances in column 6 also apply to test point spacings over 15 m.

Impact noise behaviour

Sound insulation when using underfloor duct systems

The requirements for sound insulation in buildings are regulated by DIN 4109. The aim is to minimise noise pollution. The best way to achieve this is to acoustically decouple the slab, the duct system and the screed by using isolation layers. Floating screeds can also be used to acoustically isolate the floor. Otherwise, structure-borne sound excitation is transmitted directly via the slab. In this case, footfall noise can only be reduced by installing soft, elastic floor coverings.

Measurement procedure for underfloor duct systems

The impact sound behaviour of the screed-flush and screed-covered systems is measured between two rooms positioned one above the other with structure-borne flank transmission. Measurements are conducted in a footfall sound test facility according to DIN 52210-2 or DIN EN ISO 10140 and the tests themselves comply with DIN EN ISO 140-7 or DIN EN ISO 16283-2.

A standard tapping machine is used as a sound source in the transmitter room. The noise is generated by tapping both on the screed and directly on the duct or unit.

We work exclusively with testing laboratories that comply with DIN EN ISO/IEC 17025.

The received levels are determined using a real-time analyser and rotating microphone. The standard impact sound level $L'_{n,w}$ is calculated as the characteristic value of the component being assessed taking into account the volume and the reverberation time.

The impact sound reduction ΔL_w is calculated as the difference between the standard impact sound level of a ceiling with and without floor coverings. The impact sound reduction must be effective enough to ensure that the maximum standard impact sound level stipulated for office buildings is not exceeded. The standard impact sound level values required in office buildings are defined as follows:

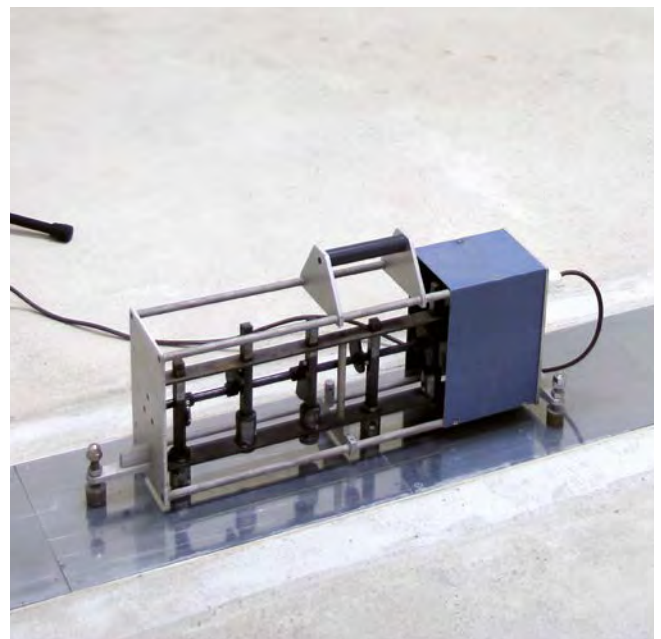


Normal impact sound level requirements

$$L'_{n,w} \leq 53 \text{ dB (DIN 4109)}$$

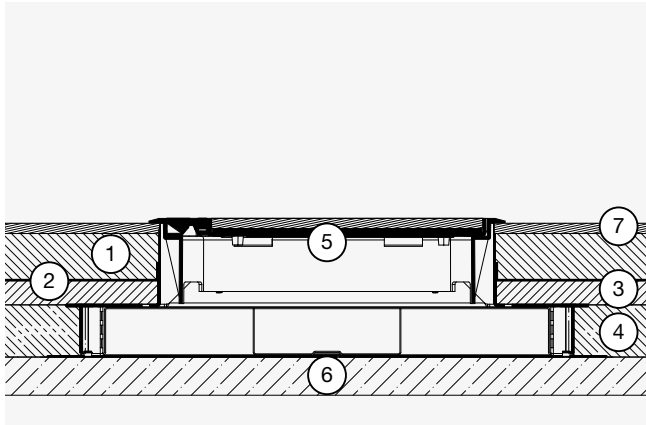
More stringent impact sound level requirements (recommendations)

$$L'_{n,w} \leq 46 \text{ dB (DIN 4109)}$$



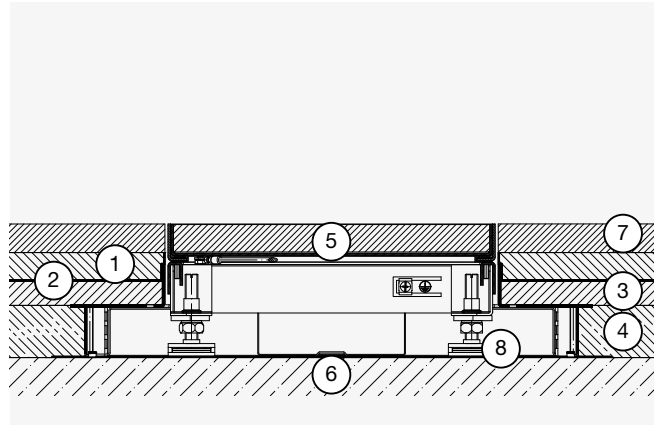
Test

UKL duct, UBDHB350 V hollow floor box with UEK3 V plastic hinged cover unit, angular



1: 50-mm cement screed | 2: 1-mm membrane | 3: 20-mm impact sound insulation panel | 4: 40-mm thermal insulation panel | 5: Unit | 6: 160-mm slab | 7: Floor covering (carpet: 8.0 mm, parquet: 12.0 mm) | 8: UGM rubber bushing

UKL duct, UBDHB350 V hollow floor box with UEKD V E stainless steel hinged cover unit, angular, mounted on UNE levelling unit



Test setup	ΔL_w dB	$L'_{n,w}$ dB
Duct system installed in floating screed, sound excitation on screed	29	52
Duct system installed in floating screed, sound excitation on screed with textile floor covering	40	41
Duct system installed in floating screed, sound excitation on unit with textile floor covering	46	35

Measured values from test report 13-840 dated March 2014
 $L'_{n,w} = 81$ dB sound excitation on slab
 $L'_{n,w} = 50$ dB sound excitation on screed without installations

Test setup	ΔL_w dB	$L'_{n,w}$ dB
Duct system installed in floating screed, sound excitation on stainless steel unit with parquet	28	53
Duct system installed in floating screed, sound excitation on stainless steel unit with parquet flooring, decoupled by rubber bushing	31	50

Measured values from test report 13-840 dated March 2014
 $L'_{n,w} = 81$ dB sound excitation on slab
 $L'_{n,w} = 50$ dB sound excitation on screed without installations

Results

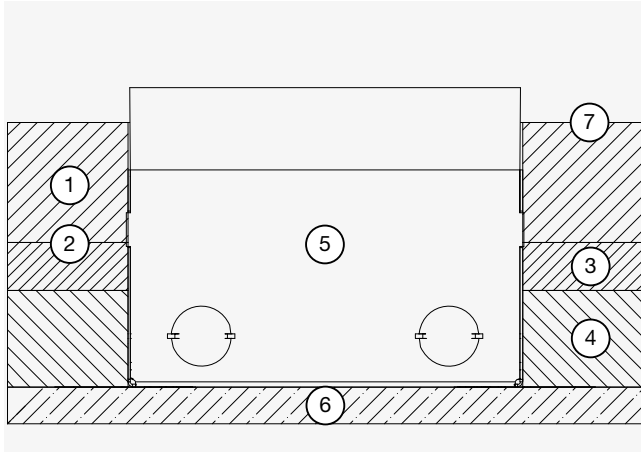
The measurement results show that the screed-covered underfloor system meets the normal sound insulation requirement of 53 dB for ceilings in office buildings in all application-specific tests. Underfloor systems can be installed in the floating screed of a ceiling without any problems related to impact sound behaviour.

If carpeting or parquet flooring is installed, it is irrelevant whether acoustic excitation takes place on the screed or directly on the unit. The levelling system of the slab can be

additionally decoupled using rubber bushings. This improves the impact noise behaviour by up to 3 dB compared with installing the levelling system directly on the slab. The advantage of the new hollow floor box is that it is completely mechanically decoupled from the duct system. This is particularly evident when using parquet, stone, poured asphalt coverings or exposed concrete.

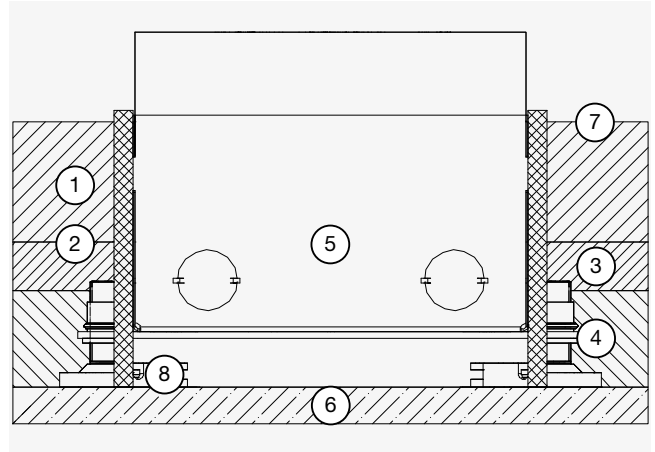
Test

Stainless steel, hinged cover, compact single outlet UKE160, angular



1: 50-mm cement screed | 2: 2-mm membrane | 3: 20-mm impact sound insulation panel | 4: 40-mm thermal insulation panel | 5: Compact single outlet | 6: 140-mm slab | 7: Floor covering (carpet: 6.0 mm, laminate: 8.0 mm) | 8: UGM-SLF rubber bushing

Stainless steel, hinged cover, compact single outlet UKE160, angular, mounted on UKENP 160 levelling board



Test setup	ΔL_w dB	$L_{n,w}^*$ dB
Compact single outlet installed in floating screed, sound excitation on screed without decoupling	21	56
Compact single outlet installed in floating screed, sound excitation on screed with textile floor covering/ laminate	26	51

Measured values from test report 17-106-1 dated May 2017
 $L_{n,w}^* = 77$ dB sound excitation on slab
 $L_{n,w}^* = 51$ dB sound excitation on screed without compact single outlet

Test setup	ΔL_w dB	$L_{n,w}^*$ dB
Compact single outlet installed in floating screed, completely decoupled with rubber bushing, sound excitation on screed with textile floor covering/ laminate	30	47

Measured values from test report 17-106-1 dated May 2017
 $L_{n,w}^* = 77$ dB sound excitation on slab
 $L_{n,w}^* = 51$ dB sound excitation on screed without compact single outlet

Results

The measurement results show that the compact single outlets meet the of normal sound insulation requirement of 53 dB for ceilings in office buildings in all application-specific tests. Hence, underfloor systems can be installed in the floating screed of a ceiling without any problems related to impact sound behaviour.

If carpeting or parquet flooring is installed, it is irrelevant whether acoustic excitation takes place on the screed or directly on the unit.

Floor care

General standard requirements

For underfloor electrical installation duct systems, protection class testing is regulated by EN 60529 and the type of floor care is regulated by DIN EN 50085. All PUK underfloor units are tested by the VDE and their protection classes defined during these tests. VDE tests and the resulting certificates / classifications enable the customer to compare products across Europe according to defined safety values.

The IP protection class describes the protection provided by the enclosure, such as protection against contact or ingress of moisture and protection of the installation against ingress of foreign bodies.

All duct systems and installation units must at least comply with protection class IP 20 both when in use and when not in use. In addition to the declaration of protection class, all cable exit openings must be at least 10 mm above the floor surface when in use if the floor is wet-cleaned.

The various floor care application areas correspond to the definitions used by the building cleaning trade. The protection class is stated in accordance with the IP rating.

Cleaning methods

Dry-cleaning

Definition: Floor cleaning and / or maintenance methods using liquid-free or low-liquid processes to prevent liquid pooling on or soaking the floor coverings.

Wet-cleaning

Definition: Floor cleaning and / or maintenance methods using liquid cleaning and care agents in which liquid pooling on or soaking the floor coverings for short periods cannot be ruled out.

Machine and industrial cleaning

Definition: Professional cleaning process using floor cleaning machines. The floor coverings are not only cleaned with liquid, they are also exposed to loads and vacuum.

Building cleaners' standard

Damp mopping

Definition: Mopping to bind dust in a single pass using cleaning textiles dampened with water or cleaning agents to remove loose, fine dirt and, to a lesser extent, coarse dirt.

Objective / result: Surface is free from coarse dirt and fine dirt that has collected on it.

Comments / Notes: Only smooth floor coverings should be cleaned using the damp mopping method.

Wet mopping

Definition: Manual wet cleaning using cleaning textiles to remove adherent dirt and stains.

Objective / result: Surface is free of dust, coarse dirt, adhering dirt.

Wet mopping, single pass

Definition: The floor covering is cleaned in one step using cleaning textiles that are wrung out well or still slightly wet. Liquid left on the surface by this process is left to dry naturally.

Wet mopping, double pass

Definition: This two-pass variant is the classic wet-mopping method. In the first step, a cleaning textile is used to apply a large amount of cleaning fluid to the surface to soften and detach any adhering water-soluble dirt. In the second step, the excess dirty water is wiped away using the cleaning textile.

* Excerpt from the types of cleaning as defined in the building cleaning standards.

Protection class

Protection class testing

All PUK underfloor units are tested and certified by the VDE (German Association for Electrical, Electronic & Information Technologies). The test specimens are subjected to a specific test procedure depending on the desired rating.

The amount of water, intensity (pressure), angle and duration differ depending on the protection class for which the specimen is being tested. During the classification process, manufacturers specify a desired protection class, which is

then tested for during the procedure.

No water may penetrate the test specimen in any appreciable quantity during the test.

The interior of the test specimen is inspected after the test. The manufacturer is informed of the IP protection rating as part of the classification process.

BODO IP data

Protection classes provided by the building or enclosure:

BODO T / BODO TL

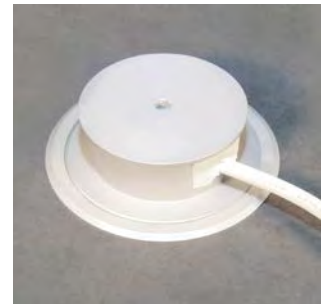
IP20: In use
IP30: Not in use

BODO N / BODO NL

IP22: In use
IP43: When used with rubber bushing
IP66: Not in use



IP_n – not in use








IP_g – in use

Product declarations

The data sheet shows the system's protection class both when the units are in use and when not in use.

The products are subject to the labelling obligation according to DIN EN 50085 and must be marked with the corresponding pictograms.

	UEBDM 15-V-WD		
	Wet-cleaned floors <i>nassgepflegte Böden</i>		Cable crushing possible <i>Kabelquetschungen möglich</i>

Technical notes

All PUK units are marked as follows in accordance with DIN EN:



Dry-cleaning

Floor cleaning and / or maintenance method using liquid-free or low-liquid processes to prevent liquid pooling on or soaking the floor coverings.



Wet cleaning

Floor cleaning and / or maintenance method using liquid cleaning and care agents in which liquid pooling on or soaking the floor coverings for short periods cannot be ruled out.



Data sheets

The protection classes when not in use / in use and the application range of the floor care are specified for all units of the PUK system in the data sheets in accordance with the classified tests according to DIN EN 50085. It distinguishes between rooms whose floors are cared for using dry, damp and wet cleaning methods. The various floor care application areas correspond to the definitions used by the building cleaning trade. The protection class is stated in accordance with the IP rating.

Application notes

The underfloor system is not suitable for outdoor use in accordance with DIN EN 50085.



Care instructions

We recommend that all sealing components of the units are cleaned and maintained at regular intervals to guarantee compliance with the protection class.

We recommend cleaning with water, surfactants and sponges or soft cloths.

Solvent-based cleaners, thinners, acetone, chlorinated hydrocarbons, acids, alkalis, strongly alkaline cleaners or scouring agents and aggressive cleaning agents in general must not be used.



Dry-care

According to the IP protection classes specified in the data sheets, the units guarantee protection against contact and ingress of water in accordance with the requirements of DIN EN 50085.

DIN EN 50085 presupposes a minimum requirement of IP 20. The units are therefore suitable for carpeted floors and have no protection against water ingress. Improper floor care can damage the unit and electrical installation. Regular cleaning is recommended to safeguard both the appearance and proper function of the unit.



Wet care

According to the IP protection classes specified in the data sheets, the stainless steel units guarantee protection against contact and ingress of water in accordance with the requirements of DIN EN 50085. Driving over and simultaneously cleaning the units is not covered by this standard.

The VDE examines load-capacity testing and protection rating testing separately. No provision is made for a combination of both. A double load of this kind caused by the weight of and pressurised water from the cleaning machine applied to one side of the units is not covered by the regulations. Dirt particles and cleaning fluids can be washed into the interior of the unit due to the high volume and pressure of the cleaning water. The aforementioned floor care methods may cause damage to and deterioration of the rubber seals. We recommend that all sealing components of the units are cleaned and maintained regularly to guarantee compliance with the protection class.



Machine cleaning units

Driving over and simultaneously cleaning the installation units is not covered by DIN EN 50085. Load-bearing capacity and protection class are assessed separately in the test procedures. No provision is made for a combination of both. A double load of this kind caused by the weight of and pressurised water from the cleaning machine applied to one side of the units is not covered by the regulations. Dirt particles and cleaning fluids can be washed into the interior of the unit due to the high volume and pressure of the cleaning water. This application is typical when using cleaning machines but can be withstood by our new machine cleaning units. Both the units and the sealing components require regular inspection, cleaning and care.

Protection class details according to classification

Code letter: International protection (IP)

First code digit: Protection against ingress of solid objects		Second code digit: Protection against ingress of water	
0	No protection against contact or ingress of objects	0	No protection against ingress of water
1	Protection against large-area contact with hands, protection against ingress of objects dia. ≥ 50 mm	1	Protection against dripping water, droplets falling vertically
2	Protection against contact with fingers, protection against objects dia. ≥ 12.5 mm	2	Protection against dripping water at any angle up to 15° from the vertical
3	Protection against contact with tools, wires or similar dia. ≥ 2.5 mm, protection against ingress of objects dia. ≥ 2.5 mm	3	Protection against sprayed water from any angle up to 60° from the vertical
4	Protection against contact with tools, wires or similar dia. ≥ 1 mm, protection against ingress of objects dia. ≥ 1 mm Protection against sprayed water from any direction	4	Protection against sprayed water from any direction
5	Protection against contact, protection against ingress of dust	5	Protection against water jets from any angle
6	Complete protection against contact, protection against ingress of dust	6	Protection against strong water jets from any angle
		7	Protection against ingress of water in case of temporary immersion
		8	Protection against ingress of water in case of continuous immersion

Information based on DIN EN 60529, IEC 60529



Notes

- Select units that suit the intended usage.
- Tiles can technically be used in cassettes with cable outlets. However, as tiled floors suggest the possibility of wet cleaning, manufacturers recommend using tube solutions in tiled floors.
- Generally speaking, the weak point of an underfloor system is always the interaction of the different assembly groups, or rather a lack of communication and understanding of how the parts affect each other. The weakest points in a system are often the joints.
- We recommend that you avoid positioning the units in joints. The possibility of water seeping into the installation space via joints cannot be ruled out.



Units for dry-cleaned floors (IP20/30)

Plastic units

UEBD2 R
UEKD2 R
UEB3 R
UEK3 R
UEBD2 V
UEKD2 V
UEB3 V
UEK3 V

Stainless steel cassettes

UEBDD R E
UEKDD R E
UEBDD RP E
UEKDD RP E
UEKDD2 V E
UEKDD V E
UEKDD VP E
UEBDD1-2 V E
UEBDD2 V E
UEBDD V E

Stainless steel units

UEKD R E
UEKDS R E
UEKD RP E
UEKD2 R E
UEKD V E
UEKDS V E
UEKD VP E
UEKD2 V E

Single outlets

BODO T
BODO TL
UEKD1-1 V E
UEKD1-2 V E
UKE125 V
UKE160 V
UKEF 160 V
UKE 185 V
UKE 260V



Units for dry-cleaned floors (IP20/40)

Cleaning sockets

UBSK V E



Units for wet-cleaned floors (IP 20/54)

Cleaning sockets

UBSK VP E



Units for wet-cleaned floors (IP 22/54)

Stainless steel units

UEBD R E
UEBDS R E
UEBD RP E
UEBDM R WD
UEBDSM R WD
UEBDM RP WD
UEBD2 R E
UEBDM2 R WD

UEBD V E
UEBDS V E
UEBD VP E
UEBDM V WD
UEBDSM V WD
UEBDM VP WD
UEBDSM VP WD
UEBD2 V E

Single outlets

UEBD1 V E
UEBD1-2 V E
UEBDSM1-2 V WD
UKE125 VP WD
UKE160 VP WD



Units for wet-cleaned floors (IP 43/66)

Single outlets

BODO N
BODO N3
BODO N4

Cleaning sockets

UBST R WD

Cassette units, machine cleaning

UEBD R MR
UEBDM R MR

Load-bearing capacity of the systems

Heavy load testing according to standard DIN EN 50085

The European standard DIN EN 50085-2-2 specifies a uniform test procedure for underfloor, heavy-duty installation systems for loads up to 15 kN:

- Central axial force applied by a circular steel plate with a diameter of 130 mm
- During the test, the system being tested must have a maximum dynamic deflection of 6 mm
- After the test, the system being tested may have a maximum permanent deformation of 3 mm

Heavy-duty systems are tested and certified according to DIN EN 50085. As the DIN EN 50085 standard only covers loads up to 15 kN, an in-house test rig was set up at the Berlin plant. This allows us to conduct realistic and application-oriented tests of the load limits of heavy-duty installation systems up to 40 kN.

The type and thickness of the floor covering has a significant effect on the load-bearing capacity. The thicker the floor covering, the lower the risk of cracking. Therefore, the covers of our heavy-duty units have a minimum floor covering depth of 16 mm. Flat round / angular versions are available as an alternative.

Testing the load capacity

All components and applications can be tested on the test rig in line with DIN EN 50085. When testing the products in line with their applications and with or without floor coverings, dynamic and static deformation values of the test specimen are recorded using computer software and logged in the form of a diagram and a manufacturer's certificate.

Sufficiently thick, self-supporting layers of exposed concrete, synthetic resin and poured asphalt coverings, as well as natural stone, prevent subsequent cracking of the covering under changing dynamic loads.

Even slight deflections can damage thin, hard floor coverings, such as tiles. Thick floor coverings, such as granite flags, increase the load capacity of the underfloor installation system, resulting in better load distribution.



Test setup on the factory's own test rig at the Berlin site.

It is both necessary and helpful from the user's point of view to specify a load of up to 20 kN as a reference value. As this option is not currently covered by the DIN EN 50085 standard, we specify a factory-tested maximum load of 20 kN.

We always conduct an additional test on a factory test rig to ensure the greatest possible safety when using our heavy-duty systems in various applications.

This defines individual, practical maximum limit values for the various load classes.

Upon request, we would be happy to test your chosen floor covering in combination with our underfloor systems.

Installation depths

General requirements

For underfloor electrical installation duct systems, the thickness of the floor structure essentially determines the space available to install the unit, mounting box and installation device.

It must be possible to close the cover or the cassette when in use to meet the minimum requirements of protection class IP 20 according to DIN EN 50085. These factors are used to calculate the minimum installation height required for the system when using angled and straight plugs for data or power technology.

Technical notes

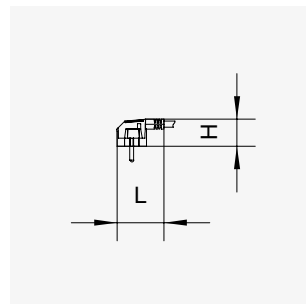
The minimum installation depths determined by us refer to the minimum dimensions of commercially available plugs for power technology indicated in the figures.

The installed mounting boxes or device supports can be lowered in steps by up to 30 mm by using snap-in ladders in the corresponding plastic units. This presupposes that sufficient space is available under the unit and is not blocked by power cables or data technology cables.

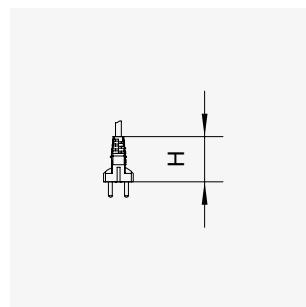
Height of cassette units UEBD(S) / UEKD(S) / UEBD(S)M

Cassette	Frame height	
	Round	Angular
15-V/R	18 mm / 21 mm	19 mm
25-V/R	28 mm	29 mm
35-V/R	38 mm	39 mm
45-V/R	-	49 mm

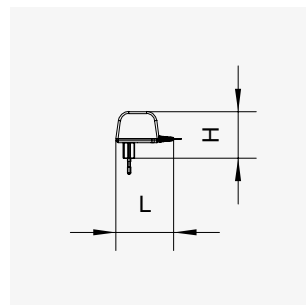
Minimum installation depths of system components



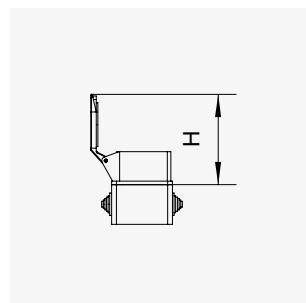
Angled plug
 Height = 33 mm
 Length = 58 mm



Straight plug
 Height = 55 mm



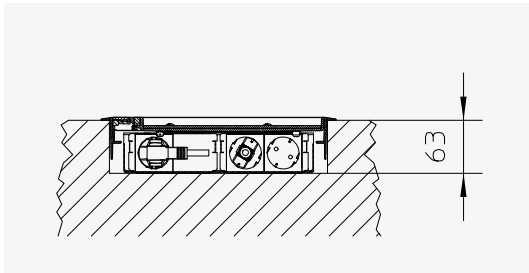
Mains adaptor
 Height = 58 mm
 Length = 71 mm



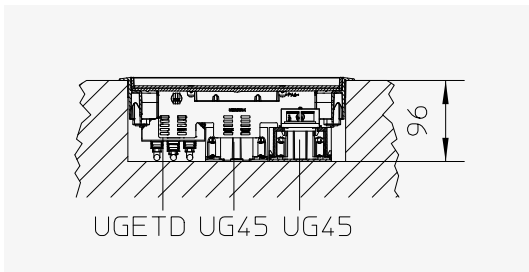
CEE socket
 Height = 112 mm

UEKD2/UEK3 plastic units

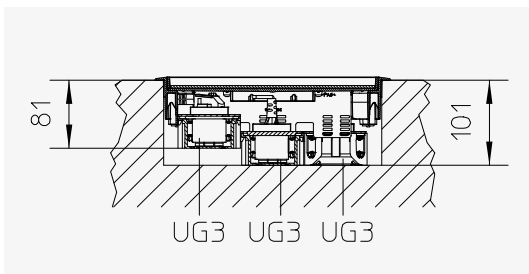
The floor covering depth in the covers of plastic units refers to carpet coverings up to 10 mm thick. The minimum installation depths shown refer to angular and round plastic units. When using the UAMF-4-1 226 cover plate, there is an additional height of 5 mm between the mounting box and the cover of the unit.



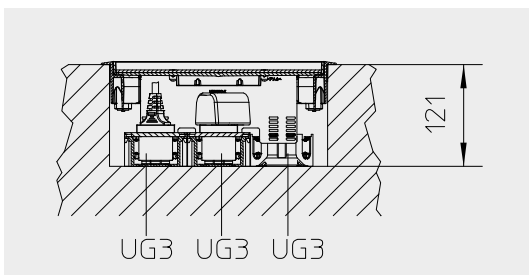
- UEK3 | Plastic hinged cover unit, triple, round
- UGE3 VRK 4 | Mounting box insert
- UGEE 1 UST S | Device panel
- UGEE 2 UST S | Device panel
- UST45 2 | Socket, double
- UST45 1 | Socket, single
- Angled plug
- Straight plug



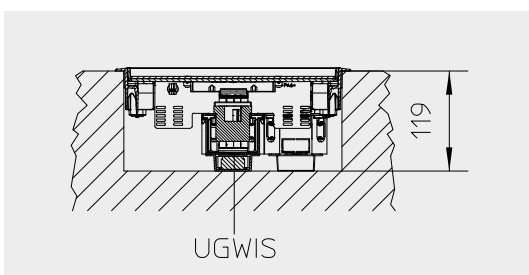
- UEK3 | Plastic hinged cover unit, triple, round
- UGEA3 | Snap-in ladder set for plastic unit, triple (UGE3-50-S)
- UG45 | Mounting box
- UGETD | Device carrier
- UA B 226 | Cover plate
- UDAP45 KS | Data cover
- UDEP RMSC 3 | Installation board
- UDAEUM | Data connection module



- UEK3 | Plastic hinged cover unit, triple, round
- UGEA3 | Snap-in ladder set for plastic unit, triple (UGE3-50-S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Angled plug
- Mains adapter



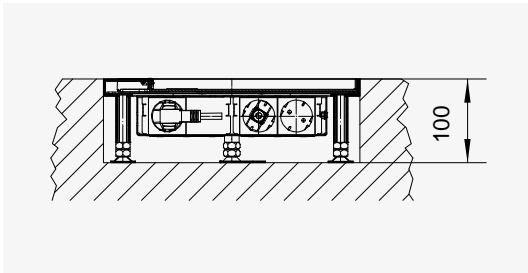
- UEK3 | Plastic hinged cover unit, triple, round
- UGEA3 | Snap-in ladder set for plastic unit, triple (UGE3-80-S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Straight plug
- Mains adaptor



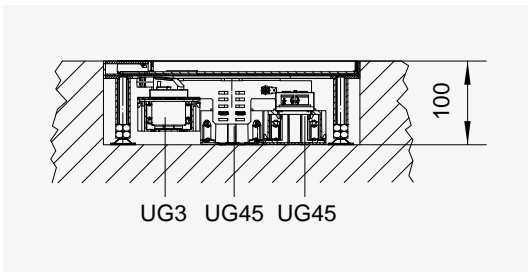
- UEK3 | Plastic hinged cover unit, triple, round
- UGEA3 | Snap-in ladder set for plastic unit, triple (UGE3-50-S)
- UGWISFILS | Mounting box with RCCB switch

Stainless steel units, round

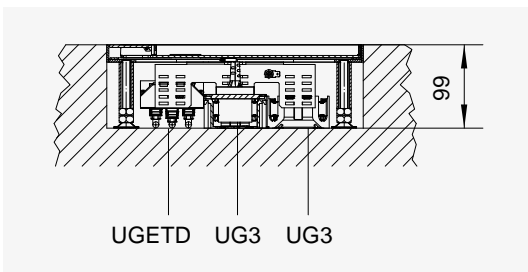
The information on the installation depths given below presumes stainless steel cassettes with a frame height of 21 mm. This results in a floor covering that is 12 mm thick on the cover.



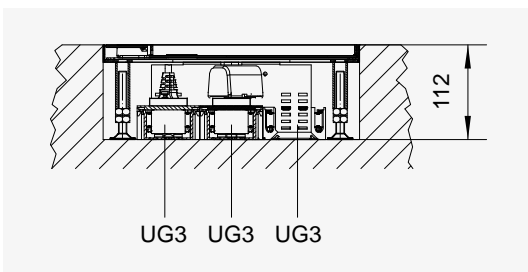
- UEKD RE | Stainless steel hinged cover unit, triple, round
- UGE3 RE 4 | Mounting box insert
- UGEE 1 UST S | Device panel
- UGEE 2 UST S | Device panel
- UST45 2 | Socket, double
- UST45 1 | Socket, single
- Angled plug
- Straight plug



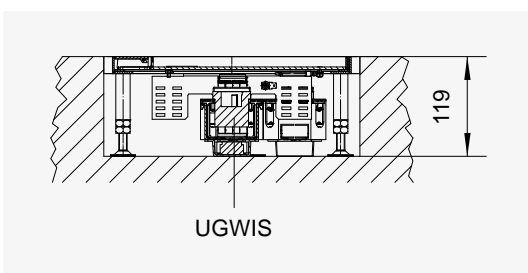
- UEKD RE | Stainless steel hinged cover unit, triple, round
- UGEAR | Snap-in ladder set for stainless steel unit, triple, round (UGEAR-50S)
- UG45 | Mounting box
- UG3 | Mounting box
- UA B 226 | Cover plate
- UDAP45 KS | Data cover
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Angled plug



- UEKD RE | Stainless steel hinged cover unit, triple, round
- UGEAR | Snap-in ladder set for stainless steel unit, triple, round (UGEAR-50S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UGETD | Device carrier
- UDEP RMSC 3 | Installation board
- UDAEUM | Data connection module
- UST45 2 | Socket, double
- Mains adaptor



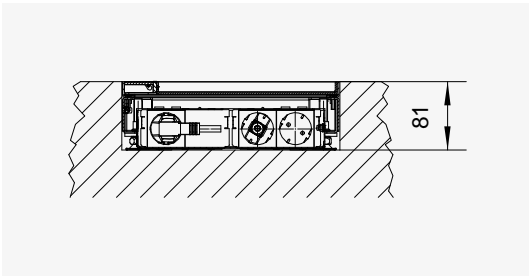
- UEKD RE | Stainless steel hinged cover unit, triple, round
- UGEAR | Snap-in ladder set for stainless steel unit, triple, round (UGEAR-80S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Straight plug
- Mains adaptor



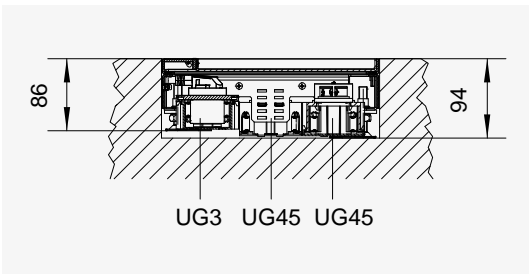
- UEKD RE | Stainless steel hinged cover unit, triple, round
- UGEAR | Snap-in ladder set for stainless steel unit, triple, round (UGEAR-50S)
- UGWIS-FILS | Mounting box RCCB switch

Stainless steel units, angular

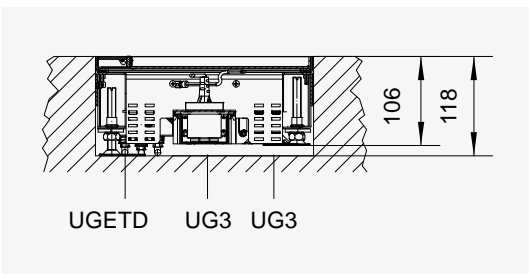
The information on the installation depths given below presumes stainless steel cassettes with a frame height of 19 mm. This results in a floor covering that is 12 mm thick on the cover. Please note the particular levelling unit used.



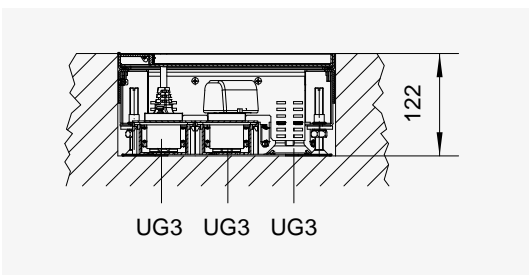
- UEKD VE | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-30S)
- UGE3 VE 4 | Mounting box insert
- UGEE 1 UST S | Device panel
- UGEE 2 UST S | Device panel
- UST45 2 | Socket, double
- UST45 1 | Socket, single
- Angled plug
- Straight plug



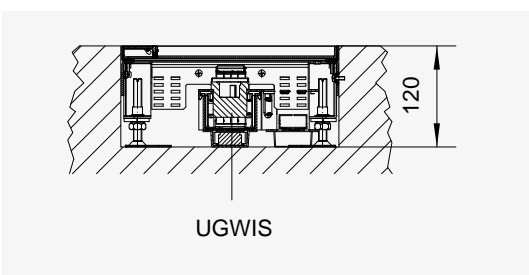
- UEKD VE | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-30S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-50S)
- UG45 | Mounting box
- UG3 | Mounting box
- UA B 226 | Cover plate
- UDAP45 KS | Data cover
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Angled plug



- UEKD VE | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-60S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-80S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UGETD | Device carrier
- UDEP RMSC 3 | Installation board
- UDAEUM | Data connection module
- UST45 2 | Socket, double
- Mains adaptor



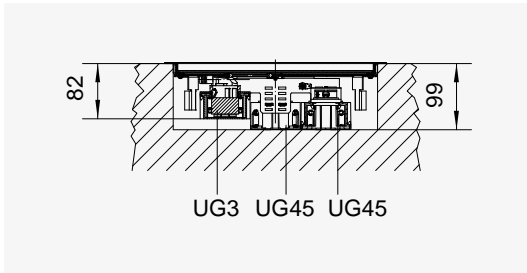
- UEKD VE | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-60S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-80S)
- UG3 | Mounting box
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Straight plug
- Mains adaptor



- UEKD VE | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-60S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-50S)
- UGWIS-FILS | Mounting box RCCB switch

Stainless steel cassettes, round

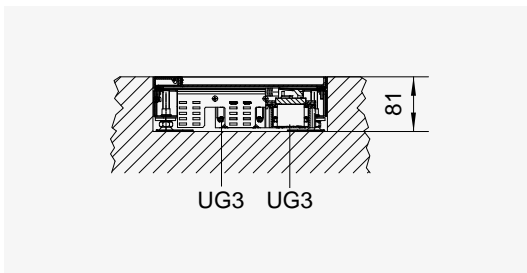
The information on the installation depths given below presumes stainless steel cassettes with a frame height of 19 mm. This results in a floor covering that is 12 mm thick on the cover. When using the UAMF-4-1 226 cover plate, there is an additional height of 8 mm between the mounting box and the cover of the unit.



- UEKDD R E | Stainless steel hinged cover cartridge, triple, round
- UG45 | Mounting box
- UG3 | Mounting box
- UA B 226 | Cover plate
- UDAP45 KS | Data cover
- UAM 2 | Cover plate
- UST45 2 | Socket, double
- Angled plug

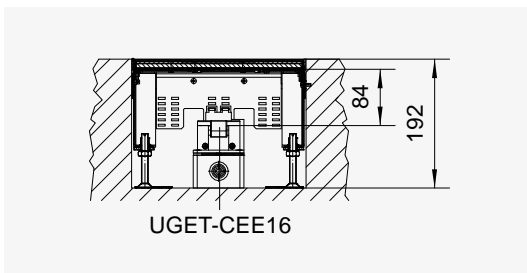
Special applications

The information on the installation depths given below presumes stainless steel cassettes with a frame height of 19 mm. This results in a floor covering that is 12 mm thick on the cover. When using the UAMF-4-1 226 cover plate, there is an additional height of 5 mm between the mounting box and the cover of the unit. Using the UG mounting box results in an installation height of 89 mm.



UAMF cover plate

- UEKD V E | Stainless steel hinged cover unit, triple, angular
- UNE | Levelling unit (UNE 260V-30S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-50S)
- UG3 | Mounting box
- UAM 4 | Cover plate (UAMF-4-1 266)
- UST45 2 | Socket, double
- Angled plug

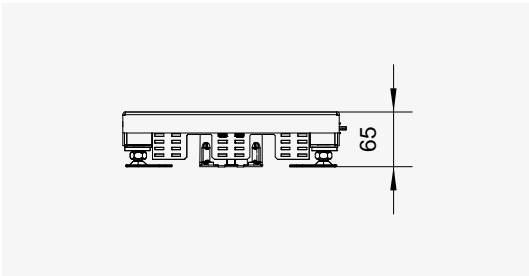


Device carrier with CEE socket 16 A

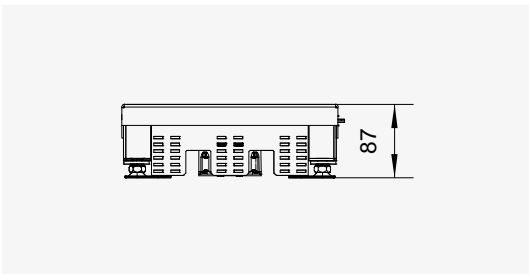
- UEBDM VP WD | Tube cassette unit
- UNE | Levelling unit (UNE 260V-100S)
- UGEAV | Snap-in ladder set for stainless steel unit, triple, angular (UGEAV-80S)
- UGET CEE | Device carrier with CEE socket

Levelling units

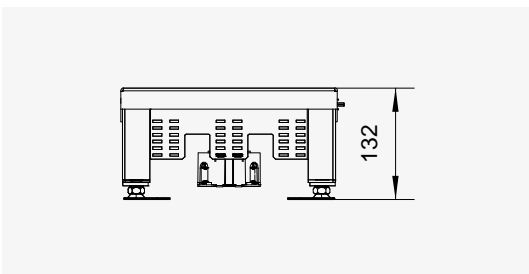
Applications of various levelling units are shown here. Please note that the overall height varies depending on the cassette used (see Technical notes, "Height of cassette units" tables). This section only considers the height of the levelling unit.



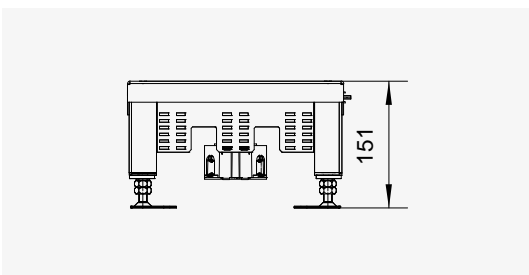
- UNE | Levelling unit (UNE 260V-30S)
- UG3 | Mounting box



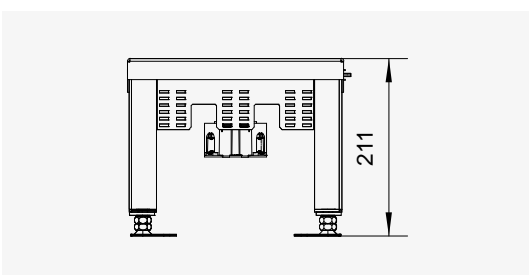
- UNE | Levelling unit (UNE 260V-60S)
- UG3 | Mounting box



- UNE | Levelling unit (UNE 260V-100S)
- UG3 | Mounting box



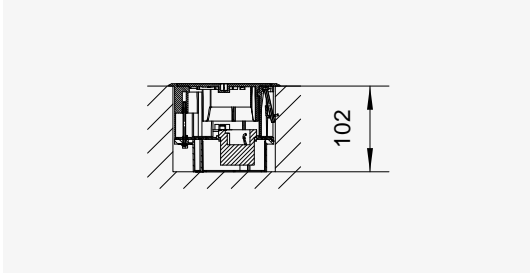
- UNE | Levelling unit (UNE 260V-155S)
- UG3 | Mounting box



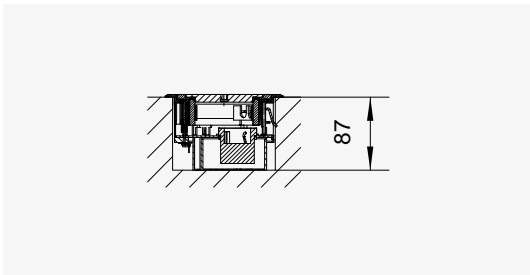
- UNE | Levelling unit (UNE 260V-210S)
- UG3 | Mounting box

BODO single outlet

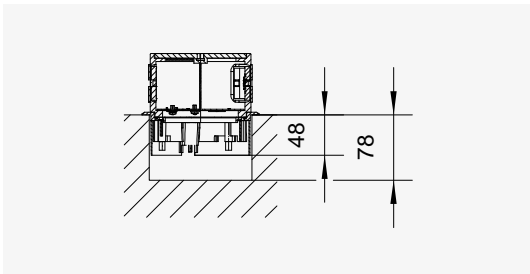
These images show the installation depths of the BODO product group. The structural height of the **BODO T** is 23 mm, **BODO N** is 37 mm and the **BODO NAT** is 70 mm.



- BODO T | Single outlet with floor socket, dry-cleaned



- BODO N | Single outlet with floor socket, wet-cleaned



- BODO NA | Cable outlet, dummy (BODO NA-L)
- BODO NAT | On-floor tube outlet (BODO NAT-L)

Fire protection

General information

The fire behaviour of building materials and components is regulated by DIN 4102-9. Part 9 regulates fire testing of cable penetration insulation.

DIN 4102 does not stipulate fire resistance properties. These are stipulated in the building regulations of the German federal states and in other directives, such as industrial construction guidelines.

If a fire resistance rating is prescribed for a wall, cables may only be routed through it if there is no risk of fire propagation for a sufficiently long time or precautions have been taken against this. With regard to the use of electrical installation duct systems, this means that if fire protection walls are crossed, they must then be sealed against fire and flue gas.

Model conduit systems directive (MLAR)

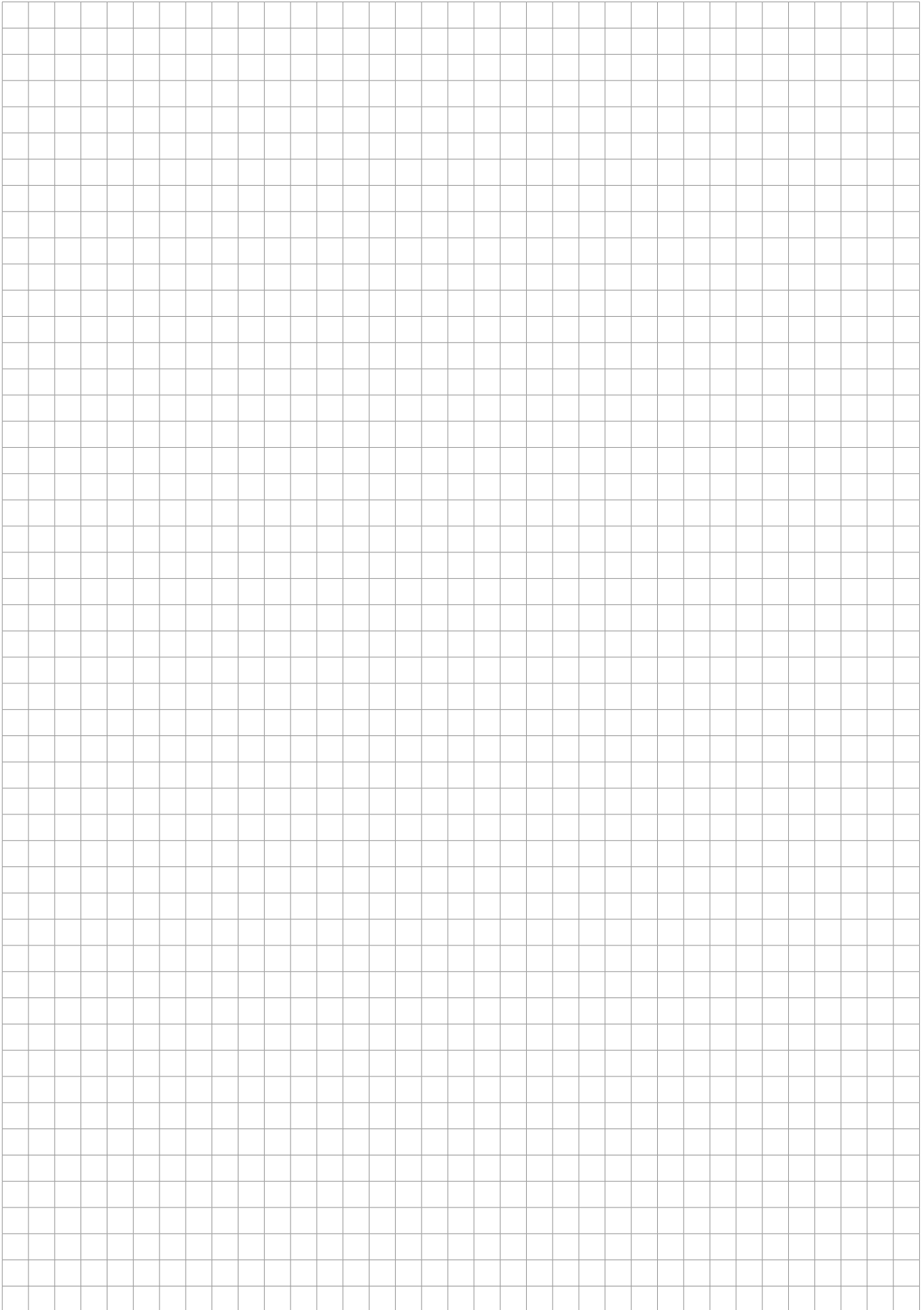
Point 3.5.6 of the MLAR guidelines on fire protection behaviour states the following: "Underfloor ducts flush with or covered by screed for the installation of cables must have a top cover of non-combustible building materials in necessary stairwells, in rooms between necessary stairwells and exits to the outside and into necessary corridors. They shall have no openings, except for inspection openings or revision openings in necessary corridors with tightly sealed closures made of non-combustible building materials."

It is vital that screed floors have at least 30 mm of screed above underfloor ducts.



System requirements

- Test standard: DIN 4102-9
- Fire resistance class: S90
- Approval: Z-19.15-202





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