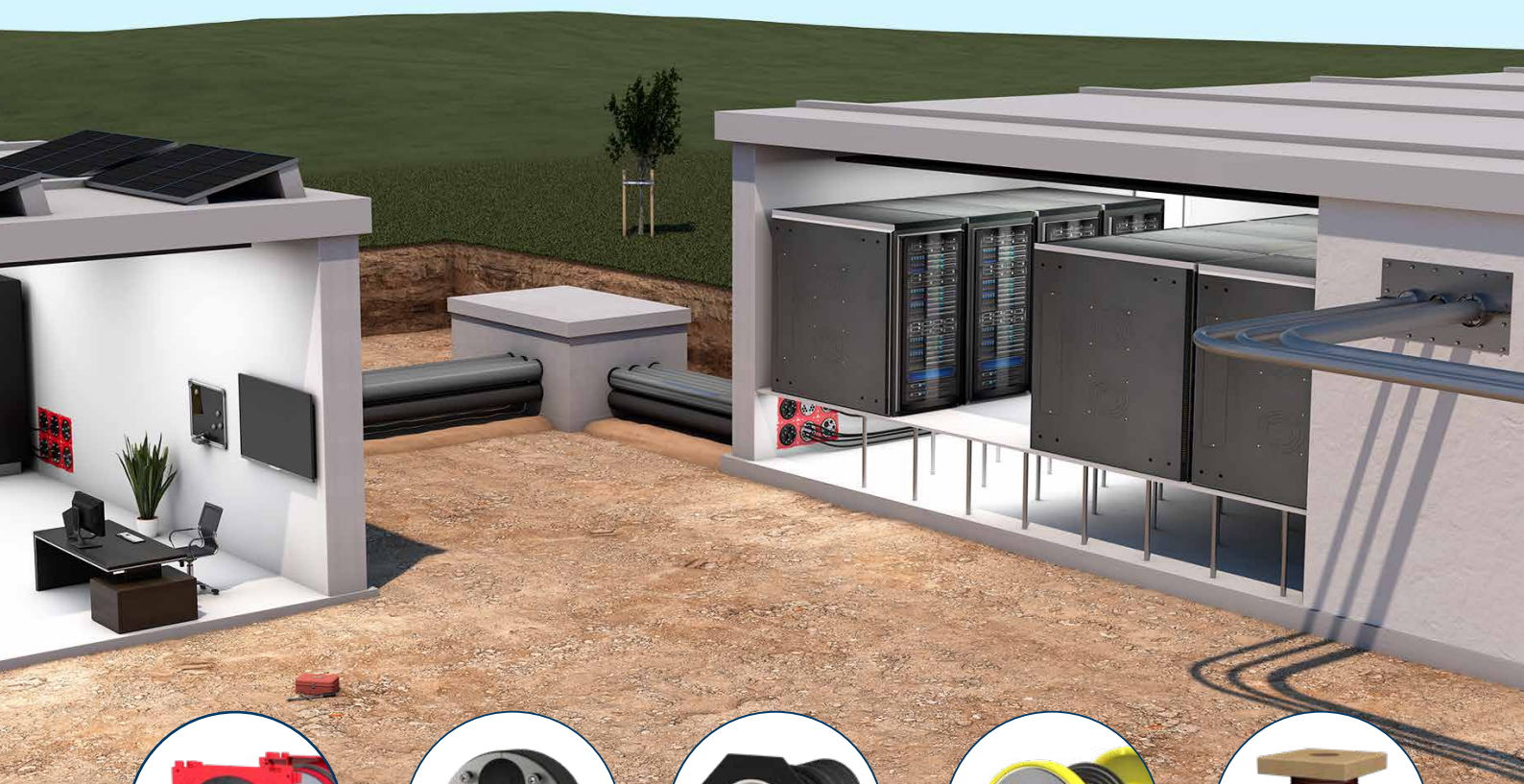


# Catalogue International



Cable entries, Wall sleeves, Press seals, Wastewater entries, Extra, Single building entries, Building services outlets and Infrastructure



## The efficient solution builders.

We are one of Europe's leading manufacturers of sealing systems for cables, pipes and building entries.

Our innovative sealing systems protect your building from penetrating water, gas, fire, dirt and vermin. Our custom solutions guarantee you absolute leak tightness, economic efficiency, user friendliness and durability in all kinds of construction work. From detached houses to various construction services through to large infrastructure projects such as airports and power stations.

We offer them all the right solution to meet their unique challenges – either from our comprehensive product range or custom-built.

## Symbols

In a world with an increasing number of standards and regulations to comply with, we would like to simplify your product selection process by using symbols. This allows you to see whether the product is suitable for your application.



### **This product is radon proof.**

In Europe the Directive for protection against the dangers arising from ionising radiation (COUNCIL DIRECTIVE 2013/59/EURATOM OF 5 DECEMBER 2013), obliges the member states to ensure that appropriate measures are in place to prevent radon ingress into new buildings.

The statutory reference value in workplaces and dwellings is 300 Bq/m<sup>3</sup>. Many of our Hauff products have already been tested for radon tightness.



### **This product has been awarded the „FHRK Quality“ seal in accordance with the FHRK testing guidelines.**

Given the huge number of suppliers and manufacturers of sealing solutions, it is easy to quickly feel overwhelmed.

What seals will meet my needs?

Do they meet quality standards?

And what do these standards look like anyway?

Because up to now there have been no standards or guidelines for pipe and cable seals.

The Fachverband für Rohre und Kabel e.V. (Association for House Entries for Cables and Pipes) has addressed precisely this topic and come up with uniform standards. The result is comprehensive and uniform testing guidelines devised in cooperation with expert representatives and the manufacturing industry. This synergy effect has made it possible to cover all needs and requirements for sealing solutions. What does this mean for you? Quite simply, greater safety, higher quality and better comparability for products that you can trust in.



### **This product contains regranulate.**

In order to make our product world more sustainable, we are focussing on recycled plastic and thus taking an important step towards a closed material cycle and the conservation of resources. Despite the switch to regranulates, we can still guarantee our high quality standards, identical functionality and the durability of our products.

# Content

## 01 Cable entries

### Cable entry system HSI150

- Wall inserts
  - Single wall inserts..... 6 – 9
  - External duct connection..... 10 – 14
  - Double wall inserts..... 15 – 23
- Polymer flange..... 24 – 25
- System covers and system seals..... 26 – 43
- Cable duct system KES
  - Inserts..... 44 – 45
  - Polymer spiral duct..... 46
  - Adaptation..... 47 – 50
  - Cable seals..... 51 – 54
- Accessories ..... 55 – 57

### Cable entry system HSI90

- Wall inserts
  - Single wall inserts..... 58 – 60
  - External duct connection..... 61
  - Double wall inserts..... 62 – 64
- Polymer flange..... 65
- System covers and system seals..... 66 – 72
- Cable duct system KES
  - Inserts..... 73 – 74
  - Polymer spiral duct..... 75
  - Adaptation..... 76 – 79
  - Cable seals..... 80 – 81
- Accessories ..... 82 – 83

## 02 Wall sleeves

- Inserts and flanges / new construction
  - Wall sleeves ..... 86 – 96
- Inserts and flanges / retrofit installation
  - Inserts..... 97 – 99
  - Flanges..... 100 – 101

## 03 Press seals

- For cables
  - Standard..... 104 – 109
  - Custom..... 110 – 115
- For pipes..... 116 – 141

## 04 Pipe entries

- Wastewater entries
  - Floor..... 144 – 147
  - Wall entry ..... 148 – 152
- Compensating pipe seal..... 153

## 05 Extra

- Earthings
  - Earthing entries..... 156 – 164
  - Earthing fixed points..... 165 – 166
- Accessories ..... 167 – 170
- Roof entries ..... 171 – 172
- HFM foil sleeves..... 173 – 175
- Fire protection ..... 176 – 179

## 06 Building entries

- Resin injection system ..... 182 – 191
  - Accessories ..... 192
  - Through the floor slab..... 193

## 07 Building services outlets

- Building packages
  - Floor version ..... 196 – 197
  - Wall version ..... 198 – 199
  - Garden distribution ..... 200 – 202
- Accessories ..... 203

## 08 Infrastructure

- EV Charging ..... 206 – 207
- Street Lighting ..... 208 – 209



# 01 Cable entry system HSI150/HSI90

The HSI cable entry system impresses thanks to its modular design.

The system is available in two sizes with a nominal diameter of 150 or 90 mm and sets the standard for cable entries for installations flush with the formwork in concrete walls. Here, the wall insert HSI150/HSI90 offers maximum flexibility during retrofit use and is fitted with a pressure-tight closing cover ex works.

A variety of system seals are available for sealing cables – in closed or split versions, depending on the requirements – and for pressure-tight duct connections.

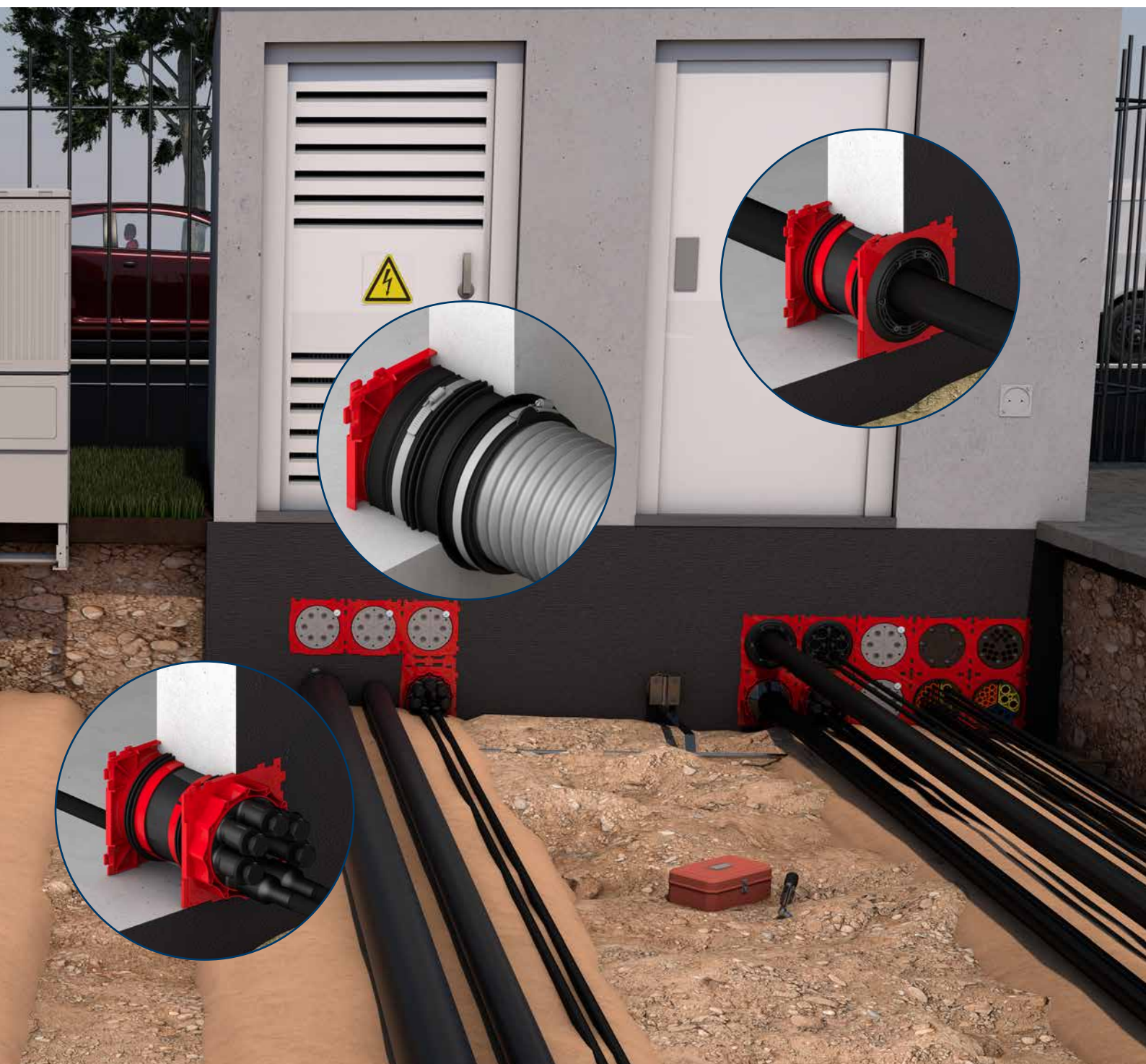
Hauff-Technik also offers the KES150/KES90 pressure-tight cable duct system, which is compatible with the HSI150/HSI90 system and features a Hateflex duct as well as various options for cable sealing. This system can be relied upon to provide optimum protection for the cables that are being laid.



## Cable duct system KES150/KES90

Over the course of its life, a building frequently gets renovated or refurbished. In most cases, however, these activities only take place in the parts of the building located above ground level. Nonetheless, the requirements for the cable infrastructure in a building can also change significantly over time. This is precisely where it is recommendable during construction of a building to provide for reserve openings and lay a durable empty conduit route via which lines can be replaced or new lines laid without having to dig up the entire conduit route.

For this purpose, Hauff-Technik offers the KES150/KES90 pressure-tight cable duct system, which is compatible with the HSI150/HSI90 system and features a Hateflex duct as well as various options for cable sealing. This system can be relied upon to provide optimum protection for the cables that are being laid



# Single wall insert

for setting in concrete

## HSI150 K/X

For the gas-tight and watertight connection on one side of system seals for cables or cable ducts, providing high flexibility for future use.



### USP

- Double security with closing cover and blind plate for wall thicknesses from 70 to 150 mm
- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 1 piece pressure-tight closing cover

### Dimensions

- Frame dimensions: 220x 220 mm
- Centre to centre distance: 210 mm
- Minimum wall thickness: 70 mm

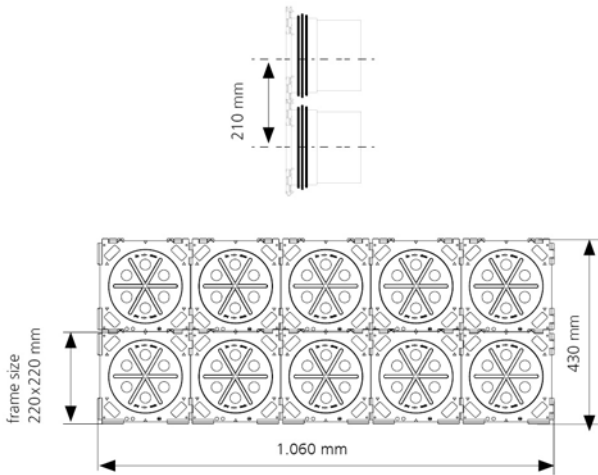
### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



Wall thickness (mm)	Article code	Article number	GTIN
100	<b>HSI150 1x1 K/100</b>	3030303428	4052487223164
120	<b>HSI150 1x1 K/120</b>	3030303363	4052487222938
150	<b>HSI150 1x1 K/150</b>	3030303361	4052487222921
200	<b>HSI150 1x1 K/200</b>	3030303430	4052487223171
250	<b>HSI150 1x1 K/250</b>	3030303434	4052487223195

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.  
The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



Order example as package 2x5 for wall thickness 200 mm. Order code: HSI150 2x5 K/200 (single seal pack) or HSI150 2x5 K2/200 (double seal pack)



# Slanted single wall insert

for setting in concrete

## HSI150 1xZ K S<sub>°</sub>/X

For slanted cable entries Allows an optimal bending radius for feeding and sealing cables or connecting cable ducts.



### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

- Mounting frame
- 1 piece pressure-tight closing cover

### Dimensions

- Centre to centre distance: 210 mm

### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



### Scope of delivery

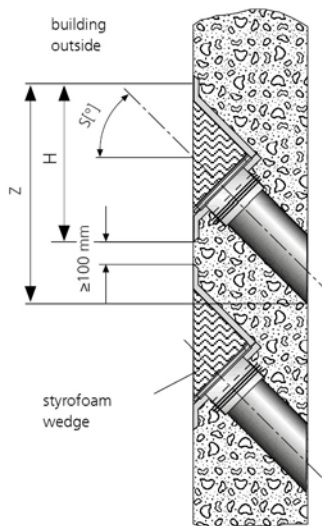
- 1 piece polystyrene wedge

Installation angle	Minimum wall thickness (mm)	Article code
30 °	180	<b>HSI150 1xZ K S30°/X<sup>1)</sup></b>
45 °	210	<b>HSI150 1xZ K S45°/X<sup>1)</sup></b>

<sup>1)</sup> Article number and GTIN on request

Z = number of columns (1-6), X = wall thickness (mm, 180-230)

Minimum concrete cover thickness of 200 mm according to WU-Richtlinie (Merkblatt H10) is only achieved with wall inserts HSI150 K S30° at a minimum wall thickness of 350 mm (S45° - 400 mm).



section 2x HSI150 1xZ K S45°/X single wall insert

# Single wall insert with flange

for setting in concrete

## HSI150 1xZ K AF/X

For the gas-tight and watertight connection on one side of system seals for cables or cable ducts, providing high flexibility for future use.



Cable entries

### USP

- flange for easy application of polymer-modified bitumen thick coatings
- Tested solution for use with pre-applied waterproofing membrane
- 1x1 or 1x4 package arrangement
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 1 piece pressure-tight closing cover


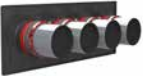
### Dimensions

- Frame dimensions 1x1 package configuration: 340 x 340 mm
- Frame dimensions 1x4 package configuration: 970 x 340 mm
- Minimum wall thickness: 100 mm

### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



Figure	Minimum wall thickness (mm)	Article code
	100	<b>HSI150 1x1 K AF/X</b>
	100	<b>HSI150 1x4 K AF/X</b>

X = wall thickness (mm)

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.

The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



# Single wall insert with foldable rubber sleeve

for setting in concrete and connecting cable ducts



## HSI150 KMA

For the direct connection of cable ducts (exterior) and for connecting system seals for cables (interior).

### USP

- thanks to the folding sleeve technique, no additional pipe connection components are needed
- elastic and firmly supported connection due to increased insertion depth, even with deflection of the cable duct
- Installation of cable seals on the inside possible

### Scope of delivery

- 1 piece pressure-tight system cover HSI150 DTS

- 1 piece blind cover
- 2 pieces of HSI150 AH40 spacer
- 1 piece of clamping strap
- When connecting corrugated cable ducts, clip rings must be ordered separately. When ordering, please specify duct type and manufacturer.

### Dimensions

- Frame dimensions: 220x 220 mm
- Centre distance with spacer: 250 mm

### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



Pipe OD	Wall thickness (mm)	Article code	Article number	GTIN
114-127	120	<b>HSI150 1X1 KMA127/120</b>	3030614045	4052487250610
114-127	140	<b>HSI150 1x1 KMA127/140</b>	3030642651	4052487250627
114-127	150	<b>HSI150 1X1 KMA127/150</b>	3030618654	4052487250634
114-127	200	<b>HSI150 1X1 KMA127/200</b>	3030642690	4052487250641
114-127	250	<b>HSI150 1X1 KMA127/250</b>	3030642699	4052487250658
114-127	300	<b>HSI150 1X1 KMA127/300</b>	3030642701	4052487250665
114-127	350	<b>HSI150 1x1 KMA127/350</b>	3030643077	4052487250672
114-127	400	<b>HSI150 1X1 KMA127/400</b>	3030642702	4052487250689
114-127	450	<b>HSI150 1X1 KMA127/450</b>	3030643066	4052487250696
114-127	500	<b>HSI150 1x1 KMA127/500</b>	3030643076	4052487250702
160-172	120	<b>HSI150 1X1 KMA172/120</b>	3030476250	4052487242103
160-172	140	<b>HSI150 1x1 KMA172/140</b>	3030477593	4052487242127
160-172	150	<b>HSI150 1x1 KMA172/150</b>	3030477595	4052487242134
160-172	200	<b>HSI150 1X1 KMA172/200</b>	3030476251	4052487242110
160-172	250	<b>HSI150 1x1 KMA172/250</b>	3030477597	4052487242141
160-172	300	<b>HSI150 1x1 KMA172/300</b>	3030477598	4052487242158
160-172	350	<b>HSI150 1x1 KMA172/350</b>	3030477599	4052487242165
160-172	400	<b>HSI150 1x1 KMA172/400</b>	3030477600	4052487242172
160-172	450	<b>HSI150 1x1 KMA172/450</b>	3030477601	4052487242189
160-172	500	<b>HSI150 1x1 KMA172/500</b>	3030477602	4052487242196

Other wall thicknesses available on request.



HSI150 KMA, single sealing packing with hinged rubber sleeve, Hateflex connection



HSI150 KMA, single seal packing with hinged rubber sleeve

# Single wall insert with plug-in socket

for setting in concrete and connecting smooth cable ducts



## HSI150 GSM

For the one-sided connection of system seals for cables (inside) and for connecting cable ducts (outside).

### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- available from wall thickness of 120 mm (GSM 110 and GSM 125)
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 1 piece pressure-tight closing cover




### Dimensions

- Frame dimensions: 220x 220 mm
- Centre distance: 210 mm, spacer increases centre distance to 250 mm

### Tightness

- gastight and watertight to 0.5 bar
- radon-proof



Figure	Minimum wall thickness (mm)	Article code
	120	<b>HSI150 1x1 GSM110/X<sup>1)</sup></b>
	120	<b>HSI150 1x1 GSM125/X<sup>1)</sup></b>
	160	<b>HSI150 1x1 GSM160/X<sup>1)</sup></b>

<sup>1)</sup> Restrictions regarding number and size of cables may apply

X = wall thickness (mm)

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.

The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



# Single wall insert with plug-in socket

adjustable length, for setting in concrete and connecting smooth cable ducts



## HSI150 GSM Varia

For the one-sided connection of system seals for cables (inside) and for connecting cable ducts (outside).

### USP

- stepless adjustment to the required wall thickness on site
- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 1 piece pressure-tight closing cover
- 1 hex key with integrated torque limiter

### Dimensions

- Minimum wall thickness OD 110, 125mm: 200 mm
- Minimum wall thickness OD 160mm: 260 mm
- Centre distance: 210 mm, spacer increases centre distance to 250 mm
- Frame dimensions: 220x 220 mm

### Tightness

- gastight and watertight to 0.5 bar
- radon-proof



Figure	Pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	110	200-260	<b>HSI150 1x1 GSM110 Varia 200-260</b>	2120206120	4052487153577
		260-365	<b>HSI150 1x1 GSM110 Varia 260-365</b>	2120206126	4052487153584
		365-470	<b>HSI150 1x1 GSM110 Varia 365-470</b>	2120206136	4052487153591
		470-575	<b>HSI150 1x1 GSM110 Varia 470-575</b>	2120206147	4052487153607

Figure	Pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	125	200-260	<b>HSI150 1x1 GSM125 Varia 200-260</b>	2120206220	4052487153614
		260-365	<b>HSI150 1x1 GSM125 Varia 260-365</b>	2120206226	4052487153621
		365-470	<b>HSI150 1x1 GSM125 Varia 365-470</b>	2120206236	4052487153638
		470-575	<b>HSI150 1x1 GSM125 Varia 470-575</b>	2120206247	4052487153645

Figure	Pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	160	260-320	<b>HSI150 1x1 GSM160 Varia 260-320<sup>1)</sup></b>	2120206326	4052487153652
		320-425	<b>HSI150 1x1 GSM160 Varia 320-425<sup>1)</sup></b>	2120206332	4052487153669
		425-530	<b>HSI150 1x1 GSM160 Varia 425-530<sup>1)</sup></b>	2120206342	4052487153676
		530-565	<b>HSI150 1x1 GSM160 Varia 530-635<sup>1)</sup></b>	2120206353	4052487153683

<sup>1)</sup> block assembly only in conjunction with spacer

Including hex key for adjusting the installation length.

When installing packages of HSI150 wall insert, we recommend the use of spacer HSI AH40 for increasing the axial spacing. In case of GSM160 it is mandatory to use the spacer.



HSI150 GSM Varia applied as a block

### Accessories

Figure	Item	Article code	Article number	GTIN
	Spacer	<b>HSI AH40 SET2</b>	3030300093	4052487220156

# Double wall insert

for setting in concrete

## HSI150 K2/X

For the gas-tight and watertight connection on both sides of system seals for cables or cable ducts, providing high flexibility for future use.



Cable entries

### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 2 pieces of pressure-tight closing covers

### Dimensions

- Frame dimensions: 220x 220 mm (per wall insert)
- Centre to centre distance: 210 mm
- Minimum wall thickness: 100 mm

### Tightness

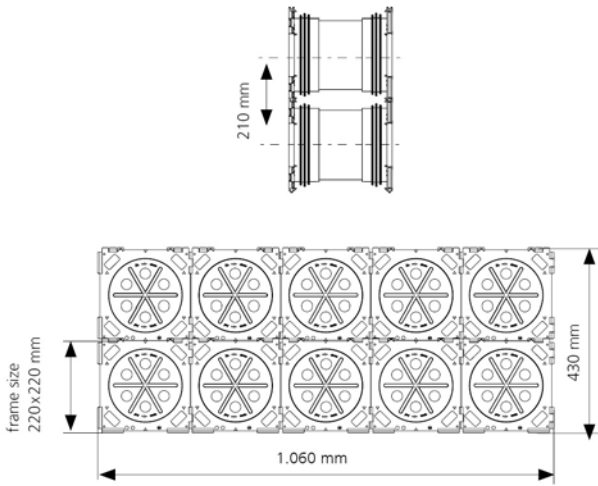
- gastight and watertight to 2.5 bar
- radon-proof



Wall thickness (mm)	Article code	Article number	GTIN
120	<b>HSI150 1x1 K2/120</b>	3030304232	4052487243933
150	<b>HSI150 1x1 K2/150</b>	3030303369	4052487210799
200	<b>HSI150 1x1 K2/200</b>	3030303353	4052487222907
250	<b>HSI150 1x1 K2/250</b>	3030303394	4052487222952
300	<b>HSI150 1x1 K2/300</b>	3030303178	4052487222846

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.

The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)

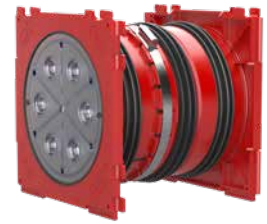


# Double wall insert

adjustable length, for setting in concrete

## HSI150 K2 Varia

For the gas-tight and watertight connection on both sides of system seals for cables or cable ducts, providing high flexibility for future use.



### USP

- stepless adjustment to the required wall thickness on site
- pressure-tightness to concrete using three injection molded 3-ribbed seals
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 2 pieces of pressure-tight closing covers

- 1 hex key with integrated torque limiter

### Dimensions

- Frame dimensions: 220x 220 mm
- Centre to centre distance: 210 mm
- Minimum wall thickness: 200 mm

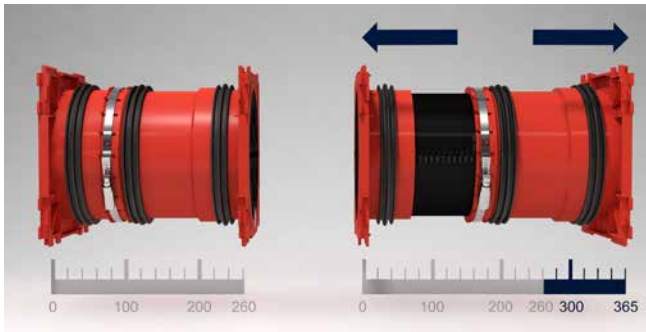
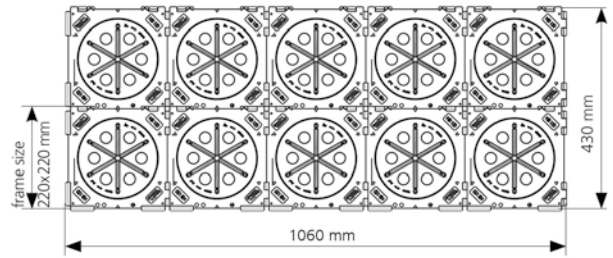
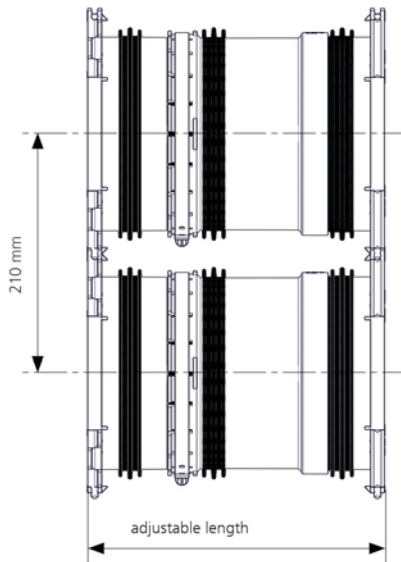
### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



Wall thickness (mm)	Article code	Packing unit	Article number	GTIN
200-260	<b>HSI150 1x1 K2 Varia 200-260</b>	1	3030300084	4052487135009
260-365	<b>HSI150 1x1 K2 Varia 260-365</b>	1	3030300085	4052487134231
365-470	<b>HSI150 1x1 K2 Varia 365-470</b>	1	3030300086	4052487140430
470-575	<b>HSI150 1x1 K2 Varia 470-575</b>	1	3030300087	4052487140454

Including hex key for adjusting the installation length.



continuously adjustable to the required wall thickness, example HSI150 1x1 K2 Varia 260-365

### Accessories

Figure	Item	Article code	Article number	GTIN
	Spacer	<b>HSI AH40 SET2</b>	3030300093	4052487220156

# Double slanted wall insert

for setting in concrete

## HSI150 1xZ K2 S<sub>°</sub>/X

For slanted cable entries Allows an optimal bending radius for feeding and sealing cables or connecting cable ducts.



Cable entries

### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 2 pieces of polystyrene wedges

- Mounting frame
- 2 pieces of pressure-tight closing covers

### Dimensions

- Frame dimensions: 220x 220 mm
- Centre to centre distance: 210 mm

### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



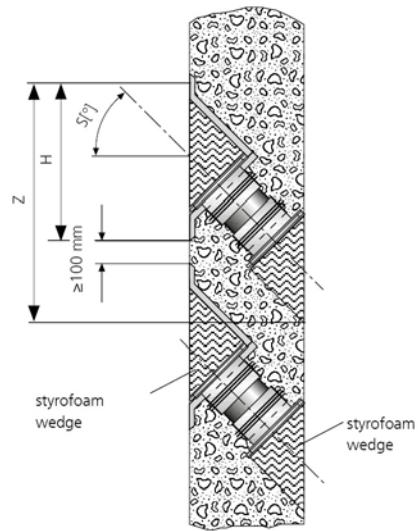
### Double slanted wall insert

Figure	Installation angle	Minimum wall thickness (mm)	Article code
	30 °	240	<b>HSI150 1xZ K2 S30°/X<sup>1)</sup></b>
	45 °	250	<b>HSI150 1xZ K2 S45°/X<sup>1)</sup></b>
	60 °	300	<b>HSI150 1xZ K2 S60°/X<sup>1)</sup></b>

<sup>1)</sup> Article number and GTIN on request

Z = number of columns (1-6), X = wall thickness (mm, 180-230)

Minimum concrete cover of 200 mm as per WU guideline (Merkblatt H10) is achieved with inclined seal pack HSI150 K2 S30° only from a wall thickness of 342 mm (S45° - 385 mm, S60° - 420 mm).



section 2x HSI150 1xZ K2 S45°/X double wall insert



# Double wall insert with flange

for setting in concrete

## HSI150 1xZ K2 AF/X

For the gastight and watertight connection on both sides of system seals for cables or cable ducts, providing high flexibility for future use.



Cable entries

### USP

- flange for easy application of polymer-modified bitumen thick coatings
- Tested solution for use with pre-applied waterproofing membrane
- 1x1 or 1x4 package arrangement
- factory-sealed with quality label - for control against accidental or unauthorized opening of the closing cover

### Scope of delivery

- 2 pieces of pressure-tight closing covers



### Dimensions

- Frame dimensions 1x1 package configuration: 340 x 340 mm
- Frame dimensions 1x4 package configuration: 970 x 340 mm
- Minimum wall thickness 140 mm

### Tightness

- gastight and watertight to 2.5 bar
- radon-proof

Figure	Article code
	<b>HSI150 1x1 K2 AF/X</b>
	<b>HSI150 1x4 K2 AF/X</b>

X = wall thickness (mm)

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.

The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



# Double wall insert

for setting in concrete, for black tank with fixed/loose flange



## HSI150 FLFE/X DIN18533 W2-E

For cable entries or the connection of cable ducts in buildings with waterproof sheeting or approved plastic-modified thick coatings (PMBC). A transition from the building seal to the entry is achieved with the fixed/loose flange construction. Sealing is performed according to DIN 18533 (black tank).

### USP

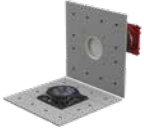


- factory-sealed with quality label  
- for control against accidental or unauthorized opening of the closing cover

### Dimensions

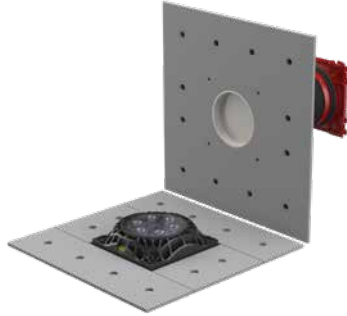
- 555 x 555 mm, for package configuration each additional entry + 250 mm

### Tightness

- gastight and watertight

Figure	Configuration	Article code
	Y, Z, X = individuell	<b>HSI150 YxZ FLFE/X<sup>1)</sup></b>
	Y = 1, Z = 1, X = individuell	<b>HSI150 1x1 FLFE/X<sup>1)</sup></b>
	Y = 1, Z = 2, X = individuell	<b>HSI150 1x2 FLFE/X<sup>1)</sup></b>
	Y = 1, Z = 3, X = individuell	<b>HSI150 1x3 FLFE/X<sup>1)</sup></b>

<sup>1)</sup> Individual order designation: Available on request as a package with several feedthroughs next to and on top of each other. The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)  
Y = number of rows (1-10), z = number of columns (1-10), X = wall thickness (mm, 200-500)



double wall insert HSI150 1x1 FLFE/X (front view). Fixed/loose flange for setting in concrete with sealing flange for connecting system seal.



concreted fixed flange of the double wall insert HSI150 2x2 FLFE/X

# Polymer flange

for retrofit installation

## HSI150 DFK

For retrofit bolting to concrete walls or for screwing onto steel housings. Used for the gastight and watertight connection of system seals for cables and cable ducts.



### USP

- with integrated spirit level
- Tested solution for use with pre-applied waterproofing membrane

### Scope of delivery

- 1 piece surface seal, 6 mm thick
- Fixing elements including sealing ring

### Dimensions

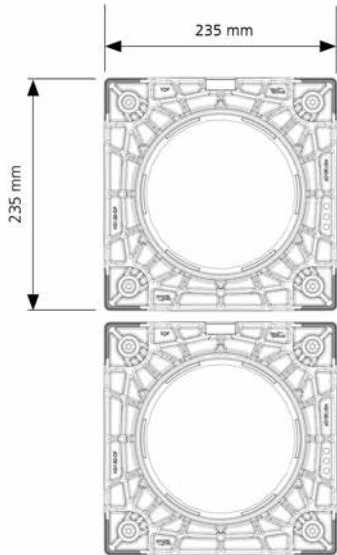
- Length x width: 235 x 235 mm
- Recommended centre distance for core drills: 250 mm
- Core drills max. Ø: 150 mm
- Structure in front of wall including surface seal: 63 mm

### Tightness

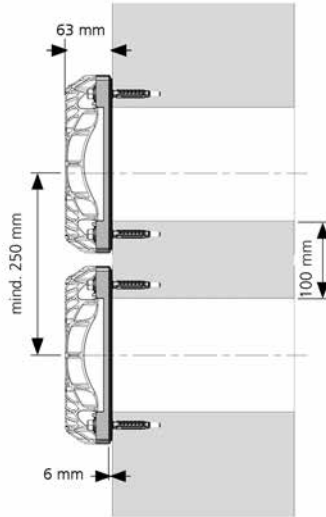
- gastight and watertight to 2.5 bar

Article code	Article number	GTIN
<b>HSI150 DFK OB<sup>1)</sup></b>	2118010022	4052487162555
<b>HSI150 DFK</b>	2118010020	4052487156264

<sup>1)</sup> without fastening elements



Multiple arrangement HSI150 DFK



spacing dimensions



HSI150 DFK polymer flange with blind cover HSI150 DT

Accessories

Figure	Item	Article code	Article number	GTIN
	Sealant	<b>Hybrid 7057Z</b>	3030537533	4052487248617

## Closing cover

for empty wall inserts and polymer flanges

### HSI150 DT

For pressure-tight sealing of wall inserts that are not in use and polymer flange of the HSI150 system.



#### USP

- transparent closing cover with TPE seal
- makes the water accumulation in the connected cable duct system visible
- defined breaking point for connection of a drain valve

#### Scope of delivery

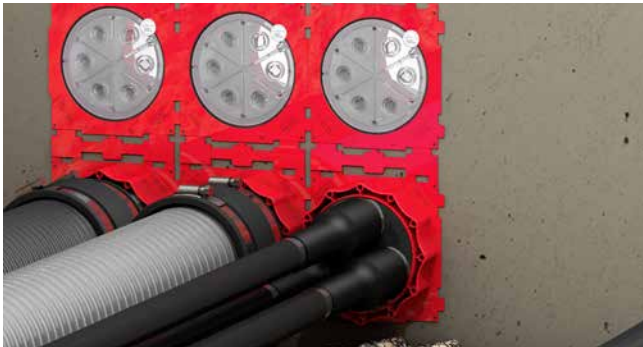
- 1 piece of lubricant stick

#### Tightness

- gastight and watertight



Item	Article code	Article number	GTIN
Closing cover	<b>HSI150 DT</b>	2126010172	4052487193566



# System cover

Cable seal with heat shrink technology



## HSI150 D WS

For use in wall insert and plastic flange HSI150. The thermal sleeves offer a wide range of applications and are heat-shrunk onto the cables using the system cover. Unused system cover sockets can be sealed with blind plugs.

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- Thermal sleeves
- Centring strap for HSI 150-D1/80 and HSI 150-D3/58



### Tightness

- gastight and watertight to 2.5 bar





Figure	Socket diameter	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	80	1	25-78	<b>HSI150 D1x80 WS</b>	2101100010	4052487054966
	58	3	22-56	<b>HSI150 D3x58 WS</b>	3030300082	4052487054997
	33	7	12-31	<b>HSI150 D7x33 WS</b>	3030300083	4052487197632



centring tape in system cover plugs of HSI150 D3x58 WS



### Accessories

Figure	Item	Article code	Article number	GTIN
	Finger sleeves in hot shrink-fit method	<b>3FM 1x44-13 3x16-4,2</b>	5170060010	4052487233408
		<b>3FM 1x71-22 3x26-9</b>	5170060001	4052487233415
	Finger sleeves in hot shrink-fit method	<b>4FM 1x55-21 4x20-7</b>	5170060040	4052487233392
		<b>4FM 1x80-25 4x27-9</b>	5170060041	4052487233385
	Replacement shrink-fit sleeves in hot shrink-fit method	<b>WSM I150 2x43-12</b>	5170030020	4052487232968
		<b>WSM I200 2x75-22</b>	5170030061	4052487233439
		<b>WSM I200 2x92-25</b>	5170030090	4052487233422
	Repair sleeves in hot shrink-fit method	<b>WSMR I250 2x53-13</b>	350030000	4052487010351
		<b>WSMR I250 2x85-22</b>	350040000	4052487010375
		<b>WSMR I250 2x107-29</b>	350070000	4052487010429

# System cover

Cable seal with cold shrink technology

## HSI150 D KS

For use in wall insert and plastic flange HSI150. The cold shrink sleeves offer a wide range of applications and are shrunk onto the cables by the system cover socket without tools. Unused system cover sockets can be sealed with blind plugs.



Cable entries

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)




### Scope of delivery

- cold shrink sleeves
- Centring strap for HSI 150-D1/80-KS and HSI 150-D3/58-KS





### Tightness

- gastight and watertight to 2.5 bar

Figure	Socket diameter	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	80	1	38-78	<b>HSI150 D1x80 KS</b>	2102100010	4052487055253
	58	3	32-56	<b>HSI150 D3x58 KS</b>	2102100041	4052487055277
	33	7	19-31	<b>HSI150 D7x33 KS</b>	2102100051	4052487055314



### Accessories

Figure	Item	Article code	Article number	GTIN
	Hot-melt adhesive tape	<b>Hatetherm</b>	316010000	4052487006668
	Replacement shrink-fit sleeves in cold shrink-fit method	<b>KSM I223 2x119-56</b>	5170040004	4052487232982
		<b>KSM I240 2x154-76</b>	5170040006	4052487232999

# System cover

Cable sealing with elastomer shrink technology

## HSI150 SF3x58

For use in wall insert and plastic flange HSI150. The flexible and robust system cover offers a wide range of applications, tool-free installation and gentle sealing of the cables. Bonds and seals on all cable sheath materials and metal. Unused system cover sockets can be sealed with blind plugs.



Cable entries

**USP**

- ideal for installation in confined spaces and for cables inserted at an angle
- quick, tool-less installation

- installation within 5 minutes

**Tightness**

- gastight and watertight

Figure	Socket diameter	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	58	3	34 - 58	<b>HSI150 SF3x58</b>	3030510838	4052487243971

# Split system cover

for retrofit sealing

## HSI150 DG

For use in wall insert and polymer flange HSI150. Split design for sealing new installed cables or cables that have already been installed.



### USP

- super segmented ring technology for individual adjustment to cable diameters on site
- Segments with diameter marking
- form-fit design of the press plates

### Scope of delivery

- 1 piece split adapter ring
- Blind plug (for multiple cable entries)
- 1 piece cleaning cloth

- 1 piece of kniefe
- 1 piece of lubricant stick

### Dimensions

- Sealing width: 40 mm
- Press plates with reinforcement ribs: 20 mm

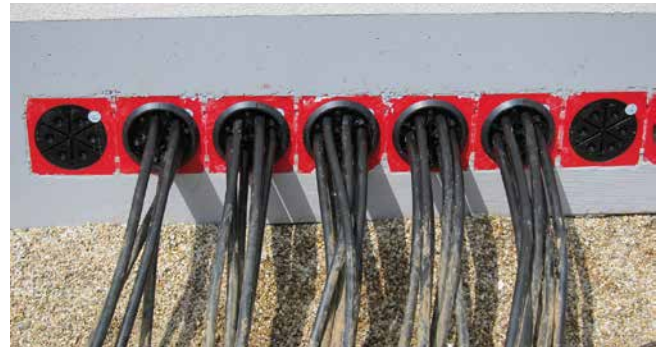
### Tightness

- gastight and watertight to 2.5 bar
- radon-proof



Figure	Openings	Area of application cable OD (mm)	Article code	Article number	GTIN
	1	36-70	<b>HSI150 DG 1x36-70<sup>1)</sup></b>	2102200020	4052487121064
	1	70-112	<b>HSI150 DG 1x70-112<sup>1)</sup></b>	2102200030	4052487121071
	3	24-54	<b>HSI150 DG 3x24-54</b>	2102200000	4052487055444
	6	10-36	<b>HSI150 DG 6x10-36</b>	2102200010	4052487055451

<sup>1)</sup> without blind plug for unoccupied openings



low-voltage cables sealed with HSI150 DG 6x10-36



various installation stages for HSI150 DG 3x24-54



HSI150 DG: abelling of segments with the application range

**Accessories**

Figure	Item	Article code	Article number	GTIN
	Universal Toolset	<b>WKZ U</b>	3030513585	4052487248471

# SEGMENTO

system cover for holding segments

## HSI150 S3

System cover for use in wall insert and plastic flange HSI150 For especially gentle sealing of cables. Holds three segments of your choice for sealing cables OD 5 - 31 mm.



### USP

- bayonet system with backstop (prevents self-opening)

### Scope of delivery

- 1 piece GMS lubricant

### Tightness

- gastight and watertight to 0.5 bar

Item	Article code	Article number	GTIN
SEGMENTO	<b>HSI150 S3</b>	3030300088	4052487062046



HSI150 - wall inserts fitted with SEGMENTO sealing for control cables in a transformer house



sealing of cables for street lighting with SEGMENTO

# SEGMENTO

Segments for installation in HSI150 S3 system cover

## SEG

For especially gentle sealing of micropipes and control lines.



Cable entries

### USP

- particularly flexible and gentle sealing with Technogel
- integrated torque control
- colour-coded segments for easy identification the application range

### Scope of delivery

- Blind plugs




### Tightness

- gastight and watertight to 0.5 bar

Figure	Openings	Suitable for medium pipe OD (mm)	Article code	Article number	GTIN
	2	20-31	<b>SEG 2x31</b>	3030300180	4052487215442
	3	20-26	<b>SEG 3x26</b>	3030300181	4052487215459
	6	15-21	<b>SEG 6x21</b>	3030300182	4052487215466
	8	5-15	<b>SEG 8x15</b>	3030300183	4052487215473



### Accessories

Figure	Item	Article code	Article number	GTIN
	Torque screwdriver for SEGMENTO	<b>DSD</b>	5200010236	4052487233477
	Assignment template for SEGMENTO	<b>BSS</b>	2300320000	4052487062244
	Lubricant for SEGMENTO	<b>GMS</b>	5020050021	4052487238557

# Customized press seal

for micro pipes and empty conduits

## HRD150 b60 A2/EPDM

Customized press seal in a closed design for sealing micro pipes or empty conduits.



### Scope of delivery

- 1 piece of lubricant stick

### Dimensions

- Sealing width: 60 mm
- Press plates: 5 mm

- for core drillings/wall sleeves  $\varnothing$ : 150 mm

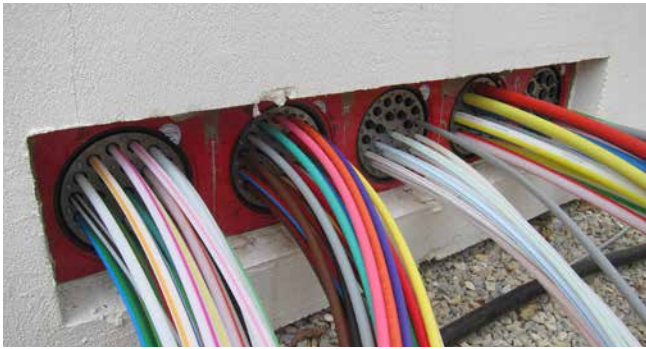
### Tightness

- gastight and watertight to 2.5 bar
- radon-proof




Figure	Openings	Carrier pipe $\varnothing_a$ (mm)	Article code	Article number	GTIN
	24	10	<b>HRD150 24x10 b60 A2/EPDM</b>	2703270012	4052487185318
	15	14	<b>HRD150 15x14 b60 A2/EPDM</b>	2703270013	4052487193795
	21	14	<b>HRD150 21x14 b60 A2/EPDM</b>	2703270014	4052487194150
	14	16	<b>HRD150 14x16 b60 A2/EPDM</b>	2703270011	4052487185301
	12	20	<b>HRD150 12x20 b60 A2/EPDM</b>	2703270010	4052487185295
	4	50	<b>HRD150 4x50 b60 A2/EPDM</b>	2703270009	4052487185288

without blind plug for unoccupied openings



### Accessories

Figure	Item	Width (mm)	Article code	Article number	GTIN
	Adapter ring for retrofit sealing	40	<b>HRD150 SG/ARG</b>	5060120155	4052487233330

# System cover

with sleeve method for polymer spiral duct

## KES MA150 D

For use with wall insert and polymer flange HSI150, and for connecting ducts. The seal is created using the sleeve method, clamping a rubber sleeve onto both the system cover and the polymer spiral duct with clamping straps.



Cable entries

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- 1 piece sleeve with clamping straps

### Tightness

- gastight and watertight to 2.5 bar



Item	Article code	Article number	GTIN
System cover	<b>KES MA150 D</b>	2125810000	4052487058070



KES MA150 D und Spiralschlauch Hateflex14150



KES MA150 D and spiral hose Hateflex14150



## System cover

with plug-in socket for smooth cable ducts



### HSI150 D GSM

For use in wall insert and plastic flange HSI150. For connecting smooth cable ducts. The seal is created using the plug-in method.

#### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

- push-fit connection with molded rubber part (OD 110 and 125 mm)

#### Tightness

- gastight and watertight to 0.5 bar



Pipe OD (mm)	Article code	Article number	GTIN
110	<b>HSI150 D1x110 GSM</b>	2101100105	4052487119443
125	<b>HSI150 D1x125 GSM</b>	2101100115	4052487119450



connection of a rigid cable duct DN 125 with HSI150 D 1x125 GSM

# System cover

with sleeve method for smooth cable ducts

## HSI150 MA GR

For use in wall insert and plastic flange HSI150. For connecting smooth cable ducts. The seal is created using the sleeve method, clamping a rubber sleeve onto both the system cover and the duct with clamping straps.



Cable entries

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- sleeve with clamping straps

### Tightness

- gastight and watertight to 0.5 bar



Pipe OD	Carrier pipe Øa (mm)	Article code	Article number	GTIN
110	90-113	<b>HSI150 MA110 GR</b>	2126010110	4052487058346
125	110-125	<b>HSI150 MA125 GR</b>	2126010125	4052487058360
145	130-145	<b>HSI150 MA145 GR</b>	2126010140	4052487058377
168	150-172	<b>HSI150 MA168 GR</b>	2126010000	4052487058292

For corrugated pipe connections, clip rings CR are additionally required.  
 Additionally, 2 profile seals from the corrugated pipe manufacturer are required for each pipe connection.



# System cover

with sleeve method for corrugated cable ducts



## HSI150 MA WR

For use in wall insert and plastic flange HSI150. For connecting corrugated cable ducts. The seal is created with the sleeve method, with a rubber sleeve being clamped onto both the system cover and the duct with clamping straps.

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

- patented clip ring technology

### Scope of delivery

- sleeve with clamping straps
- including ring clips

### Tightness

- gastight and watertight to 0.5 bar



Pipe OD (mm)	Manufacturer	Type	Article code	Article number	GTIN
110	Fränkische Rohrwerke	KABUFLEX	<b>HSI150 MA110 WR</b>	2126010113	4052487124980
125	Fränkische Rohrwerke	KABUFLEX	<b>HSI150 MA125 WR</b>	2126010007	4052487124973
168	Fränkische Rohrwerke	KABUFLEX	<b>HSI150 MA168 WR</b>	2126010001	4052487058308

When placing your order, please ensure that you specify the pipe manufacturer and type. Additionally, 2 profile seals from the corrugated pipe manufacturer are required for each pipe connection.



# System cover

with cold shrink-fit method for corrugated cable ducts

## HSI150 D KS WR

For use in wall insert and plastic flange HSI150. For connecting corrugated cable ducts. The cold shrink sleeves offer a wide range of applications and are shrunk onto the cables by the system cover socket without tools. Particularly gentle for thin-walled or temperature-sensitive pipes.



Cable entries

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- includes cold shrink tubing

### Tightness

- gastight and watertight to 0.5 bar



Pipe OD (mm)	Article code	Article number	GTIN
110	<b>HSI150 D1x110 KS WR</b>	2102100060	4052487055338
125	<b>HSI150 D1x125 KS WR</b>	2102100070	4052487055352



connection of corrugated pipes with cold shrink sleeves HSI150 D1x110 KS WR



# Cement-coated wall sleeve with sleeve

floor entry for Hateflex spiral duct



## KES MA150 ZVR150/500

For use in waterproof concrete. The Hateflex 14150 spiral duct can be connected using a sleeve. The seal with the cables is created with a press seal that is not included in the scope of delivery.

### USP

- special coating creates a watertight bond with the concrete
- the cement coated pipe can be cut to size, either straight or at an angle, once the floor has been finished

- 1 piece sleeve with clamping straps

### Dimensions

- Wall sleeve ID: 150 mm
- Length (excluding sleeve): 500 mm

### Tightness

- gastight and watertight



### Scope of delivery

- 1 piece of closing cover

Item	Article code	Article number	GTIN
Cement-coated wall sleeve with sleeve	<b>KES MA150 ZVR150/500</b>	2125502000	4052487139991



### Accessories

Figure	Item	Article code	Article number	GTIN
	Installation fixture for KES-M....-ZVR.../500	<b>KES FUBO-FIX AV</b>	1900500165	4052487165693
	Fastening bracket suitable for KES150 MA ZVR150/500 OD 160	<b>KES150 FUBO-FIX BB160</b>	1900500167	4052487165716

# Wall insert

for HSI150 system seals

## HSI150 1x1 KVB150

Wall insert for connecting to Hateflex spiral duct 14150. Optional for setting in concrete or for earth-side termination. Additional HSI150 system seals can be used to seal from the wall insert at the end of the duct onto the cables.



**USP**

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

- 1 piece pressure-tight closing cover

**Tightness**

- gastight and watertight to 2.5 bar

**Scope of delivery**

- 1 piece sleeve with clamping straps

Item	Article code	Article number	GTIN
Wall insert	<b>HSI150 1x1 KVB150</b>	2125811000	4052487058087



# Polymer spiral duct

for cable duct system



## Hateflex14150

Flexible and very rugged duct A pressure-tight cable duct system can be created with the matching connection components.

### USP

- flexible polymer spiral duct (peak compressive strength 450 N DIN EN 61386-24)
- A pressure-tight cable duct system (for up to 2.5 bar external pressure) can be created using the matching connection components.

### Scope of delivery

- Coils in lengths of 25 m (special lengths are available in 0.5 m sections)
- closing cover included

### Dimensions

- ID: 151 mm ± 1 mm
- OD: 166 mm ± 1 mm

### Tightness

- gastight and watertight to 2.5 bar

Length (m)	Article code	Article number	GTIN
2.0	<b>Hateflex14150/2000</b>	3030589945	4052487247832
3.0	<b>Hateflex14150/3000</b>	3030589745	4052487247856
4.0	<b>Hateflex14150/4000</b>	3030589760	4052487247863
5.0	<b>Hateflex14150/5000</b>	3030589762	4052487247870
6.0	<b>Hateflex14150/6000</b>	3030589763	4052487247887
8.0	<b>Hateflex14150/8000</b>	3030589765	4052487247894
10.0	<b>Hateflex14150/10000</b>	3030589819	4052487247795
12.0	<b>Hateflex14150/12000</b>	3030589938	4052487247801
15.0	<b>Hateflex14150/15000</b>	3030589939	4052487247818
20.0	<b>Hateflex14150/20000</b>	3030589942	4052487247825
25.0	<b>Hateflex14150/25000</b>	3030589947	4052487247849

Other lengths on request



### Accessories

Figure	Item	Article code	Article number	GTIN
	Spacer for the spiral duct 150	<b>KES150 1x2 AH PP</b>	3030361164	4052487233347

# Connection sleeve

for extending the spiral duct

## KES150 MA150-172/150-172

Connection sleeve for duct extension or duct connection for the Hateflex spiral duct 14150.



### Scope of delivery

- 1 piece sleeve with clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Connection sleeve	<b>KES150 MA150-172/150-172</b>	2128020000	4052487058407



## Pipe connection sleeve

for connecting smooth cable ducts

KES150 MA160-172/140-163

Connects Hateflex spiral duct 14150 to smooth cable ducts OD 160 mm.



### Scope of delivery

- Clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Pipe connection sleeve	<b>KES150 MA160-172/140-163</b>	2125812000	4052487058100



## Pipe connection sleeve

for connecting smooth cable ducts

KES150 MA160-172/140-163 AR111

Connects Hateflex spiral duct 14150 to smooth cable ducts OD 110 mm.



### Scope of delivery

- Clamping straps
- 1 piece adapter ring Ø160 mm / Ø111 mm

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Pipe connection sleeve	<b>KES150 MA160-172/140-163 AR111</b>	2125814000	4052487058131

## Pipe connection sleeve

for connecting smooth cable ducts

### KES150 MA160-172/140-163 AR126

Connects Hateflex spiral duct 14150 to smooth cable ducts OD 125 mm.



#### Scope of delivery

- Clamping straps
- 1 piece adapter ring Ø160 mm / Ø125 mm

#### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Pipe connection sleeve	<b>KES150 MA160-172/140-163 AR126</b>	2125813000	4052487058124

## Connection set for cable duct system with core drill holes/wall sleeve

for retrofit installation

### KES150 MA KB SET

For connecting the Hateflex spiral duct 14150 to core drills or wall sleeves. The pipe socket is connected to the duct with a sleeve. Sealing is done with the two press seals (included in scope of delivery).



#### Scope of delivery

- 1 piece pipe including sleeve with clamping straps
- 2 pieces of press seals HSD 200/159

- Pipe socket OD: 150 mm
- Pipe socket length: 500 mm

#### Tightness

- gastight and watertight to 2.5 bar

#### Dimensions

- Pipe socket OD: 160 mm

Item	Article code	Article number	GTIN
Connection set for cable duct system with core drill holes/wall sleeve	<b>KES150 MA KB SET<sup>1)</sup></b>	2125818500	4052487140409

<sup>1)</sup> Other variants available, see [www.hauff-technik.com](http://www.hauff-technik.com)

## Duct connection

for connecting to core drill or wall sleeve



### KES150 MA160-172/140-163 SET

For connecting the Hateflex spiral duct 14150 to core drills or wall sleeves and for forming a pressure-tight cable duct system (2.5 bar external pressure). The pipe socket is connected to the duct with a sleeve. Sealing within the wall is done by an additional press seal (not included in scope of delivery)

#### USP

- Duct connection to form a pressure-tight cable duct system (2.5 bar external pressure)

#### Scope of delivery

- 1 piece pipe including sleeve with clamping straps

#### Dimensions

- Pipe socket OD: 160 mm
- Protruding pipe socket length: approx. 440 mm

#### Tightness

- gastight and watertight to 2.5 bar

Article code	Article number	GTIN
<b>KES150 MA160-172/140-163 SET</b>	2125818000	4052487058278



# Sealing set interchangeable insert

for cable sealing at the end of the duct



Cable entries

## KES150 MA WE160 SG SET

Sealing set with sleeve including split interchangeable insert with segment ring technology for sealing cables with rubber seal at the end of Hateflex spiral duct 14150.

### Scope of delivery

- Blind plugs
- Sleeve with clamping straps

- Interchangeable insert: OD 100 mm
- Maximum configuration: according to variant table

### Dimensions

- Interchangeable insert: OD 160 mm

### Tightness

- gastight and watertight to 0.5 bar

Figure	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	1	48-83	<b>KES150 MA WE160 SG 1x48-83 SET</b>	2125817103	4052487164764
	3	22-58	<b>KES150 MA WE160 SG 3x22-58 SET</b>	2125817102	4052487164757
	6	8-36	<b>KES150 MA WE160 SG 6x8-36 SET</b>	2125817101	4052487164740

Other variants available, see [www.hauff-technik.com](http://www.hauff-technik.com)



sealing in soil at the end of spiral hose Hateflex14150 with the sealing set KES150 MA WE 160 SG 3x22-58 SET



pressure-tight connection of spiral duct Hateflex14150 to wall insert HSI150 and end stop for the cable duct



# Sleeve

for cable sealing at the end of the duct

## KES150 MA160-172/140-163 WE

For installation at the end of the Hateflex spiral duct 14150. Cables can be sealed within the sleeve by using the interchangeable insert WE160 z/d The entire cross-section of the duct is available when the cables are being laid.



### Scope of delivery

- 1 piece sleeve with clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Sleeve	<b>KES150 MA160-172/140-163 WE</b>	2125817100	4052487120937



# Split interchangeable insert with segment ring technology

for cable sealing at the end of the duct



## WE160 SG

For installation within the KES150 MA WE sleeve to seal cables at the end of the Hateflex spiral duct 14150

### Scope of delivery

- Blind plugs

### Dimensions

- OD: 160 mm

- Sealing width: 60 mm
- Maximum configuration: according to variant table

### Tightness

- gastight and watertight to 2.5 bar




Figure	Number of cables/medium	Article code	Article number	GTIN
	1	<b>WE160 SG 1x48-83</b>	825817116	4052487164719
	3	<b>WE160 SG 3x22-58</b>	825817115	4052487164702
	6	<b>WE160 SG 6x8-36</b>	825817114	4052487164696

### General accessories




Figure	Item	Bestellbezeichnung	Article number	GTIN
	Cable cleaner	<b>KR706</b>	3030609811	4052487248716
	Flexible socket wrench	<b>SLS 6G</b>	5200010040	4052487233491
		<b>SLS 6GD<sup>1)</sup></b>	5200010041	4052487233484
	Lubricant	<b>GML</b>	5020050010	4052487238564

<sup>1)</sup> for buildings with perimeter insulation

### Wall inserts and polymer flange

Figure	Item	Bestellbezeichnung	Article number	GTIN
	Pressure discharge element discharge valve for HSI150 DT closing cover	<b>HSI150 DAE</b>	2126010170	4052487193504
	Hose extension for pressure discharge element	<b>HSI150 DAE SV</b>	2126010171	4052487193559
	Spacer	<b>HSI AH40 SET2</b>	3030300093	4052487220156

## System covers with shrink-fit sleeve

Figure	Item	Bestellbezeichnung	Article number	GTIN
	Blind plug For system cover	<b>VS32/34</b>	3030300266	4052487216319
		<b>VS58/60</b>	3030300267	4052487216326
	Set of centering tape	<b>Zentrierband EPDM50</b>	5060120250	4052487233323

## Cable duct systems

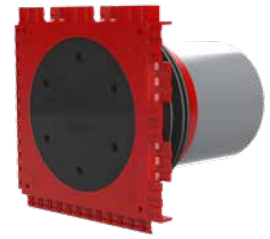
Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Installation fixture for KES-M...-ZVR.../500	<b>KES FUBO-FIX AV</b>	1	1900500165	4052487165693
	Fastening bracket suitable for KES150 MA ZVR150/500 OD 160	<b>KES150 FUBO-FIX BB160</b>	1	1900500167	4052487165716
	Connection sleeve for extending the spiral duct	<b>KES150 MA150-172/150-172</b>	1	2128020000	4052487058407
	Pipe connection sleeve for connecting smooth cable ducts	<b>KES150 MA160-172/140-163</b>	1	2125812000	4052487058100
	Ring clips for corrugated cable ducts and pipes	<b>CR110 A2</b>	1	1630500110	4052487134491
		<b>CR125 A2</b>	1	1630500125	4052487134514
		<b>CR160 A2</b>	1	1630500160	4052487134538
	Duct connection for connecting to core drill or wall sleeve	<b>KES150 MA160-172/140-163 SET</b>	1	2125818000	4052487058278
	Spacer for the spiral duct 150	<b>KES150 1x2 AH PP</b>	1	3030361164	4052487233347
	Universal Toolset	<b>WKZ U</b>	1	3030513585	4052487248471

# Single wall insert

for setting in concrete

## HSI90 K/X

For the one-sided gastight and watertight connection of system covers for cables or cable ducts, for a high level of flexibility in future use.



### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

### Scope of delivery

- 1 piece pressure-tight closing cover

### Dimensions

- Frame dimensions: 145x 145 mm (per wall insert)
- Centre distance: 135 mm
- Minimum wall thickness: 70 mm

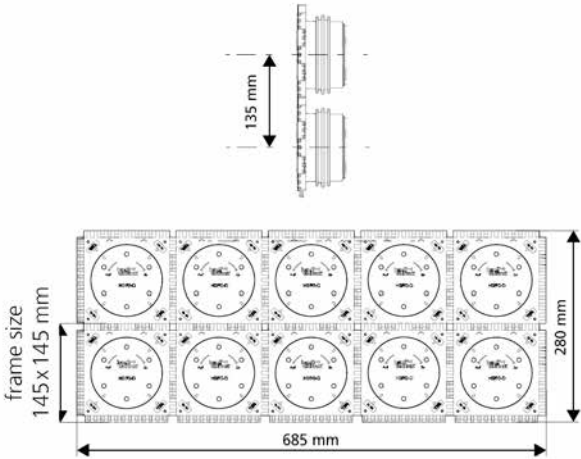


### Tightness

- gastight and watertight to 2.0 bar
- radon-proof

Wall thickness (mm)	Article code	Article number	GTIN
100	<b>HSI90 1x1 K/100</b>	3030303447	4052487223263
120	<b>HSI90 1x1 K/120</b>	3030303489	4052487211055
150	<b>HSI90 1x1 K/150</b>	3030303367	4052487222945
200	<b>HSI90 1x1 K/200</b>	3030303449	4052487223270
250	<b>HSI90 1x1 K/250</b>	3030303453	4052487223294

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.  
The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



HSI90 mounting frame manufactured in a two-component injection moulding process

# Slanted single wall insert

for setting in concrete

## HSI90 1xZ K S\_°/X



For slanted cable entries from any direction and an optimised bending radius when inserting and sealing cables or connecting cable ducts.

### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

### Scope of delivery

- 1 piece polystyrene wedge
- Mounting frame

- 1 piece pressure-tight closing cover

### Dimensions

- Centre distance: 135 mm

### Tightness

- gastight and watertight to 2.0 bar
- radon-proof



Installation angle	Minimum wall thickness (mm)	Article code
30 °	190	<b>HSI90 1xZ K S30°/X<sup>1)</sup></b>
45 °	200	<b>HSI90 1xZ K S45°/X<sup>1)</sup></b>

<sup>1)</sup> Article number and GTIN on request

Z = number of columns (1-6), X = wall thickness (mm, 180-230)

The minimum concrete cover of 200 mm in accordance with the waterproof concrete guideline (information sheet H10) is only reached from a wall thickness of 300 mm (S45° - 350 mm) with the HSI90 K S30° slanted wall insert.

# Single wall insert with foldable rubber sleeve

for setting in concrete and connecting cable ducts



## HSI90 KMA

For the direct connection of cable ducts (exterior) and for connecting system seals for cables (interior).

### USP

- thanks to the folding sleeve technique, no additional pipe connection components are needed
- elastic and firmly supported connection due to increased insertion depth, even with deflection of the cable duct
- Installation of cable seals on the inside possible

### Scope of delivery

- 1 piece pressure-tight closing cover
- 1 piece blind cover
- 1 piece of clamping strap



### Dimensions

- Frame dimensions: 145x 145 mm (per wall insert)

### Tightness

- gastight and watertight
- radon-proof

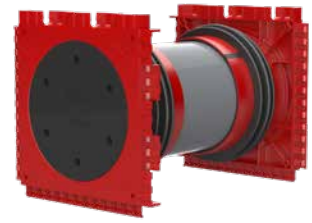
Wall thickness (mm)	Pipe OD (mm)	Article code	Article number
200	63	HSI90 1x1 KMA94/63/200 CH	3030576760
250		HSI90 1x1 KMA94/63/250 CH	3030576761
300		HSI90 1x1 KMA94/63/300 CH	3030576767
120	72	HSI90 1x1 KMA94/72/120 CH	3030576689
140		HSI90 1x1 KMA94/72/140 CH	3030576690
150		HSI90 1x1 KMA94/72/150 CH	3030576691
200		HSI90 1x1 KMA94/72/200 CH	3030576692
250		HSI90 1x1 KMA94/72/250 CH	3030576693
300		HSI90 1x1 KMA94/72/300 CH	3030576732
120	92	HSI90 1x1 KMA94/120 CH	3030488698
140		HSI90 1x1 KMA94/140 CH	3030541050
150		HSI90 1x1 KMA94/150 CH	3030534049
200		HSI90 1x1 KMA94/200 CH	3030541058
250		HSI90 1x1 KMA94/250 CH	3030541060
300		HSI90 1x1 KMA94/300 CH	3030541061

# Double wall insert

for setting in concrete

## HSI90 K2/X

For gastight and watertight connection of system covers for sealing of cables and cable ducts on both sides and maximum flexibility in future use.



### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

### Scope of delivery

- 2 pieces of pressure-tight closing covers

### Dimensions

- Frame dimensions: 145x 145 mm (per wall insert)
- Centre distance: 135 mm
- Minimum wall thickness: 100 mm

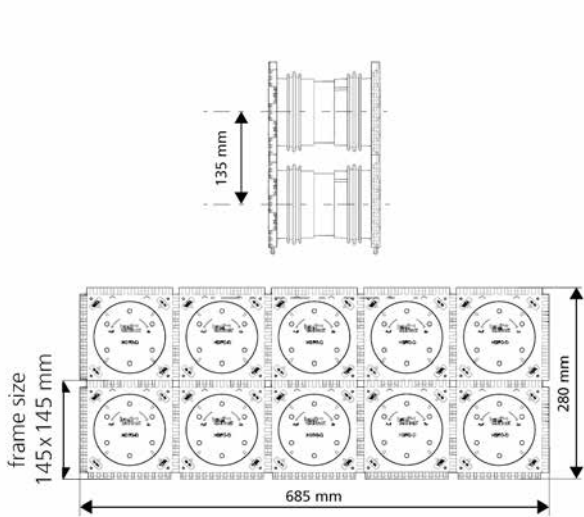


### Tightness

- gastight and watertight to 2.0 bar
- radon-proof

Wall thickness (mm)	Article code	Article number	GTIN
120	<b>HSI90 1x1 K2/120</b>	3030309799	4052487244039
140	<b>HSI90 1x1 K2/140</b>	3030303704	4052487244053
200	<b>HSI90 1x1 K2/200</b>	3030440556	4052487242042
250	<b>HSI90 1x1 K2/250</b>	3030440663	4052487242080
300	<b>HSI90 1x1 K2/300</b>	3030440611	4052487242059

Price for wall thickness up to 500 mm. Price on request for wall thickness > 500 mm.  
The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)



example 2x5 block for 200 mm wall thickness: article code: HSI90 2x5 K2/250



double wall insert HSI90 as block used in formwork

# Double slanted wall insert

for setting in concrete

## HSI90 1xZ K2 S<sub>°</sub>/X



For slanted cable entries from any direction and an optimised bending radius when inserting and sealing cables or connecting cable ducts.

### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

### Scope of delivery

- 2 pieces of polystyrene wedges
- Mounting frame

- 2 pieces of pressure-tight closing covers

### Dimensions

- Centre distance: 135 mm

### Tightness

- gastight and watertight to 2.0 bar
- radon-proof



Installation angle	Minimum wall thickness (mm)	Article code
30 °	200	<b>HSI90 1xZ K2 S30°/X<sup>1)</sup></b>
45 °	210	<b>HSI90 1xZ K2 S45°/X<sup>1)</sup></b>

<sup>1)</sup> Article number and GTIN on request

Z = number of columns (1-6), X = wall thickness (mm, 180-230)

The minimum concrete cover of 200 mm in accordance with the waterproof concrete guideline (information sheet H10) is only reached from a wall thickness of 298 mm (S45° - 335 mm, S60° - 360mm) with the HSI90 K2 S30° slanted wall insert.

# Polymer flange

for retrofit installation

## HSI90 DFK

For retrofit bolting to concrete walls or for screwing onto steel housings. Used for the gastight and watertight connection of system seals for cables and cable ducts.



### USP

- with integrated spirit level
- Tested solution for use with pre-applied waterproofing membrane

### Scope of delivery

- Fixing elements including sealing ring
- 1 piece surface seal, 6 mm thick

### Dimensions

- Length x width: 185 x 185 mm
- Recommended centre distance for core drills: 200 mm
- Core drills max. Ø: 100 mm
- Build-up in front of the wall including surface seal: 40 mm

### Tightness

- gastight and watertight to 2.0 bar

Article code	Article number	GTIN
<b>HSI90 DFK</b>	3030466887	4052487240529
<b>HSI90 DFK OB<sup>1)</sup></b>	3030572403	4052487247313

<sup>1)</sup> without fastening elements

### Accessories

Figure	Item	Article code	Article number	GTIN
	Sealant	<b>Hybrid 7057Z</b>	3030537533	4052487248617

## Closing cover

for unused wall inserts or polymer flange

### HSI90 D

For pressure-tight sealing of unused wall inserts and polymer flanges of the HSI90 system.



#### Tightness

- gastight and watertight to 2.0 bar

Item	Article code	Article number	GTIN
Closing cover	<b>HSI90 D</b>	2205010000	4052487060851

# System cover

Cable seal with heat shrink technology



## HSI90 D WS

For use in wall insert and polymer flange HSI90. The thermal sleeves offer a wide range of applications and are heat-shrunk onto the cables using the system cover. Unused system cover sockets can be sealed with blind plugs.

### USP




- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- Thermal sleeves
- Centring strap for HSI 90-D1/75

### Tightness

- gastight and watertight to 2.0 bar

Figure	Socket diameter	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	75	1	25-72	<b>HSI90 D1x75 WS</b>	3030300089	4052487060936
	32	3	12-30	<b>HSI90 D3x32 WS</b>	3030300090	4052487060899
	20	6	8-18	<b>HSI90 D6x20 WS</b>	3030300091	4052487060912



station entry: low-voltage cable sealed HSI90 D1x75 WS and HSI90 D3x32 WS

**Accessories**

Figure	Item	Article code	Article number	GTIN
	Replacement shrink-fit sleeves in hot shrink-fit method	<b>WSM I150 2x25-8</b>	5170030005	4052487233446
	Repair sleeves in hot shrink-fit method	<b>WSMR I250 2x85-22</b>	350040000	4052487010375
	Finger sleeves in hot shrink-fit method	<b>3FM 1x44-13 3x16-4,2</b>	5170060010	4052487233408
		<b>4FM 1x55-21 4x20-7</b>	5170060040	4052487233392
	Repair sleeves in hot shrink-fit method	<b>WSMR I250 2x53-13</b>	350030000	4052487010351
	Replacement shrink-fit sleeves in hot shrink-fit method	<b>WSM I150 2x43-12</b>	5170030020	4052487232968
	Repair sleeves in hot shrink-fit method	<b>WSMR I250 2x34-10</b>	350010000	4052487010337
	Replacement shrink-fit sleeves in hot shrink-fit method	<b>WSM I200 2x92-25</b>	5170030090	4052487233422

# System cover

Cable seal with cold shrink technology



## HSI90 D KS

For use in wall insert and polymer flange HSI90. The cold shrink sleeves offer a wide range of applications and are shrunk onto the cables by the system cover socket without tools. Unused system cover sockets can be sealed with blind plugs.

### USP




- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery



- cold shrink sleeves
- Centring strap for HSI 90-D1/75-KS

### Tightness

- gastight and watertight to 2.0 bar

Figure	Socket diameter	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	75	1	38-72	<b>HSI90 D1x75 KS</b>	2206040005	4052487130547
	32	3	19-30	<b>HSI90 D3x32 KS</b>	2206050060	4052487061124
	20	6	14-18	<b>HSI90 D6x20 KS</b>	2206050070	4052487061131

### Accessories

Figure	Item	Article code	Article number	GTIN
	Hot-melt adhesive tape	<b>Hatetherm</b>	316010000	4052487006668
	Replacement shrink-fit sleeves in cold shrink-fit method	<b>KSM I235 2x98,3-24,4</b>	5170040001	4052487232975

# System cover

for connection to the wall insert HSI90



## KES MA90 D

For connecting the Hateflex spiral duct 14090 to the wall insert or polymer flange HSI90.

### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

### Scope of delivery

- 1 piece sleeve with clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
System cover	<b>KES MA90 D</b>	2225810000	4052487061377



KES MA90 D and spiral hose Hateflex14090



KES MA90 D - connection to the HSI90 wall insert



## System cover

with sleeve method for smooth cable ducts



Cable entries

### HSI90 MA GR

For use in wall insert and polymer flange HSI90. For connecting smooth cable ducts. The seal is created using the sleeve method, clamping a rubber sleeve onto both the system cover and the duct with clamping straps.

#### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

#### Scope of delivery

- 1 piece sleeve with clamping straps

#### Tightness

- gastight and watertight to 0.5 bar

Pipe OD (mm)	Article code	Article number	GTIN
75	<b>HSI90 MA75 GR</b>	2206040015	4052487129145
90	<b>HSI90 MA90 GR</b>	2206040018	4052487060981
110	<b>HSI90 MA110 GR</b>	2206040020	4052487060998

For corrugated pipe connections, clip rings CR are additionally required.  
Additionally, 2 profile seals from the corrugated pipe manufacturer are required for each pipe connection.

## System cover

with cold shrink-fit method for corrugated cable ducts



### HSI90 D1x75 KS WR

For use in wall insert and polymer flange HSI90. For connecting corrugated cable ducts. The cold shrink sleeves offer a wide range of applications and are shrunk onto the cables by the system cover socket without tools. Particularly gentle for thin-walled or temperature-sensitive pipes.

#### USP

- mechanical fixing (bayonet) and sealing (tension nut) act independently
- Bayonet system with backstop and counter screw connection (prevents self-opening)

#### Scope of delivery

- 1 piece shrink tubing

#### Dimensions

- For pipe diameter: OD: 75 mm

#### Tightness

- gastight and watertight to 0.5 bar

Pipe OD (mm)	Article code	Article number	GTIN
75	<b>HSI90 D1x75 KS WR</b>	2206040001	4052487060943



connection of corrugated ducts HSI90 D1x75 KS WR

# Cement-coated wall sleeve with sleeve

floor entry for Hateflex spiral duct

## KES MA90 ZVR100/500

For use in waterproof concrete. The Hateflex 14090 spiral duct can be connected by using a sleeve. The seal with the cables is created with a press seal that is not included in the scope of delivery.



### USP

- special coating creates a watertight bond with the concrete
- the cement coated pipe can be cut to size, either straight or at an angle, once the floor has been finished

### Scope of delivery

- 1 piece of closing cover

- 1 piece sleeve with clamping straps

### Dimensions

- Wall sleeve ID: 100 mm
- Length (excluding sleeve): 500 mm

### Tightness

- gastight and watertight

Item	Article code	Article number	GTIN
Cement-coated wall sleeve with sleeve	<b>KES MA90 ZVR100/500</b>	2125502003	4052487164894



side by side arrangement 2x KES90 MA ZVR100/500 on the installation fixture KES FUBO-FIX AV

### Accessories

Figure	Item	Article code	Article number	GTIN
	Installation fixture for KES-M....-ZVR.../500	<b>KES FUBO-FIX AV</b>	1900500165	4052487165693
	Fastening bracket suitable for KES90 MA ZVR150/500 OD 110	<b>KES90/110 FUBO-FIX BB110</b>	1900500166	4052487165709

## Wall insert

For the installation of HSI90 system seals

### HSI90 1x1 KVB90

Wall insert for connecting to Hateflex spiral duct 14090. Optional for setting in concrete or for earth-side termination. Additional HSI90 system seals can be used to seal from the wall insert at the end of the duct onto the cables.



#### USP

- injection molded 3-ribbed seal for pressure-tight seal to the concrete

#### Scope of delivery

- 1 piece sleeve with clamping straps

- 1 piece pressure-tight closing cover

#### Tightness

- gastight and watertight to 2.5 bar

Pipe OD (mm)	Article code	Article number	GTIN
102	<b>HSI90 1x1 KVB90</b>	2225811000	4052487061384



# Polymer spiral duct

for cable duct system



## Hateflex14090

Flexible and very rugged duct A pressure-tight cable duct system can be created with the matching connection components.

### USP

- flexible polymer spiral duct (peak compressive strength 450 N DIN EN 61386-24)
- A pressure-tight cable duct system (for up to 2.5 bar external pressure) can be created using the matching connection components.

### Scope of delivery

- Coils in lengths of 25 m (special lengths are available in 0.5 m sections)
- closing cover included

### Dimensions

- ID: 91 mm ± 1 mm
- OD: 104 mm ± 1 mm

### Tightness

- gastight and watertight to 2.5 bar

Length (m)	Article code	Article number	GTIN
1.5	<b>Hateflex14090/1500</b>	3030590137	4052487247610
2.0	<b>Hateflex14090/2000</b>	3030590139	4052487247634
3.0	<b>Hateflex14090/3000</b>	3030590121	4052487247658
6.0	<b>Hateflex14090/6000</b>	3030590122	4052487247665
8.0	<b>Hateflex14090/8000</b>	3030590124	4052487247672
10.0	<b>Hateflex14090/10000</b>	3030590164	4052487247580
12.0	<b>Hateflex14090/12000</b>	3030590166	4052487247597
15.0	<b>Hateflex14090/15000</b>	3030590136	4052487247603
20.0	<b>Hateflex14090/20000</b>	3030590138	4052487247627
25.0	<b>Hateflex14090/25000</b>	3030590140	4052487247641

Other lengths on request



### Accessories

Figure	Item	Article code	Article number	GTIN
	Spacer for the Hateflex spiral hose 14090	<b>KES90 2x4 AH</b>	5010060046	4052487233699

## Connection sleeve

for extending the spiral duct

KES90 MA90-102/90-102

Connection sleeve for duct extension or duct connection onto Hateflex spiral duct 14090.



### Scope of delivery

- 1 piece sleeve with clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Connection sleeve	<b>KES90 MA90-102/90-102</b>	2209060100	4052487061186



## Pipe connection sleeve

for connecting smooth cable ducts

KES90 MA70-90/90-110

Used to connect Hateflex14090 spiral duct to smooth cable ducts Øa 75 mm or 90 mm.



### Scope of delivery

- Clamping straps

### Tightness

- gastight and watertight to 2.5 bar

Item	Article code	Article number	GTIN
Pipe connection sleeve	<b>KES90 MA70-90/90-110</b>	2225814000	4052487061414



# Pipe connection sleeve

for connecting smooth cable ducts

## KES110 MA110-125/90-113

The KES110 MA110-125/90-113 is used to connect Hateflex14110 spiral duct to smooth cable ducts with OD 110 mm.



Cable entries

**USP**

- gas-tight and watertight rubber sleeve technology

- 2 pieces of clamping straps

**Tightness**

- gastight and watertight to 2.5 bar

**Scope of delivery**

- 1 piece connection sleeve KES110 MA110-125/90-113

Article code	Article number	GTIN
<b>KES110 MA110-125/90-113</b>	825814000	4052487015806



## Pipe connection

for connecting to core drill or wall sleeve



### KES90 MA110-125/90-113 SET

For connecting the Hateflex spiral duct 14090 to core drills or wall sleeves. The pipe socket is connected to the duct with a sleeve. An additional press seal is required for sealing to the wall.

#### Scope of delivery

- 1 piece pipe including sleeve with clamping straps

- Protruding pipe socket length: approx. 440 mm

#### Tightness

- gastight and watertight to 2.5 bar

#### Dimensions

- Pipe socket OD: 90 mm

Figure	Number of cables/medium	Area of application cable OD (mm)	Article code	Article number	GTIN
	1	110-125	<b>KES90 MA110-125/90-113 SET</b>	2225818000	4052487061452
	1	90-113			



# Connection set for cable duct system with core drill holes/wall sleeve

for retrofit installation



Cable entries

## KES90 MA KB SET

For connecting the Hateflex spiral duct 14090 to core drills or wall sleeves. The pipe socket is connected to the duct with a sleeve. Sealing is done with the two press seals (included in scope of delivery).

### Scope of delivery

- 1 piece pipe including sleeve with clamping straps
- 2 pieces of press seals HSD 150/110

- Pipe socket OD: 100 mm
- Pipe socket length: 500 mm

### Tightness

- gastight and watertight to 2.5 bar

### Dimensions

- Pipe socket OD: 110 mm

Item	Article code	Article number	GTIN
Connection set for cable duct system with core drill holes/wall sleeve	<b>KES90 MA KB SET<sup>1)</sup></b>	2125818504	4052487164900

<sup>1)</sup> Other variants available, see [www.hauff-technik.com](http://www.hauff-technik.com)



# Sealing set interchangeable insert

for cable sealing at the end of the duct

KES90 MA90-102/90-102 WE100 SG  
1x18-65



Sealing set with sleeve KES-M 90-WE including split interchangeable insert with segment ring technology for sealing cables with a rubber seal technology at the end of Hateflex14090 spiral duct.

### Scope of delivery

- Blind plugs
- Sleeve with clamping straps: KES-M 90-WE

- Interchangeable insert: OD 100 mm
- Cable Øa: 18 - 65 mm

### Tightness

- gastight and watertight to 0.5 bar

### Dimensions

- Sealing width interchangeable insert: 60 mm

Item	Article code	Article number	GTIN
Sealing set interchangeable insert	<b>KES90 MA90-102/90-102 WE100 SG 1x18-65</b>	2225817101	4052487164726



pressure-tight connection of spiral hose Hateflex14090 to wall insert HSI90 and end stop for the cable duct



sealing set KES90 MA WE100 SG 1x18-65 SET for cable sealing at end of cable duct

## Sleeve

for cable sealing at the end of the duct

### KES90 MA90-102/90-102 WE

For installation at the end of the Hateflex spiral duct 14090. In combination with the interchangeable insert WE 100-z/d, which is installed in the sleeve, cables can be sealed using rubber compression technology. The entire cross-section of the duct is available when the cables are being laid.



#### Scope of delivery

- 1 piece sleeve with clamping straps

#### Tightness

- gastight and watertight to 2.5 bar

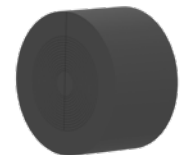
Item	Article code	Article number	GTIN
Sleeve	<b>KES90 MA90-102/90-102 WE</b>	2225817100	4052487120951

## Split interchangeable insert with segment ring technology

for cable sealing at the end of the duct

### WE100 SG 1x18-65

For installation in the KES-M 90-WE sleeve and sealing of cables with rubber compression technology at the end of the Hateflex14090 spiral duct.



#### Scope of delivery

- Blind plugs

#### Dimensions

- OD: 100 mm





- Sealing width: 60 mm
- Application range cable diameter: 18 - 65 mm

#### Tightness

- gastight and watertight to 0.5 bar




Article code	Article number	GTIN
<b>WE100 SG 1x18-65</b>	825817112	4052487159166

### General accessories

Figure	Item	Bestellbezeichnung	Article number	GTIN
	Cable cleaner	<b>KR706</b>	3030609811	4052487248716
	Flexible socket wrench	<b>SLS 6G</b>	5200010040	4052487233491
		<b>SLS 6GD<sup>1)</sup></b>	5200010041	4052487233484
	Lubricant	<b>GML</b>	5020050010	4052487238564

<sup>1)</sup> for buildings with perimeter insulation

### System covers with shrink-fit sleeve

Figure	Item	Bestellbezeichnung	Article number	GTIN
	Blind plug For system cover	<b>VS32/34</b>	3030300266	4052487216319
		<b>VS58/60</b>	3030300267	4052487216326
	Set of centering tape	<b>Zentrierband EPDM50</b>	5060120250	4052487233323

## Cable duct systems

Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Installation fixture for KES-M...-ZVR.../500	<b>KES FUBO-FIX AV</b>	1	1900500165	4052487165693
	Fastening bracket suitable for KES90 MA ZVR150/500 OD 110	<b>KES90/110 FUBO-FIX BB110</b>	1	1900500166	4052487165709
	Connection sleeve for extending the spiral duct	<b>KES90 MA90-102/90-102</b>	1	2209060100	4052487061186
		<b>KES90 MA70-90/90-110</b>	1	2225814000	4052487061414
	Pipe connection sleeve for connecting smooth cable ducts	<b>KES110 MA110-125/90-113</b>	1	825814000	4052487015806
	Ring clips for corrugated cable ducts and pipes	<b>CR90 A2</b>	1	1630500090	4052487134484
		<b>CR110 A2</b>	1	1630500110	4052487134491
	Pipe connection for connecting to core drill or wall sleeve	<b>KES90 MA110-125/90-113 SET</b>	1	2225818000	4052487061452
	Spacer for the Hateflex spiral hose 14090	<b>KES90 2x4 AH</b>	1	5010060046	4052487233699
	Universal Toolset	<b>WKZ U</b>	1	3030513585	4052487248471

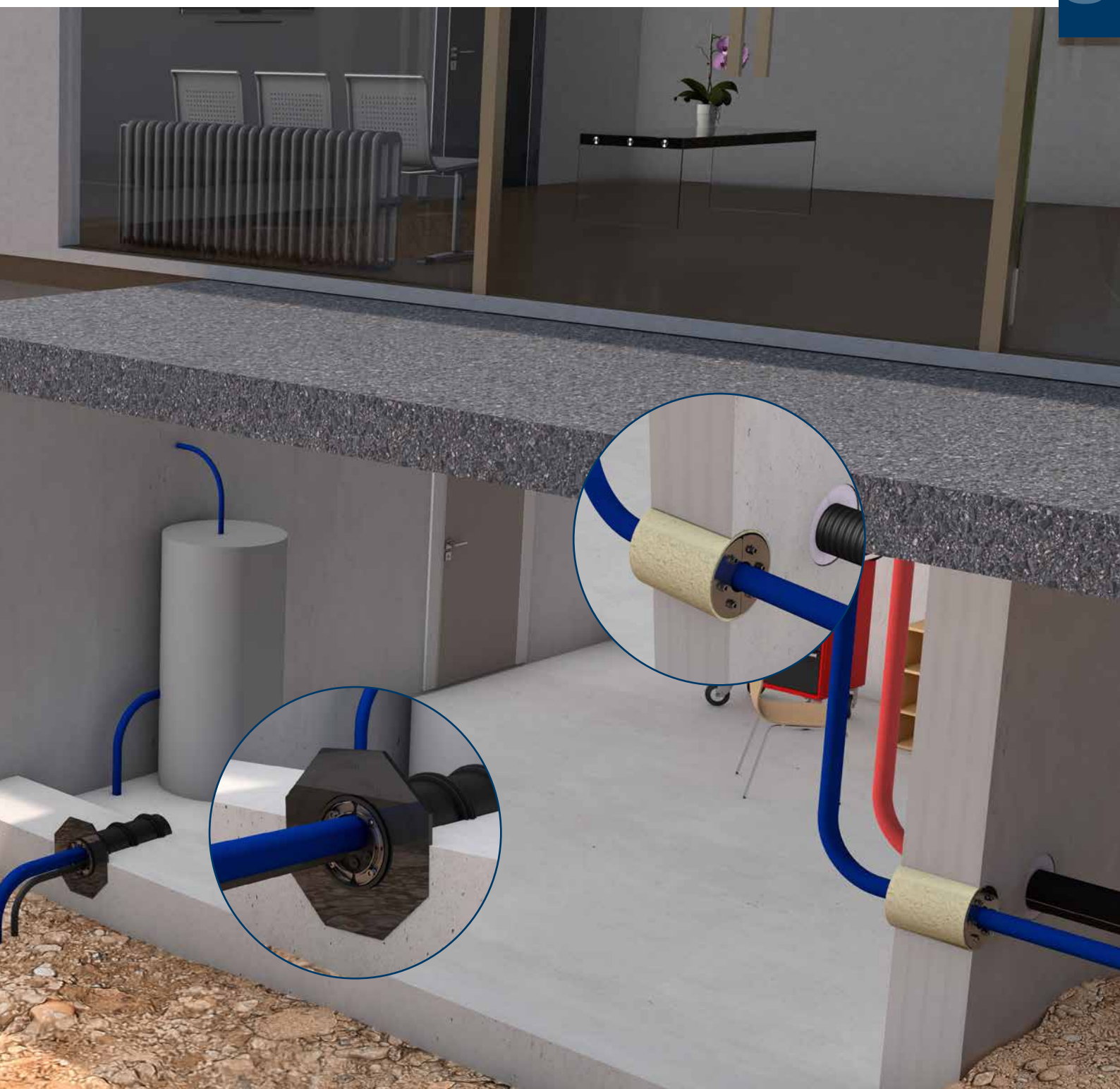
## 02 Wall sleeves

Effective building protection starts long before construction begins - it starts in the planning of every wall opening. By considering cable and pipe penetrations, you lay the foundation for a secure, future-proof structure. Building entries are essential elements in protecting the building and ensuring long-lasting structural integrity.

As leading experts in innovative sealing technology, Hauff-Technik offers a complete range of wall sleeves engineered for reliability. Our products ensure dependable protection against the ingress of water and gas.

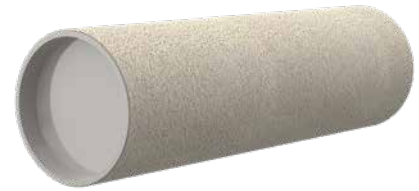


Whether connecting a waterproof membrane, preparing a new building or sealing an existing structure, Hauff-Technik delivers solutions for every requirement. With our portfolio of wall sleeves and sealing systems, we provide products for any wall entry – precise, resilient and ready for every challenge.



# Cement-coated wall sleeve

with special coating



## ZVR

For installation in waterproof concrete. Coating bonds homogeneously with the concrete.

### USP

- special coating creates a watertight bond with the concrete
- watertight connection to the concrete along the entire surface of the wall sleeve, due to special coating
- closing cover included

### Scope of delivery

- Wall sleeve with special counting

- 2 pieces of closing covers

### Dimensions

- Pipe length ≤ 600 mm: fully coated wall sleeve
- Pipe length > 600 mm: partially coated wall sleeve

### Tightness

- gastight and watertight



Wall sleeve ID (mm)	Wall sleeve OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
50	54	200	<b>ZVR50/200 fc</b>	1200050200	4052487201308
		400	<b>ZVR50/400 fc</b>	1200050400	4052487204897
80	95	200	<b>ZVR80/200 fc</b>	1200080200	4052487124195
		400	<b>ZVR80/400 fc</b>	1200080400	4052487124249
100	115	200	<b>ZVR100/200 fc</b>	1200100200	4052487124294
		400	<b>ZVR100/400 fc</b>	1200100400	4052487124348
125	142	200	<b>ZVR125/200 fc</b>	1200125200	4052487124393
		400	<b>ZVR125/400 fc</b>	1200125400	4052487124447
150	167	200	<b>ZVR150/200 fc</b>	1200150200	4052487124492
		400	<b>ZVR150/400 fc</b>	1200150400	4052487124546
200	219	200	<b>ZVR200/200 fc</b>	1200200200	4052487124591
		400	<b>ZVR200/400 fc</b>	1200200400	4052487124645
250	269	200	<b>ZVR250/200 fc</b>	1200250200	4052487124706
		400	<b>ZVR250/400 fc</b>	1200250400	4052487124751
300	321	200	<b>ZVR300/200 fc</b>	1200300200	4052487124812
		400	<b>ZVR300/400 fc</b>	1200300400	4052487124867

Standard lengths: 200, 240, 250, 300, 365, 400, 500 mm (other lengths on request)

The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)

For lengths > 600 mm, the cement-coated wall sleeve is coated on each side by 250 mm.

fc = fully coated, c = coated / partially coated on each side by 250mm



ZVR150 and ZVR200 set in concrete next to HSI150



ZVR200/300 fixed in formwork



ZVR150 und ZVR200 einbetoniert neben HSI150



# Fibre cement wall sleeve

## FZR

For setting in concrete or mortar. Outer grooves all round ensure a tight and force-fit bond with the wall.



Wall sleeve ID (mm)	Wall sleeve OD (mm)	Wall thickness (mm)	Article code	Article number
80	≤ 140	300	<b>FZR80/300</b>	1800080300
	≤ 140	500	<b>FZR80/500</b>	1800080500
100	≤ 160	300	<b>FZR100/300</b>	1800100300
	≤ 160	500	<b>FZR100/500</b>	1800100500
125	≤ 170	300	<b>FZR125/300</b>	1800125300
	≤ 170	500	<b>FZR125/500</b>	1800125500
150	≤ 205	300	<b>FZR150/300</b>	1800150300
	≤ 205	500	<b>FZR150/500</b>	1800150500
200	≤ 255	300	<b>FZR200/300</b>	1800200300
	≤ 255	500	<b>FZR200/500</b>	1800200500
250	≤ 305	300	<b>FZR250/300</b>	1800250300
	≤ 305	500	<b>FZR250/500</b>	1800250500
300	≤ 355	300	<b>FZR300/300</b>	1800300300
	≤ 355	500	<b>FZR300/500</b>	1800300500
350	≤ 405	300	<b>FZR350/300</b>	1800350300
	≤ 405	500	<b>FZR350/500</b>	1800350500
400	≤ 470	300	<b>FZR400/300</b>	1800400300
	≤ 470	500	<b>FZR400/500</b>	1800400500
450	≤ 520	300	<b>FZR450/300</b>	1800450300
	≤ 520	500	<b>FZR450/500</b>	1800450500
500	≤ 575	300	<b>FZR500/300</b>	1800500300
	≤ 575	500	<b>FZR500/500</b>	1800500500
600	≤ 680	300	<b>FZR600/300</b>	1800600300
	≤ 680	500	<b>FZR600/500</b>	1800600500
700	≤ 800	300	<b>FZR700/300</b>	1800700300
	≤ 800	500	<b>FZR700/500</b>	1800700500
800	≤ 910	300	<b>FZR800/300</b>	1800800300
	≤ 910	500	<b>FZR800/500</b>	1800800500
900	≤ 1.020	300	<b>FZR900/300</b>	1800900300
	≤ 1.020	500	<b>FZR900/500</b>	1800900500
1000	≤ 1.130	300	<b>FZR1000/300</b>	1801000300

Wall sleeve ID (mm)	Wall sleeve OD (mm)	Wall thickness (mm)	Article code	Article number
1000	≤ 1.130	500	<b>FZR1000/500</b>	1801000500

Wall thickness 300 mm: The price is valid for wall sleeves with a wall thickness of up to 300 mm.  
 Wall thickness 500 mm: The price is valid for wall sleeves with a wall thickness of 400 to 500 mm.  
 The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)  
 Standard lengths: 200, 240, 250, 300, 365, 400, 500 mm (other lengths on request)



FZR400/300 Installation location sewage treatment plant



lengthwise watertight outer grooves



FZR100/240 - pipe section sealing

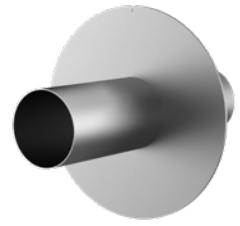
Wall sleeves

### Accessories

Figure	Item	Article code	Article number	GTIN
	Formwork covers for fibre cement wall sleeve	<b>FZR SH 80</b>	3030531417	4052487244435
		<b>FZR SH 100</b>	3030531418	4052487244459
		<b>FZR SH 125</b>	3030531419	4052487244473
		<b>FZR SH 150</b>	3030531420	4052487244497
		<b>FZR SH 200</b>	3030531421	4052487244510
		<b>FZR SH 250</b>	3030556066	4052487245555
		<b>FZR SH 300</b>	3030556072	4052487245579
		<b>FZR SH 350</b>	3030556073	4052487245593
		<b>FZR SH 400</b>	3030556078	4052487245616

# Stainless steel wall sleeve with puddle flange

for setting in concrete



## FUM A2

Puddle flange serves as water barrier and creates a force-fit connection.

### Scope of delivery

- with closing covers on both sides

### Tightness

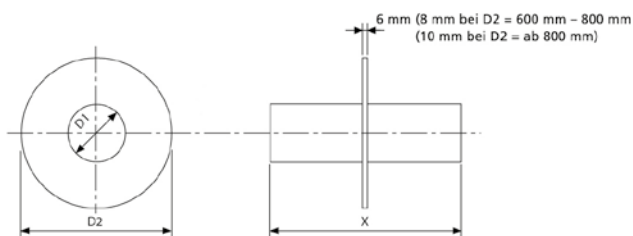
- gastight and watertight



### Dimensions

- Puddle flange outer diameter is equivalent to the inner diameter of the casing + approx. 210 mm (for one entry. See the brochure for detailed information)

Wall sleeve ID (mm)	External diameter of flange (mm)	Length (mm)	Article code	Article number	GTIN
100	304	200	<b>FUM1x100/100/100 A2</b>	911109800	4052487137249
	304	250	<b>FUM1x100/125/125 A2</b>	911110000	4052487021524
	304	300	<b>FUM1x100/150/150 A2</b>	911120000	4052487021531
150	354	200	<b>FUM1x150/100/100 A2</b>	911309800	4052487137317
	354	250	<b>FUM1x150/125/125 A2</b>	911310000	4052487021623
	354	300	<b>FUM1x150/150/150 A2</b>	911320000	4052487021630
200	404	200	<b>FUM1x200/100/100 A2</b>	911409800	4052487137348
	404	250	<b>FUM1x200/125/125 A2</b>	911410000	4052487021678
	404	300	<b>FUM1x200/150/150 A2</b>	911420000	4052487021685
250	454	200	<b>FUM1x250/100/100 A2</b>	911509800	4052487137379
	454	250	<b>FUM1x250/125/125 A2</b>	911510000	4052487021722



D1: wall sleeve Ø, D2: external diameter of flange

# Universal wall sleeve

for any type of wall

## UFR

Allows sealing in all wall types thanks to the combination of a flange and 3-ribbed seals. For setting in concrete, closed on both sides ready for installation.



### USP

- flange for easy application of polymer-modified bitumen thick coatings
- Tested solution for use with pre-applied waterproofing membrane
- can be used in all types of walls

- 3 pieces of 3-ribbed seal
- 2 pieces of closing covers

### Dimensions

- Flange all-around: 50mm

### Tightness



- gastight and watertight



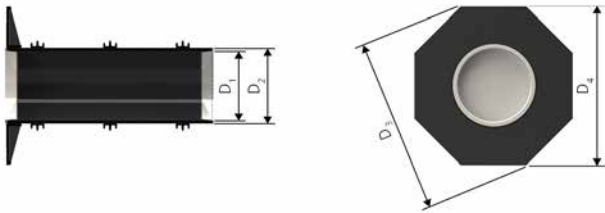
### Scope of delivery

- 1 piece of wall sleeve with flange

Figure	Wall sleeve ID (mm)	Wall sleeve OD (mm)	flange edge dimension (mm)	flange surface dimension (mm)	Lenght (mm)	Article code	Packing unit	Article number	GTIN
	100	110	227	210	200	<b>UFR100/200</b>	1	3030300244	4052487216098
					240	<b>UFR100/240</b>	1	3030300245	4052487216104
					250	<b>UFR100/250</b>	1	3030300246	4052487216111
					300	<b>UFR100/300</b>	1	3030300247	4052487216128
					365	<b>UFR100/365</b>	1	3030300248	4052487216135
					400	<b>UFR100/400</b>	1	3030300249	4052487216142
					500	<b>UFR100/500</b>	1	3030300250	4052487216159
	150	162	282	260	200	<b>UFR150/200</b>	1	3030300251	4052487216166
					240	<b>UFR150/240</b>	1	3030300252	4052487216173
					250	<b>UFR150/250</b>	1	3030300253	4052487216180
					300	<b>UFR150/300</b>	1	3030300254	4052487216197
					365	<b>UFR150/365</b>	1	3030300255	4052487216203
					400	<b>UFR150/400</b>	1	3030300256	4052487216210
					500	<b>UFR150/500</b>	1	3030300257	4052487216227
	200	214	336	311	200	<b>UFR200/200</b>	1	3030300258	4052487216234
					240	<b>UFR200/240</b>	1	3030300259	4052487216241
					250	<b>UFR200/250</b>	1	3030300260	4052487216258
					300	<b>UFR200/300</b>	1	3030300261	4052487216265
					365	<b>UFR200/365</b>	1	3030300262	4052487216272
					400	<b>UFR200/400</b>	1	3030300263	4052487216289
					500	<b>UFR200/500</b>	1	3030300264	4052487216296
	250	264	416	384	200	<b>UFR250/200</b>	1	2800250200	4052487155526

Figure	Wall sleeve ID (mm)	Wall sleeve OD (mm)	flange edge dimension (mm)	flange surface dimension (mm)	Lenght (mm)	Article code	Packing unit	Article number	GTIN
	250	264	416	384	240	<b>UFR250/240</b>	1	2800250240	4052487155540
					250	<b>UFR250/250</b>	1	2800250250	4052487155557
					300	<b>UFR250/300</b>	1	2800250300	4052487155564
					365	<b>UFR250/365</b>	1	2800250365	4052487155571
					400	<b>UFR250/400</b>	1	2800250400	4052487155588
					500	<b>UFR250/500</b>	1	2800250500	4052487155625
	300	316	472	436	200	<b>UFR300/200</b>	1	2800030200	4052487154031
					240	<b>UFR300/240</b>	1	2800030240	4052487154048
					250	<b>UFR300/250</b>	1	2800030250	4052487154055
					300	<b>UFR300/300</b>	1	2800030300	4052487154062
					365	<b>UFR300/365</b>	1	2800030365	4052487154079
					400	<b>UFR300/400</b>	1	2800030400	4052487154086
					500	<b>UFR300/500</b>	1	2800030500	4052487154123

Customised lengths available



D1: wall sleeve Øi, D2: wall sleeve Øa, D3: flange edge dimension, D4: flange surface dimension



concreted UFR with PMBC



UFR in formwork

# Bellmouth Wall Sleeve

for setting in concrete



## BWS

For installation flush with the formwork and use of standard press seals.

### USP

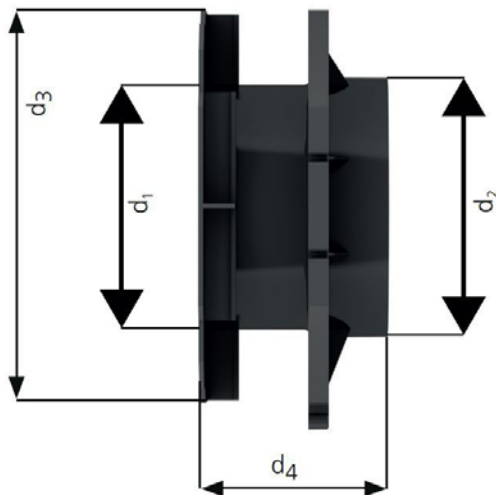
- frame connection system for creation of packages on site – compatible with all three sizes

- easy adjustment to the wall thickness on site – using available pipes

### Tightness

- gastight and watertight up to 1.0 bar right after concreting

Wall sleeve ID (mm)	Wall sleeve OD (mm)	flange surface dimension (mm)	Minimum wall thickness (mm)	Article code	Article number	GTIN
100	110	200	120	<b>BWS100/110</b>	827030100	4052487196024
150	160	250	120	<b>BWS150/160</b>	827030150	4052487196031
200	200	300	120	<b>BWS200/200</b>	827030200	4052487196048



D1: wall sleeve Øi, D2: wall sleeve Øa, D3: flange surface dimension, D4: Minimum wall thickness

# Wall sleeve with foldable rubber sleeve

for setting in concrete and connecting cable ducts



## BWS KMA

### USP

- elastic and firmly supported connection due to increased insertion depth, even with deflection of the

cable duct

- press seal installation on the inside

### Tightness

- gastight and watertight

Pipe OD	Wall thickness (mm)	Article code	Article number	GTIN
110-116	200	<b>BWS100 KMA116/200</b>	3030578586	4052487247900
110-116	250	<b>BWS100 KMA116/250</b>	3030578791	4052487247917
110-116	300	<b>BWS100 KMA116/300</b>	3030578792	4052487247924
110-116	350	<b>BWS100 KMA116/350</b>	3030578793	4052487247931
110-116	365	<b>BWS100 KMA116/365</b>	3030578794	4052487247948
114-127	200	<b>BWS150 KMA127/200</b>	3030618576	4052487250719
114-127	250	<b>BWS150 KMA127/250</b>	3030643079	4052487250726
114-127	300	<b>BWS150 KMA127/300</b>	3030643304	4052487250733
114-127	350	<b>BWS150 KMA127/350</b>	3030643306	4052487250740
114-127	400	<b>BWS150 KMA127/400</b>	3030643307	4052487250757
114-127	450	<b>BWS150 KMA127/450</b>	3030643308	4052487250764
114-127	500	<b>BWS150 KMA127/500</b>	3030643309	4052487250771
160-172	200	<b>BWS150 KMA172/200</b>	3030583376	4052487248044
160-172	250	<b>BWS150 KMA172/250</b>	3030584104	4052487248051
160-172	300	<b>BWS150 KMA172/300</b>	3030584105	4052487248068
160-172	350	<b>BWS150 KMA172/350</b>	3030584106	4052487248075
160-172	365	<b>BWS150 KMA172/365</b>	3030584108	4052487248082
200-207	200	<b>BWS200 KMA207/200</b>	3030572856	4052487247955
200-207	250	<b>BWS200 KMA207/250</b>	3030579323	4052487247962
200-207	300	<b>BWS200 KMA207/300</b>	3030579324	4052487247979
200-207	350	<b>BWS200 KMA207/350</b>	3030579325	4052487247986
200-207	365	<b>BWS200 KMA207/365</b>	3030579326	4052487247993
220-228	200	<b>BWS200 KMA228/200</b>	3030572588	4052487248099
220-228	250	<b>BWS200 KMA228/250</b>	3030579339	4052487248006
220-228	300	<b>BWS200 KMA228/300</b>	3030579340	4052487248013
220-228	350	<b>BWS200 KMA228/350</b>	3030579341	4052487248020
220-228	365	<b>BWS200 KMA228/365</b>	3030579342	4052487248037

When connecting corrugated cable ducts, clip rings must be ordered separately. When ordering, please specify duct type and manufacturer.

# Connection wall sleeve

## AFR 100

For the direct connection of a smooth duct DN 110 with plug-in/glue-in socket.



### USP

- integrated flange connection
- pressure-tight after concreting

### Scope of delivery

- 1 piece of rubber sleeve with integrated 3-ribbed seal
- 1 piece of clamping strap

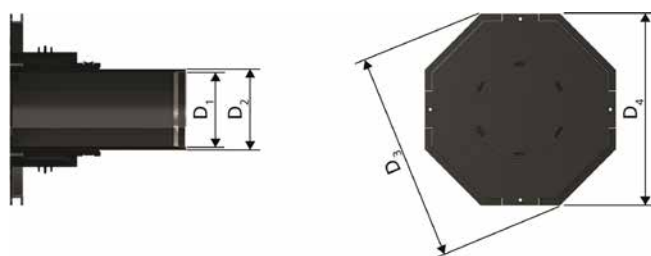
- 1 piece of sleeve cover with flange and blind cover for knock in
- 1 piece of closing cover
- 1 piece of plastic pipe DN 110 (everything pre-mounted ready for installation)



### Tightness

- gastight and watertight
- radon-proof

Wall sleeve ID (mm)	Wall sleeve OD (mm)	flange edge dimension (mm)	flange surface dimension (mm)	Wall thickness (mm)	Article code	Article number	GTIN
100	110	290	260	200	<b>AFR 100/200</b>	3030300004	4052487143011
				240	<b>AFR 100/240</b>	3030300005	4052487143028
				250	<b>AFR 100/250</b>	3030300006	4052487143035
				300	<b>AFR 100/300</b>	3030300007	4052487143042
				365	<b>AFR 100/365</b>	3030300008	4052487143059
				400	<b>AFR 100/400</b>	3030300009	4052487143066
				500	<b>AFR 100/500</b>	3030300010	4052487143073



D1: wall sleeve Øi, D2: wall sleeve Øa, D3: flange edge dimension, D4: flange surface dimension



Casing tube for cable conduit connection

# Connection wall sleeve

for installation in double walls/element walls

## AFRE 100

For the direct connection of a smooth duct DN 110 with plug-in/glue-in socket.



### USP

- integrated flange connection
- pressure-tight after concreting

### Scope of delivery

- 1 piece of rubber sleeve with integrated 3-ribbed seal
- 1 piece of clamping strap
- 1 piece of sleeve cover with flange and blind cover for knock in

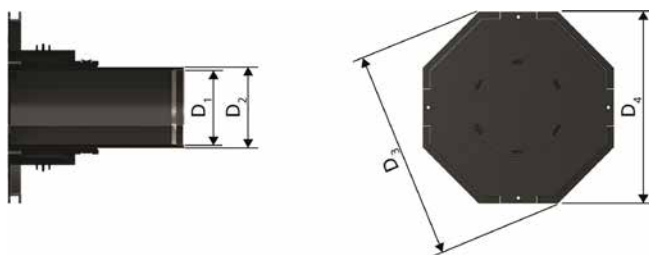
- 2 additional 3-ribbed seals
- 1 piece of closing cover
- 1 piece of plastic pipe DN 110 (everything pre-mounted ready for installation)



### Tightness

- gastight and watertight
- radon-proof

Wall sleeve ID (mm)	Wall sleeve OD (mm)	flange edge dimension (mm)	flange surface dimension (mm)	Wall thickness (mm)	Article code	Article number	GTIN
100	110	290	260	240	<b>AFRE 100/240</b>	3030300011	4052487213653
				250	<b>AFRE 100/250</b>	3030300012	4052487139618
				300	<b>AFRE 100/300</b>	3030300013	4052487139625
				365	<b>AFRE 100/365</b>	3030300014	4052487139632
				400	<b>AFRE 100/400</b>	3030300015	4052487139649
				500	<b>AFRE 100/500</b>	3030300016	4052487139656



D1: wall sleeve Øi, D2: wall sleeve Øa, D3: flange edge dimension, D4: flange surface dimension



# Renovation wall sleeve

## SFR



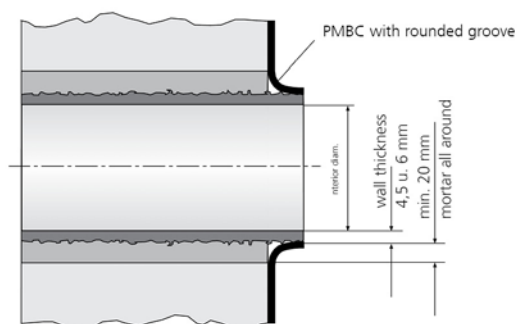
For retrofit installation in bricks or concrete walls.

### Dimensions

- Wall thickness: 4, 5 and 6 mm

Wall sleeve ID (mm)	Wall sleeve OD (mm)	Minimum drilling (mm)	Lenght (mm)	Article code	Article number	GTIN
100	110	200	300	<b>SFR100/300</b>	930000050	4052487025263
			500	<b>SFR100/500</b>	930000080	4052487025294
			1000	<b>SFR100/1000</b>	930000110	4052487025324
150	162	250	300	<b>SFR150/300</b>	930000140	4052487025362
			500	<b>SFR150/500</b>	930000160	4052487025386
			1000	<b>SFR150/1000</b>	930000180	4052487025409
200	214	300	300	<b>SFR200/300</b>	930000220	4052487025447
			500	<b>SFR200/500</b>	930000240	4052487025461
			1000	<b>SFR200/1000</b>	930000260	4052487025485

Other wall thicknesses available on request.



SFR - for coving connection with PMBC thick coating - installation according to DIN 18533



SFR subsequently incorporated into the masonry

02 Wall sleeves

# Fibre cement wall sleeve

split

FZRG



Consisting of two half-forms for retrofit sealing of already installed cables or pipes. For setting in concrete or mortar. Outer grooves all round ensure a tight and force-fit bond with the wall.

Wall sleeve ID (mm)	Wall sleeve OD (mm)	Wall thickness (mm)	Article code	Article number
80	≤ 140	300	<b>FZRG80/300</b>	1802080300
	≤ 140	500	<b>FZRG80/500</b>	1802080500
100	≤ 160	300	<b>FZRG100/300</b>	1802100300
	≤ 160	500	<b>FZRG100/500</b>	1802100500
125	≤ 170	300	<b>FZRG125/300</b>	1802125300
	≤ 170	500	<b>FZRG125/500</b>	1802125500
150	≤ 195	300	<b>FZRG150/300</b>	1802150300
	≤ 195	500	<b>FZRG150/500</b>	1802150500
200	≤ 255	300	<b>FZRG200/300</b>	1802200300
	≤ 255	500	<b>FZRG200/500</b>	1802200500
250	≤ 305	300	<b>FZRG250/300</b>	1802250300
	≤ 305	500	<b>FZRG250/500</b>	1802250500
300	≤ 355	300	<b>FZRG300/300</b>	1802300300
	≤ 355	500	<b>FZRG300/500</b>	1802300500
350	≤ 405	300	<b>FZRG350/300</b>	1802350300
	≤ 405	500	<b>FZRG350/500</b>	1802350500
400	≤ 470	300	<b>FZRG400/300</b>	1802400300
	≤ 470	500	<b>FZRG400/500</b>	1802400500
450	≤ 520	300	<b>FZRG450/300</b>	1802450300
	≤ 520	500	<b>FZRG450/500</b>	1802450500
500	≤ 575	500	<b>FZRG500/500</b>	1802500500
600	≤ 680	300	<b>FZRG600/300</b>	1802600300
	≤ 680	500	<b>FZRG600/500</b>	1802600500
700	≤ 800	300	<b>FZRG700/300</b>	1802700300
	≤ 800	500	<b>FZRG700/500</b>	1802700500
800	≤ 910	300	<b>FZRG800/300</b>	1802800300
	≤ 910	500	<b>FZRG800/500</b>	1802800500

Wall thickness 300 mm: The price is valid for wall sleeves with a wall thickness of up to 300 mm.  
 Wall thickness 500 mm: The price is valid for wall sleeves with a wall thickness of 400 to 500 mm.  
 The article numbers, article codes and GTINs for the exact wall thicknesses can be found at: [www.hauff-technik.com](http://www.hauff-technik.com)  
 Standard lengths: 200, 240, 250, 300, 365, 400, 500 mm (other lengths on request)



FZRG350/300 - installation



FZRG150/350 - refurbishment in masonry



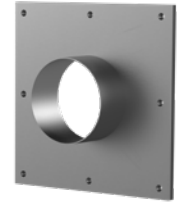
FZRG350/300 with levelling compound from installation set MSET FZRG

### Accessories

Figure	Item	Article code	Article number	GTIN
	Assembly kit for fibre cement wall sleeve FZRG	<b>MSET FZRG</b>	3030558799	4052487246026

# Stainless steel flange

for retrofit installation



## FA A2



For fixing over existing cut-outs/penetrations in walls or floor slabs.

### Scope of delivery

- 1 piece of stainless steel flange
- 1 piece of surface seal
- Fastening elements

### Dimensions

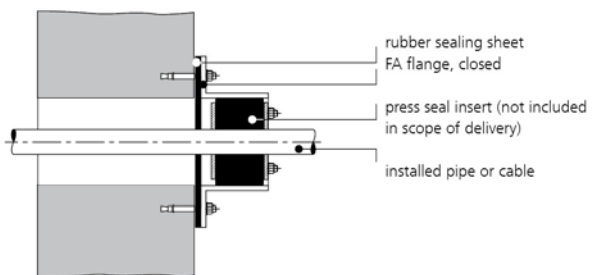
- Standard flange OD is equivalent to the corresponding wall sleeve ID + approx. 150 mm (for one entry)
- Standard upper length: 80 mm

Figure	Wall sleeve ID (mm)	Flange standard dimensions (mm)	Article code	Article number	GTIN
	80	170	<b>FA1x80/80/0 A2</b>	910820000	4052487021012
	100	185	<b>FA1x100/80/0 A2</b>	910830000	4052487021029
	125	205	<b>FA1x125/80/0 A2</b>	910840000	4052487021036
	150	225	<b>FA1x150/80/0 A2</b>	910850000	4052487021043
	200	350	<b>FA1x200/80/0 A2</b>	910870000	4052487021067
	250	400	<b>FA1x250/80/0 A2</b>	910880000	4052487021081
	300	450	<b>FA1x300/80/0 A2</b>	910890000	4052487021098
	350	500	<b>FA1x350/80/0 A2</b>	910893500	4052487021104
	400	550	<b>FA1x400/80/0 A2</b>	910900000	4052487021111
	450	600	<b>FA1x450/80/0 A2</b>	910900002	4052487021128
	500	650	<b>FA1x500/80/0 A2</b>	910900003	4052487021135

Customized dimensions available on request.

Fixing elements are included in scope of delivery.

The flange is supplied in square design up to wall sleeve inner diameter 150 mm and in round design from wall sleeve inner diameter 200 mm.



**Accessories**

Figure	Item	Article code	Article number	GTIN
	Sealant	<b>Hybrid 7057Z</b>	3030537533	4052487248617

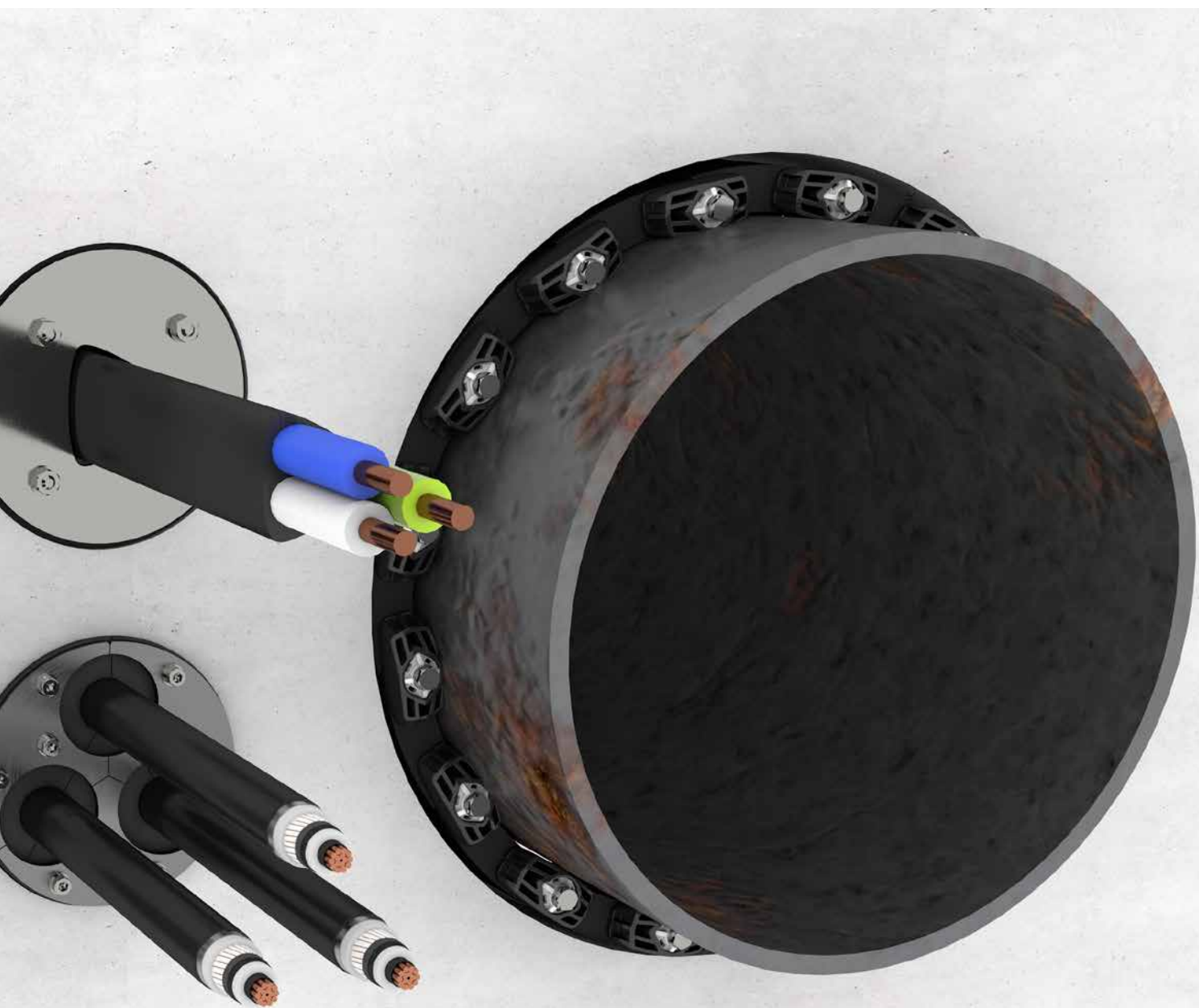
## 03 Press seals for cables and pipes

The innovative press seals from Hauff-Technik provide you with every possible opportunity for reliable sealing of core drills or wall sleeves for one or a number of cables and pipes.

These range from closed seal inserts for first-time installation to split seal inserts for retrofit sealing of cables that have already been laid.



We can provide the ideal press seal for every requirement and task, be it tailor-made to the millimetre or suitable for universal use on site, round, oval or even square. Quick and cost-effective.



# Standard press seal

with super segmented ring technology and polymer press plates



## HRK SSG b40 PAGF/A4/EPDM

Press seal for sealing cables in core drills or sleeves. Split design for sealing new installed cables or cables that have already been installed.

### USP

- integrated segmented-ring technology for individual adjustment to cable diameters on site
- form-fit design of the press plates

### Scope of delivery

- Blind plug (for multiple cable entries)

- 1 piece of knife
- 1 piece of lubricant stick

### Dimensions

- Sealing width: 40 mm

### Tightness

- gastight and watertight
- radon-proof





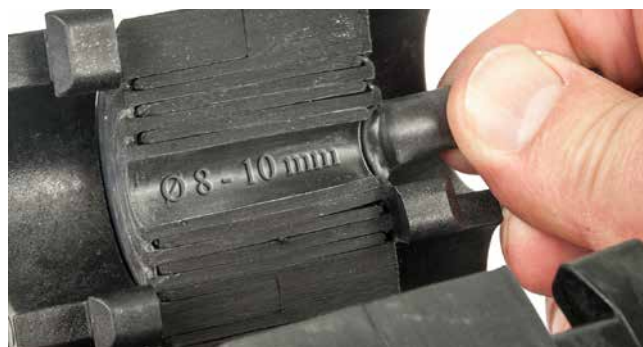
Figure	Wall sleeve/ core drilled hole ID (mm)	Openings	Carrier pipe Øa (mm)	Article code	Packing unit	Article number	GTIN
	100	1	18-65	<b>HRK100 SSG 1x18-65 b40 PAGF/A4/EPDM</b>	1	3030300044	4052487129268
9					4052487223591		
	100	4	8-30	<b>HRK100 SSG 4x8-30 b40 PAGF/A4/EPDM</b>	1	3030300045	4052487129251
9					4052487223607		

Figure	Wall sleeve/ core drilled hole ID (mm)	Openings	Carrier pipe $\varnothing_a$ (mm)	Article code	Packing unit	Article number	GTIN	
	150	1	36-70	<b>HRK150 SSG 1x36-70 b40 PAGF/A4/EPDM<sup>1)</sup></b>	1	3030300046	4052487223614	
					8		4052487223621	
70-112			<b>HRK150 SSG 1x70-112 b40 PAGF/A4/EPDM<sup>1)</sup></b>	1	3030300047	4052487129305		
				8		4052487223638		
		3	24-54	<b>HRK150 SSG 3x24-54 b40 PAGF/A4/EPDM</b>	1	1600101630	4052487129275	
					8		4052487220057	
		6	10-36	<b>HRK150 SSG 6x10-36 b40 PAGF/A4/EPDM</b>	1	3030300048	4052487126373	
					8		4052487223645	
		200	1	110-162	<b>HRK200 SSG 1x110-162 b40 PAGF/A4/EPDM<sup>1)</sup></b>	1	3030300049	4052487223652
						8		4052487223669
	3		40-72	<b>HRK200 SSG 3x40-72 b40 PAGF/A4/EPDM</b>	1	3030300050	4052487134576	
					8		4052487223676	

<sup>1)</sup> without blind plug for unoccupied openings



press plate with form-fitting connection



Segments with diameter marking

# Standard press seal

with segmented ring technology

## HRD SG b40 A2/EPDM



Press seal for sealing cables in core drills or sleeves. Split design for sealing new installed cables or cables that have already been installed.

### USP

- segmented-ring technology for adjustment to pipe diameters on site

### Scope of delivery

- Blind plugs
- 1 piece of lubricant stick

### Dimensions

- Sealing width: 40 mm
- Press plates: 5 mm

### Tightness

- gastight and watertight
- radon-proof



Figure	Wall sleeve/ core drilled hole ID (mm)	Number of cables/ medium overall	Openings	Carrier pipe Øa (mm)	Article code	Article number	GTIN	
	80	1	1	6-41	<b>HRD80 SG 1x6-41 b40 A2/EPDM</b>	2700100108	4052487000109	
	100	1	1	24-52	<b>HRD100 SG 1x24-52 b40 A2/EPDM<sup>1)</sup></b>	2700101000	4052487168038	
		4	4	8-30	<b>HRD100 SG 4x8-30 b40 A2/EPDM<sup>1)</sup></b>	2700102000	4052487000130	
		8	8	4-16,5	<b>HRD100 SG 8x4-16,5 b40 A2/EPDM</b>	2700103000	4052487000147	
		2		1	22-50	<b>HRD100 SG 1x22-50+1x5-12 b40 A2/EPDM</b>	3030548511	4052487245401
				1	5-12			
		5		2	8-30	<b>HRD100 SG 2x8-30+3x4-16,5 b40 A2/EPDM</b>	2700103500	4052487000154
				3	4-16,5			
	6		2	9-17	<b>HRD100 SG 2x9-17+4x5-15 b40 A2/EPDM</b>	3030474668	4052487241274	
			4	5-15				

Figure	Wall sleeve/ core drilled hole ID (mm)	Number of cables/ medium overall	Openings	Carrier pipe Øa (mm)	Article code	Article number	GTIN
	104	1	1	24-52	<b>HRD104 SG 1x24-52 b40 A2/EPDM</b>	2700103615	4052487129695
		4	4	8-30	<b>HRD104 SG 4x8-30 b40 A2/EPDM</b>	2700103610	4052487127370
		8	8	4-16,5	<b>HRD104 SG 8x4-16,5 b40 A2/EPDM</b>	2700103620	4052487129213
	125	3	3	10-40	<b>HRD125 SG 3x10-40 b40 A2/EPDM</b>	2700103750	4052487063913
	125	6	6	6-31	<b>HRD125 SG 6x6-31 b40 A2/EPDM</b>	2700103800	4052487000161
		10	10	4-16,5	<b>HRD125 SG 10x4-16,5 b40 A2/EPDM</b>	2700103850	4052487000178

03 Press seals

Figure	Wall sleeve/ core drilled hole ID (mm)	Number of cables/ medium overall	Openings	Carrier pipe Øa (mm)	Article code	Article number	GTIN
	150	1	1	12-75	<b>HRD150 SG 1x12-75 b40 A2/EPDM<sup>1)</sup></b>	2700103996	4052487063951
			1	75-110	<b>HRD150 SG 1x75-110 b40 A2/EPDM<sup>1)</sup></b>	2700103998	4052487063968
		3	3	22-54	<b>HRD150 SG 3x22-54 b40 A2/EPDM<sup>1)</sup></b>	2700104000	4052487000185
		6	6	8-35	<b>HRD150 SG 6x8-35 b40 A2/EPDM<sup>1)</sup></b>	2700105000	4052487000192
		9	9	6-25	<b>HRD150 SG 9x6-25 b40 A2/EPDM</b>	2700106000	4052487000208
		10	4	8-30	<b>HRD150 SG 4x8- 30+6x4-16,5 b40 A2/EPDM</b>	2700106500	4052487000215
	6		4-16,5				
	200	7	3	6-54	<b>HRD200 SG 3x6-54+4x6-26 b40 A2/EPDM</b>	2700107000	4052487000222
			4	6-26			
	200	15	7	10-32	<b>HRD200 SG 7x10- 32+8x3,5-16,5 b40 A2/ EPDM</b>	2700108000	4052487000239
	200	15	8	3,5-16,5	<b>HRD200 SG 7x10- 32+8x3,5-16,5 b40 A2/ EPDM</b>	2700108000	4052487000239

<sup>1)</sup> This assignment is also available in the optimized HRK SSG technology.




HRD150 SG 6x8-36 5 - individually adjustable to diameters of cables



HRD150 SG installed in fibre cement wall sleeves

### Accessories

Figure	Item	Width (mm)	Article code	Article number	GTIN
	Adapter ring for retrofit sealing	40	<b>HRD150 SG/ARG</b>	5060120155	4052487233330

# Customized press seal

sealing width 30 mm

## HRD b30



Customised press seal in closed or split design for sealing new or already installed cables/pipes. The seal is manufactured according to customer specific dimensional specifications - e.g. eccentric, with overlapping flange or for multiple and mixed entries.

### Scope of delivery

- 1 piece of lubricant stick

### Dimensions



- Sealing width: 30 mm
- Press plates: 5 mm

- For core drills/wall sleeves  $\varnothing$ : 40 mm and higher
- for cables/pipes from  $\varnothing$ a: 5 mm



### Tightness

- gastight and watertight
- radon-proof

Figure	Wall sleeve/ core drilled hole ID (mm)	Article code
	50	HRD50 ZxD b30 A2/EPDM55
	60	HRD60 ZxD b30 A2/EPDM55
	70	HRD70 ZxD b30 A2/EPDM55
	80	HRD80 ZxD b30 A2/EPDM55
	100	HRD100 ZxD b30 A2/EPDM55
	125	HRD125 ZxD b30 A2/EPDM55
	150	HRD150 ZxD b30 A2/EPDM55
	200	HRD200 ZxD b30 A2/EPDM55
	250	HRD250 ZxD b30 A2/EPDM55
	50	HRD50 G ZxD b30 A2/EPDM55
	60	HRD60 G ZxD b30 A2/EPDM55
	70	HRD70 G ZxD b30 A2/EPDM55
	80	HRD80 G ZxD b30 A2/EPDM55
	100	HRD100 G ZxD b30 A2/EPDM55
	125	HRD125 G ZxD b30 A2/EPDM55
	150	HRD150 G ZxD b30 A2/EPDM55
	200	HRD200 G ZxD b30 A2/EPDM55
	250	HRD250 G ZxD b30 A2/EPDM55
	300	HRD300 G ZxD b30 A2/EPDM55

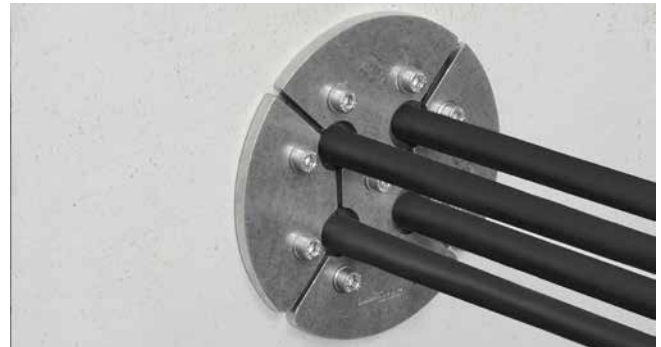
Z = Number of passes, D = Measured outer diameter of the media line  
Customized diameters available.

For maximum cable configuration please refer to configuration table

Further variants: Blind sealing element, order no.: e.g. HRD117 1x0 b30. Split, eccentric sealing insert, order no.: e.g. HRD156 PV G 1x45 ex23. All individual press seal variants are also available with an overlapping flange.



HRD150 G b30 with multiple entry



HRD200 G b30 installed in a steel pipe

# Customized press seal

sealing width 60 mm

## HRD b60



Customised press seal in closed or split design for sealing new or already installed cables/pipes. The seal is manufactured according to customer specific dimensional specifications - e.g. eccentric, with overlapping flange or for multiple and mixed entries.

### Scope of delivery

- 1 piece of lubricant stick

### Dimensions

- Sealing width: 60 mm
- Press plates: 5 mm

- For core drills/wall sleeves  $\varnothing$ : 40 mm and higher
- for cables/pipes from  $\varnothing$ a: 5 mm



### Tightness

- gastight and watertight
- radon-proof

Figure	Wall sleeve/ core drilled hole ID (mm)	Article code
	50	HRD50 ZxD b60 A2/EPDM55
	60	HRD60 ZxD b60 A2/EPDM55
	70	HRD70 ZxD b60 A2/EPDM55
	80	HRD80 ZxD b60 A2/EPDM55
	100	HRD100 ZxD b60 A2/EPDM55
	125	HRD125 ZxD b60 A2/EPDM55
	150	HRD150 ZxD b60 A2/EPDM55
	200	HRD200 ZxD b60 A2/EPDM55
	250	HRD250 ZxD b60 A2/EPDM55
	50	HRD50 G ZxD b60 A2/EPDM55
	60	HRD60 G ZxD b60 A2/EPDM55
	70	HRD70 G ZxD b60 A2/EPDM55
	80	HRD80 G ZxD b60 A2/EPDM55
	100	HRD100 G ZxD b60 A2/EPDM55
	125	HRD125 G ZxD b60 A2/EPDM55
	150	HRD150 G ZxD b60 A2/EPDM55
	200	HRD200 G ZxD b60 A2/EPDM55
	250	HRD250 G ZxD b60 A2/EPDM55
	300	HRD300 G ZxD b60 A2/EPDM55

Z = Number of passes, D = Measured outer diameter of the media line  
Further sizes up to  $\varnothing$  1500 mm available on request with short lead times.  
Customized diameters available.

For maximum cable configuration please refer to configuration table

Further variants: Blind sealing element, order no.: e.g. HRD117 1x0 b30. Split, eccentric sealing insert, order no.: e.g. HRD156 PV G 1x45 ex23. All individual press seal variants are also available with an overlapping flange.



HRD100 0 b60 blind seal



HRD150 G 2x18+2x27

# Customized press seal

with integrated test valve

## HRD PV b60

Individual press seal with integrated test valve to test leakage without additional effort directly after installation and also for simple error search in the event of leakages. Available in a closed or split version to seal cables which have been installed or are to be installed. The seal is manufactured according to customer specific dimensional specifications - e.g. eccentric, with overlapping flange or for multiple entries.



### USP

- with integrated test valve
- simple monitoring/control tests possible

### Scope of delivery

- 1 piece of lubricant stick
- 1 piece of Identification sign

### Dimensions

- Sealing width: 2 x 30 mm
- Press plates: 5 mm
- For core drills/wall sleeves  $\varnothing$ : 80 - 300 mm



### Tightness

- gastight and watertight
- radon-proof

Figure	Wall sleeve/ core drilled hole ID (mm)	Article code
	80	HRD80 PV ZxD b60 A2/EPDM55
	100	HRD100 PV ZxD b60 A2/EPDM55
	125	HRD125 PV ZxD b60 A2/EPDM55
	150	HRD150 PV ZxD b60 A2/EPDM55
	200	HRD200 PV ZxD b60 A2/EPDM55
	250	HRD250 PV ZxD b60 A2/EPDM55
	300	HRD300 PV ZxD b60 A2/EPDM55
	80	HRD80 PV G ZxD b60 A2/EPDM55
	100	HRD100 PV G ZxD b60 A2/EPDM55
	125	HRD125 PV G ZxD b60 A2/EPDM55
	150	HRD150 PV G ZxD b60 A2/EPDM55
	200	HRD200 PV G ZxD b60 A2/EPDM55
	250	HRD250 PV G ZxD b60 A2/EPDM55
	300	HRD300 PV G ZxD b60 A2/EPDM55

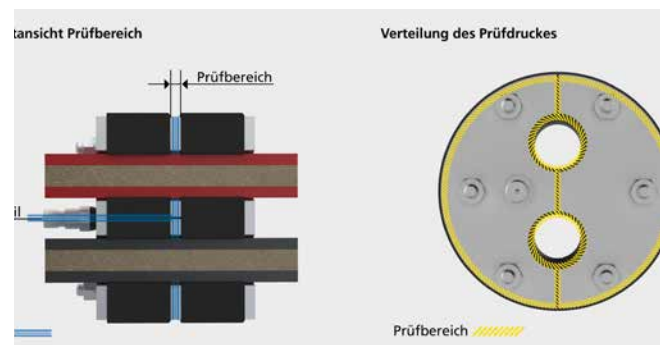
Z = Number of passes, D = Measured outer diameter of the media line  
Customized diameters available.

For maximum cable configuration please refer to configuration table

Further variants: Blind sealing element, order no.: e.g. HRD117 1x0 b30. Split, eccentric sealing insert, order no.: e.g. HRD156 PV G 1x45 ex23. All individual press seal variants are also available with an overlapping flange.



HRD150 PV G in core drill



HRD150 PV G in core drill

# Test pump with pressure gauge

for MSH PolySafe/FW Basic and HRD PV



## DIGIT PPM

Manual test air pump with digital pressure gauge (suitable up to 20 bar / 300 psi). Suitable for leak testing of individual press seals and multi-line building entries with integrated test valve.

### Scope of delivery

- includes compressed air hose with valve connection

Article code	Article number	GTIN
<b>DIGIT PPM</b>	1551001121	4052487168472



03 Press seals

# Modular seal

Modular pipe seal

## GKD



For sealing new or already installed pipes in core drill holes or wall sleeves. The modular design allows the use of all possible pipe types and diameter combinations.

### USP

- with integrated installation control - no torque wrench required
- no retightening required
- no loose parts thanks to moulded nuts

### Scope of delivery

- 1 piece of lubricant stick

### Tightness

- gastight and watertight
- radon-proof



### EPDM

Min. annular space (mm)	Max. annular space (mm)	Carrier pipe OD (mm)	Required wall thickness (mm)	Article code
12,7	16	21,3 - 323,9	75	X * GKD200 EPDM <sup>1)</sup>
16	20	25 - 323,9		X * GKD275 EPDM <sup>1)</sup>
18,5	23	58 - 463	100	X * GKD300 EPDM
23,25	26	60,3 - 463		X * GKD315 EPDM
24	30	152,2 - 716	110	X * GKD325 EPDM
25,5	34	30 - 323,9	120	X * GKD340 EPDM
32	42	40 - 406,4		X * GKD360 EPDM
36,5	43	168,3 - 1230	150	X * GKD400 EPDM
37	48,5	60,3 - 323,9	140	X * GKD410 EPDM
29	36	177,8 - 1230	125	X * GKD425 EPDM
45	52	168,3 - 1230	150	X * GKD440 EPDM
41,3	48,5	108 - 1230		X * GKD475 EPDM
62	71,5	156 - 1230	165	X * GKD500 EPDM
58	63,5	177,8 - 1230		X * GKD525 EPDM
50	58	152 - 1230		X * GKD575 EPDM
90	100	304 - 3000	205	X * GKD615 EPDM
77	84	177,8 - 2020	165	X * GKD650 EPDM

<sup>1)</sup> Due to the small size of the pressure plates, nuts are not moulded and without installation control.

## NBR

Min. annular space (mm)	Max. annular space (mm)	Carrier pipe OD (mm)	Required wall thickness (mm)	Article code
12,7	16	21,3 - 323,9	75	X * GKD200 NBR <sup>1)</sup>
16	20	25 - 90		X * GKD275 NBR <sup>1)</sup>
18,5	23	58 - 463	100	X * GKD300 NBR
23,25	26	60,3 - 463		X * GKD315 NBR
24	30	152,2 - 716	110	X * GKD325 NBR
25,5	34	30 - 323,9	120	X * GKD340 NBR
32	42	40 - 406,4		X * GKD360 NBR
36,5	43	168,3 - 1230	150	X * GKD400 NBR
37	48,5	60,3 - 323,9	140	X * GKD410 NBR
29	36	177,8 - 1230	125	X * GKD425 NBR
45	52	168,3 - 1230	150	X * GKD440 NBR
41,3	48,5	108 - 1230		X * GKD475 NBR
62	71,5	156 - 1230	165	X * GKD500 NBR
58	63,5	177,8 - 1230		X * GKD525 NBR
50	58	152 - 1230		X * GKD575 NBR
90	100	304 - 3000	205	X * GKD615 NBR
77	84	177,8 - 2020	165	X * GKD650 NBR

<sup>1)</sup> Due to the small size of the pressure plates, nuts are not moulded and without installation control.

X = number of links, article number on demand.

The complete article number results from the number of links

For pipes

Carrier pipe OD (mm)	Number of segments	Type	Required wall thickness (mm)	Article number	GTIN
25-33	6	GKD275	75	3030420544	4052487240079
30-38	7	GKD275	75	3030474456	4052487240642
38-44	6	GKD200	75	3030438186	4052487240086
48-54	7	GKD200	75	3030426876	4052487240093
32-49	5	GKD340	120	3030474461	4052487240635
58-63	6	GKD300	100	1410030006	4052487159623
73-78	8	GKD315	100	1410031508	4052487144186
79-88	8	GKD300	100	1410030008	4052487144070
53-76	5	GKD410	140	3030412078	4052487232753
66-86	6	GKD360	120	3030420547	4052487240109
82-99	9	GKD340	120	3030421880	4052487240116
98-103	10	GKD315	100	1410031510	4052487142168
104-113	10	GKD300	100	1410030010	4052487142137
108-114	7	GKD475	150	1410047507	4052487142502
132-149	13	GKD340	120	3030430136	4052487240123
148-152	14	GKD315	100	1410031514	4052487144230
153-153	15	GKD315	100	1410031515	4052487144247
154-160	13	GKD300	100	1410030013	4052487144117
161-163	14	GKD300	100	1410030014	4052487144124
	9	GKD475	150	1410047509	4052487145398
167-167	10	GKD475	150	1410047510	4052487145404
169-177	7	GKD400	150	1410040007	4052487157506
178-189	7	GKD425	125	1410042507	4052487190152
190-202	9	GKD325	110	1410032509	4052487144377
203-203	19	GKD315	100	1410031519	4052487144285
204-213	17	GKD300	100	1410030017	4052487144155
157-167	7	GKD500	165	1410050007	4052487189576
168-176	8	GKD500	165	1410050008	4052487142564
178-184	8	GKD525	165	1410052508	4052487143554
185-195	10	GKD575	165	1410057510	4052487143561
203-203	11	GKD475	150	1410047511	4052487145411
204-208	8	GKD440	150	1410044008	4052487142434
204-217	12	GKD475	150	1410047512	4052487143189
218-227	9	GKD400	150	1410040009	4052487144568
228-242	9	GKD425	125	1410042509	4052487144834
243-252	11	GKD325	110	1410032511	4052487144391
253-253	23	GKD315	100	1410031523	4052487144322
254-263	21	GKD300	100	1410030021	4052487189224
207-222	9	GKD500	165	1410050009	4052487145855

Carrier pipe OD (mm)	Number of segments	Type	Required wall thickness (mm)	Article number	GTIN
223-234	9	GKD525	165	1410052509	4052487146142
235-245	12	GKD575	165	1410057512	4052487146470
	9	GKD440	150	1410044009	4052487145121
253-260	10	GKD440	150	1410044010	4052487145138
261-266	14	GKD475	150	1410047514	4052487143196
264-277	10	GKD400	150	1410040010	4052487144575
278-292	11	GKD425	125	1410042511	4052487144858
293-302	13	GKD325	110	1410032513	4052487144414
303-303	27	GKD315	100	1410031527	4052487144360
304-313	25	GKD300	100	1410030025	4052487189262
257-276	11	GKD500	165	1410050011	4052487145879
277-284	11	GKD525	165	1410052511	4052487146166
285-295	14	GKD575	165	1410057514	4052487146494
296-310	11	GKD440	150	1410044011	4052487145145
311-313	16	GKD475	150	1410047516	4052487145442
314-329	12	GKD400	150	1410040012	4052487143097
330-341	12	GKD425	125	1410042512	4052487144865
342-342	13	GKD425	125	1410042513	4052487144872
343-352	15	GKD325	110	1410032515	4052487144438
353-353	31	GKD315	100	1410031533	4052487189835
354-360	28	GKD300	100	1410030028	4052487189293
307-326	12	GKD500	165	1410050012	4052487145886
327-332	12	GKD525	165	1410052512	4052487146180
333-334	13	GKD525	165	1410052513	4052487146197
334-345	16	GKD575	165	1410057516	4052487146517
346-360	13	GKD440	150	1410044013	4052487145169
361-367	19	GKD475	150	1410047519	4052487145473
364-377	14	GKD400	150	1410040014	4052487144605
378-392	14	GKD425	125	1410042514	4052487143141
390-402	17	GKD325	110	1410032517	4052487144445
395-403	33	GKD315	100	1410031535	4052487189859
404-413	30	GKD300	100	1410030032	4052487189316
332-346	13	GKD650	165	1410065013	4052487147415
357-376	14	GKD500	165	1410050014	4052487145909
374-384	14	GKD525	165	1410052514	4052487146203
384-384	17	GKD575	165	1410057517	4052487146524
385-400	18	GKD575	165	1410057518	4052487146531
396-410	14	GKD440	150	1410044014	4052487145176
403-417	21	GKD475	150	1410047521	4052487145497
414-427	15	GKD400	150	1410040015	4052487144612

For pipes

Carrier pipe OD (mm)	Number of segments	Type	Required wall thickness (mm)	Article number	GTIN
428-442	16	GKD425	125	1410042516	4052487143158
440-452	19	GKD325	110	1410032519	4052487144469
448-453	37	GKD315	100	1410031539	4052487189897
454-463	34	GKD300	100	1410030036	4052487189354
350-370	9	GKD615	205	1410061509	4052487146852
382-396	15	GKD650	165	1410065015	4052487147439
407-417	15	GKD500	165	1410050015	4052487145916
418-426	16	GKD500	165	1410050016	4052487145923
423-434	16	GKD525	165	1410052516	4052487146227
434-435	19	GKD575	165	1410057519	4052487146548
436-450	20	GKD575	165	1410057520	4052487146555
446-460	16	GKD440	150	1410044016	4052487145190
453-467	23	GKD475	150	1410047523	4052487145510
464-477	17	GKD400	150	1410040017	4052487143103
478-488	17	GKD425	125	1410042517	4052487144896
489-492	18	GKD425	125	1410042518	4052487144902
490-502	21	GKD325	110	1410032521	4052487144483
400-420	10	GKD615	205	1410061510	4052487146869
432-446	16	GKD650	165	1410065016	4052487147446
457-476	17	GKD500	165	1410050017	4052487145930
473-484	17	GKD525	165	1410052517	4052487146234
484-486	21	GKD575	165	1410057521	4052487146562
487-500	22	GKD575	165	1410057522	4052487146579
496-510	17	GKD440	150	1410044017	4052487145206
503-516	25	GKD475	150	1410047525	4052487145534
514-527	19	GKD400	150	1410040019	4052487143110
517-517	26	GKD475	150	1410047526	4052487145541
528-542	19	GKD425	125	1410042519	4052487144919
540-552	23	GKD325	110	1410032523	4052487144506
450-470	11	GKD615	205	1410061511	4052487146876
482-492	18	GKD650	165	1410065018	4052487147460
507-526	19	GKD500	165	1410050019	4052487145954
523-534	19	GKD525	165	1410052519	4052487146258
534-537	23	GKD575	165	1410057523	4052487146586
538-550	24	GKD575	165	1410057524	4052487146593
546-560	19	GKD440	150	1410044019	4052487145220
553-554	27	GKD475	150	1410047527	4052487145558
555-567	28	GKD475	150	1410047528	4052487145565
564-576	20	GKD400	150	1410040020	4052487143127

Carrier pipe OD (mm)	Number of segments	Type	Required wall thickness (mm)	Article number	GTIN
577-577	21	GKD400	150	1410040021	4052487142311
578-592	21	GKD425	125	1410042521	4052487142380
590-602	25	GKD325	110	1410032525	4052487144520

<sup>1)</sup> Due to the small size of the pressure plates, nuts are not moulded and without installation control.



GKD400 - installation preparation with lubricant GM



GKD400 - mounting of segments



GKD400 - tightening of segments



GKD with one segment not tightened - installation error immediately detected.

03 Press seals

### Accessories

Figure	Item	Article number	GTIN
	Lubricant stick for press seals	5180040008	4052487233378

# Standard press seal

with continuously variable super segment ring technology

## HSD SSG



For sealing new or already installed pipes in core drill holes or wall sleeves. Continuously adjustable to cable diameter on site.

### USP

- Visual and physical installation control through integrated inspection window
- integrated super segmented ring technology for individual adjustment to cable/pipe diameter on site
- Segments with diameter marking

### Dimensions

- Sealing width up to Ø 250 mm: 40 mm
- Sealing width for Ø 300 mm: 50 mm

### Tightness

- gastight and watertight
- radon-proof



Wall sleeve/ core drilled hole ID (mm)	Openings	Carrier pipe Øa (mm)	Article code	Packing unit	Article number	GTIN
100	1	18-65	<b>HSD100 SSG 1x18-65 b40 A2/EPDM</b>	1	3030300060	4052487165655
				15		4052487223737
150	1	70-112	<b>HSD150 SSG 1x70-112 b40 A2/EPDM</b>	1	3030300064	4052487129015
				15		4052487223751
200	1	110-162	<b>HSD200 SSG 1x110-162 b40 A2/EPDM</b>	1	3030300068	4052487129022
				15		4052487223799
250	1	159-211	<b>HSD250 SSG 1x159-211 b40 A2/EPDM<sup>1)</sup></b>	1	3030300072	4052487129374
				4		4052487223805
300	1	200-252	<b>HSD300 SSG 1x200-252 b50 A2/EPDM<sup>1)</sup></b>	1	3030300076	4052487129381
				4		4052487223812

<sup>1)</sup> Not blind sealed as standard, blind seal is available as an optional accessory.





super segment ring technology with exact diameter marking



U-profile press segments made of stainless steel A2 (AISI 304L) or A4 (AISI 316L)

### Accessories

Figure	Item	Article code	Article number	GTIN
	Closing cover for standard press seals HSD SSG	<b>HSD250 SSG D</b>	5199990021	4052487233514
	Closing cover for standard press seals HSD SSG	<b>HSD300 SSG D</b>	5199990019	4052487233538

# Standard press seal

with stepped variable super segmented ring technology

## HSD SSG

For sealing new or already installed pipes in core drill holes or wall sleeves. Can be adapted to the most common cable diameters on site.



### USP

- Visual and physical installation control through integrated inspection window
- integrated super segmented ring technology for individual adjustment to cable/pipe diameter on site

- Segments with diameter marking

### Dimensions

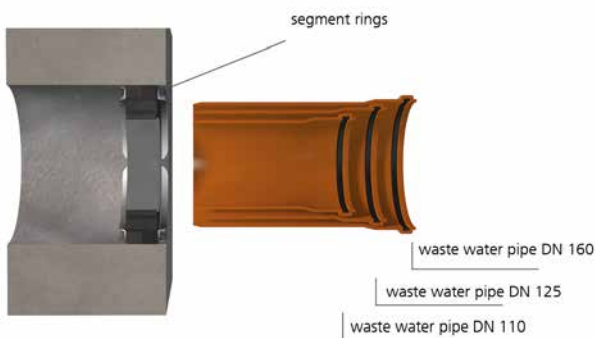
- Sealing width: 40 mm

### Tightness

- gastight and watertight
- radon-proof



Figure	Wall sleeve/ core drilled hole ID (mm)	Openings	Carrier pipe Øa (mm)	Article code	Packing unit	Article number	GTIN
	100	1	25/32/40/50/63	<b>HSD100 SSG</b> <b>1x25/32/40/50/63 b40</b> <b>A2/EPDM</b>	1	3030300058	4052487121286
					15		4052487223713
	150	1	75/90/110	<b>HSD150 SSG</b> <b>1x75/90/110 b40 A2/</b> <b>EPDM</b>	1	3030300062	4052487121804
					15		4052487223744
	200	1	110/125/135/160	<b>HSD200 SSG</b> <b>1x110/125/135/160</b> <b>b40 A2/EPDM</b>	1	3030300067	4052487123624
					15		4052487223782



The HSD200 SSG 1x110/125/135/160 b40 A2/EPDM55 annular space gasket can be used to seal standard pipes Øa 110, 125 and 160.



Visual and physical installation control through integrated inspection window



blind closed

# Standard press seal

sealing width 40 mm



## HSD b40

For sealing new or already installed pipes in core drill holes or wall sleeves. Available for delivery for all standard pipe sizes.

### USP

- Visual and physical installation control through integrated inspection window

### Tightness

- gastight and watertight
- radon-proof



### Dimensions

- Sealing width: 40 mm

### A2/EPDM

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
80	25-27	<b>HSD80 1x25 b40 A2/EPDM</b>	3030567408	4052487246330
	32-34	<b>HSD80 1x32 b40 A2/EPDM</b>	3030567403	4052487246323
	40-43	<b>HSD80 1x40 b40 A2/EPDM</b>	3030567412	4052487246347
100	32-34	<b>HSD100 1x32 b40 A2/EPDM</b>	1650010032	4052487121347
	40-43	<b>HSD100 1x40 b40 A2/EPDM</b>	1650010040	4052487121408
	48-51	<b>HSD100 1x48 b40 A2/EPDM</b>	1650010048	4052487121460
	60-63.5	<b>HSD100 1x60 b40 A2/EPDM</b>	1650010060	4052487121521
125	60-63.5	<b>HSD125 1x60 b40 A2/EPDM</b>	1650012060	4052487121583
	75-77	<b>HSD125 1x75 b40 A2/EPDM</b>	1650012075	4052487121644
	78-81	<b>HSD125 1x78 b40 A2/EPDM</b>	1650012085	4052487121705
150	78-81	<b>HSD150 1x78 b40 A2/EPDM</b>	1650015078	4052487121828
	88-92	<b>HSD150 1x88 b40 A2/EPDM</b>	1650015088	4052487121880
	110-113	<b>HSD150 1x110 b40 A2/EPDM</b>	1650015110	4052487121941
200	110-113	<b>HSD200 1x110 b40 A2/EPDM</b>	1650020100	4052487122047
	114-119	<b>HSD200 1x114 b40 A2/EPDM</b>	1650020110	4052487122108
	125-128	<b>HSD200 1x125 b40 A2/EPDM</b>	1650020120	4052487122160
	133-136	<b>HSD200 1x133 b40 A2/EPDM</b>	1650020130	4052487122221
	139-141	<b>HSD200 1x139 b40 A2/EPDM</b>	1650020140	4052487122283
	159-163	<b>HSD200 1x159 b40 A2/EPDM</b>	1650020150	4052487122344
250	159-163	<b>HSD250 G 1x159 b40 A2/EPDM</b>	1650025150	4052487122443
	168-171	<b>HSD250 G 1x168 b40 A2/EPDM</b>	1650025160	4052487122504
	177-181	<b>HSD250 G 1x177 b40 A2/EPDM</b>	1650025170	4052487122566
	200-201	<b>HSD250 G 1x200 b40 A2/EPDM</b>	1650025200	4052487122627
	210-211	<b>HSD250 G 1x210 b40 A2/EPDM</b>	1650025210	4052487122689
300	198-202	<b>HSD300 G 1x200 b40 A2/EPDM</b>	1650030200	4052487122788
	208-212	<b>HSD300 G 1x210 b40 A2/EPDM</b>	1650030210	4052487122849
	217-221	<b>HSD300 G 1x219 b40 A2/EPDM</b>	1650030220	4052487122900
	223-227	<b>HSD300 G 1x225 b40 A2/EPDM</b>	1650030230	4052487122962
	248-252	<b>HSD300 G 1x250 b40 A2/EPDM</b>	1650030250	4052487123020

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
400	273-276	<b>HSD400 G 1x273 b40 A2/EPDM</b>	1650040270	4052487123082
	277-282	<b>HSD400 G 1x277 b40 A2/EPDM</b>	1650040280	4052487123143
	315-321	<b>HSD400 G 1x315 b40 A2/EPDM</b>	1650040310	4052487123204
	324-328	<b>HSD400 G 1x324 b40 A2/EPDM</b>	1650040320	4052487123266
500	398-402	<b>HSD500 G 1x400 b40 A2/EPDM</b>	1650050400	4052487123327
	427-431	<b>HSD500 G 1x429 b40 A2/EPDM</b>	1650050430	4052487123389
	448-452	<b>HSD500 G 1x450 b40 A2/EPDM</b>	1650050450	4052487123440

**A4/EPDM**

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b40 A4/EPDM</b>	1650010036	4052487121378
	40-43	<b>HSD100 1x40 b40 A4/EPDM</b>	1650010044	4052487121439
	48-51	<b>HSD100 1x48 b40 A4/EPDM</b>	1650010052	4052487121491
	60-63.5	<b>HSD100 1x60 b40 A4/EPDM</b>	1650010064	4052487121552
125	60-63.5	<b>HSD125 1x60 b40 A4/EPDM</b>	1650012064	4052487121613
	75-77	<b>HSD125 1x75 b40 A4/EPDM</b>	1650012079	4052487121675
	78-81	<b>HSD125 1x78 b40 A4/EPDM</b>	1650012089	4052487121736
150	78-81	<b>HSD150 1x78 b40 A4/EPDM</b>	1650015082	4052487121859
	88-92	<b>HSD150 1x88 b40 A4/EPDM</b>	1650015092	4052487121910
	110-113	<b>HSD150 1x110 b40 A4/EPDM</b>	1650015113	4052487121972
200	110-113	<b>HSD200 1x110 b40 A4/EPDM</b>	1650020104	4052487122078
	114-119	<b>HSD200 1x114 b40 A4/EPDM</b>	1650020114	4052487122139
	125-128	<b>HSD200 1x125 b40 A4/EPDM</b>	1650020124	4052487122191
	133-136	<b>HSD200 1x133 b40 A4/EPDM</b>	1650020134	4052487122252
	139-141	<b>HSD200 1x139 b40 A4/EPDM</b>	1650020144	4052487122313
	159-163	<b>HSD200 1x159 b40 A4/EPDM</b>	1650020154	4052487122375
250	159-163	<b>HSD250 G 1x159 b40 A4/EPDM</b>	1650025154	4052487122474
	168-171	<b>HSD250 G 1x168 b40 A4/EPDM</b>	1650025164	4052487122535
	177-181	<b>HSD250 G 1x177 b40 A4/EPDM</b>	1650025174	4052487122597
	200-201	<b>HSD250 G 1x200 b40 A4/EPDM</b>	1650025204	4052487122658
	210-211	<b>HSD250 G 1x210 b40 A4/EPDM</b>	1650025214	4052487122719
300	198-202	<b>HSD300 G 1x200 b40 A4/EPDM</b>	1650030204	4052487122818
	208-212	<b>HSD300 G 1x210 b40 A4/EPDM</b>	1650030214	4052487122870
	217-221	<b>HSD300 G 1x219 b40 A4/EPDM</b>	1650030224	4052487122931
	223-227	<b>HSD300 G 1x225 b40 A4/EPDM</b>	1650030234	4052487122993
	248-252	<b>HSD300 G 1x250 b40 A4/EPDM</b>	1650030254	4052487123051
400	273-276	<b>HSD400 G 1x273 b40 A4/EPDM</b>	1650040274	4052487123112
	277-282	<b>HSD400 G 1x277 b40 A4/EPDM</b>	1650040284	4052487123174
	315-321	<b>HSD400 G 1x315 b40 A4/EPDM</b>	1650040314	4052487123235
	324-328	<b>HSD400 G 1x324 b40 A4/EPDM</b>	1650040324	4052487123297
500	398-402	<b>HSD500 G 1x400 b40 A4/EPDM</b>	1650050404	4052487123358
	427-431	<b>HSD500 G 1x429 b40 A4/EPDM</b>	1650050434	4052487123419
	448-452	<b>HSD500 G 1x450 b40 A4/EPDM</b>	1650050454	4052487123471

## A2/NBR

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b40 A2/NBR</b>	1650010033	4052487121354
	40-43	<b>HSD100 1x40 b40 A2/NBR</b>	1650010041	4052487121415
	48-51	<b>HSD100 1x48 b40 A2/NBR</b>	1650010049	4052487121477
	60-63.5	<b>HSD100 1x60 b40 A2/NBR</b>	1650010061	4052487121538
125	60-63.5	<b>HSD125 1x60 b40 A2/NBR</b>	1650012061	4052487121590
	75-77	<b>HSD125 1x75 b40 A2/NBR</b>	1650012076	4052487121651
	78-81	<b>HSD125 1x78 b40 A2/NBR</b>	1650012086	4052487121712
150	78-81	<b>HSD150 1x78 b40 A2/NBR</b>	1650015079	4052487121835
	88-92	<b>HSD150 1x88 b40 A2/NBR</b>	1650015089	4052487121897
	110-113	<b>HSD150 1x110 b40 A2/NBR</b>	1650015111	4052487121958
200	110-113	<b>HSD200 1x110 b40 A2/NBR</b>	1650020101	4052487122054
	114-119	<b>HSD200 1x114 b40 A2/NBR</b>	1650020111	4052487122115
	125-128	<b>HSD200 1x125 b40 A2/NBR</b>	1650020121	4052487122177
	133-136	<b>HSD200 1x133 b40 A2/NBR</b>	1650020131	4052487122238
	139-141	<b>HSD200 1x139 b40 A2/NBR</b>	1650020141	4052487122290
	159-163	<b>HSD200 1x159 b40 A2/NBR</b>	1650020151	4052487122351
250	159-163	<b>HSD250 G 1x159 b40 A2/NBR</b>	1650025151	4052487122450
	168-171	<b>HSD250 G 1x168 b40 A2/NBR</b>	1650025161	4052487122511
	177-181	<b>HSD250 G 1x177 b40 A2/NBR</b>	1650025171	4052487122573
	200-201	<b>HSD250 G 1x200 b40 A2/NBR</b>	1650025201	4052487122634
	210-211	<b>HSD250 G 1x210 b40 A2/NBR</b>	1650025211	4052487122696
300	198-202	<b>HSD300 G 1x200 b40 A2/NBR</b>	1650030201	4052487122795
	208-212	<b>HSD300 G 1x210 b40 A2/NBR</b>	1650030211	4052487122856
	217-221	<b>HSD300 G 1x219 b40 A2/NBR</b>	1650030221	4052487122917
	223-227	<b>HSD300 G 1x225 b40 A2/NBR</b>	1650030231	4052487122979
	248-252	<b>HSD300 G 1x250 b40 A2/NBR</b>	1650030251	4052487123037
400	273-276	<b>HSD400 G 1x273 b40 A2/NBR</b>	1650040271	4052487123099
	277-282	<b>HSD400 G 1x277 b40 A2/NBR</b>	1650040281	4052487123150
	315-321	<b>HSD400 G 1x315 b40 A2/NBR</b>	1650040311	4052487123211
	324-328	<b>HSD400 G 1x324 b40 A2/NBR</b>	1650040321	4052487123273
500	398-402	<b>HSD500 G 1x400 b40 A2/NBR</b>	1650050401	4052487123334
	427-431	<b>HSD500 G 1x429 b40 A2/NBR</b>	1650050431	4052487123396
	448-452	<b>HSD500 G 1x450 b40 A2/NBR</b>	1650050451	4052487123457

## A4/NBR

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b40 A4/NBR</b>	1650010037	4052487121385
	40-43	<b>HSD100 1x40 b40 A4/NBR</b>	1650010045	4052487121446
	48-51	<b>HSD100 1x48 b40 A4/NBR</b>	1650010053	4052487121507
	60-63.5	<b>HSD100 1x60 b40 A4/NBR</b>	1650010065	4052487121569
125	60-63.5	<b>HSD125 1x60 b40 A4/NBR</b>	1650012065	4052487121620
	75-77	<b>HSD125 1x75 b40 A4/NBR</b>	1650012080	4052487121682
	78-81	<b>HSD125 1x78 b40 A4/NBR</b>	1650012090	4052487121743
150	78-81	<b>HSD150 1x78 b40 A4/NBR</b>	1650015083	4052487121866
	88-92	<b>HSD150 1x88 b40 A4/NBR</b>	1650015093	4052487121927
	110-113	<b>HSD150 1x110 b40 A4/NBR</b>	1650015114	4052487121989
200	110-113	<b>HSD200 1x110 b40 A4/NBR</b>	1650020105	4052487122085
	114-119	<b>HSD200 1x114 b40 A4/NBR</b>	1650020115	4052487122146
	125-128	<b>HSD200 1x125 b40 A4/NBR</b>	1650020125	4052487122207
	133-136	<b>HSD200 1x133 b40 A4/NBR</b>	1650020135	4052487122269
	139-141	<b>HSD200 1x139 b40 A4/NBR</b>	1650020145	4052487122320
	159-163	<b>HSD200 1x159 b40 A4/NBR</b>	1650020155	4052487122382
250	159-163	<b>HSD250 G 1x159 b40 A4/NBR</b>	1650025155	4052487122481
	168-171	<b>HSD250 G 1x168 b40 A4/NBR</b>	1650025165	4052487122542
	177-181	<b>HSD250 G 1x177 b40 A4/NBR</b>	1650025175	4052487122603
	200-201	<b>HSD250 G 1x200 b40 A4/NBR</b>	1650025205	4052487122665
	210-211	<b>HSD250 G 1x210 b40 A4/NBR</b>	1650025215	4052487122726
300	198-202	<b>HSD300 G 1x200 b40 A4/NBR</b>	1650030205	4052487122825
	208-212	<b>HSD300 G 1x210 b40 A4/NBR</b>	1650030215	4052487122887
	217-221	<b>HSD300 G 1x219 b40 A4/NBR</b>	1650030225	4052487122948
	223-227	<b>HSD300 G 1x225 b40 A4/NBR</b>	1650030235	4052487123006
	248-252	<b>HSD300 G 1x250 b40 A4/NBR</b>	1650030255	4052487123068
400	273-276	<b>HSD400 G 1x273 b40 A4/NBR</b>	1650040275	4052487123129
	277-282	<b>HSD400 G 1x277 b40 A4/NBR</b>	1650040285	4052487123181
	315-321	<b>HSD400 G 1x315 b40 A4/NBR</b>	1650040315	4052487123242
	324-328	<b>HSD400 G 1x324 b40 A4/NBR</b>	1650040325	4052487123303
500	398-402	<b>HSD500 G 1x400 b40 A4/NBR</b>	1650050405	4052487123365
	427-431	<b>HSD500 G 1x429 b40 A4/NBR</b>	1650050435	4052487123426
	448-452	<b>HSD500 G 1x450 b40 A4/NBR</b>	1650050455	4052487123488

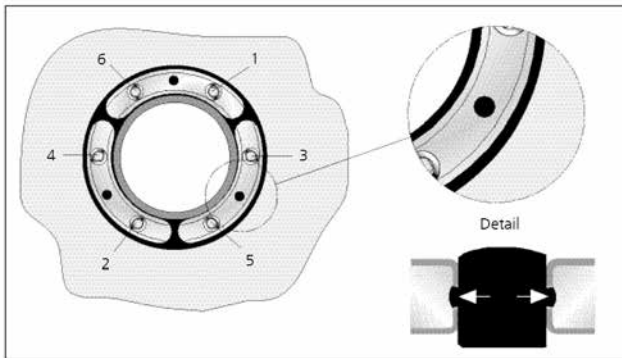
**A2/KTW**

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b40 A2/KTW</b>	1650010034	4052487121361
	40-43	<b>HSD100 1x40 b40 A2/KTW</b>	1650010042	4052487121422
	48-51	<b>HSD100 1x48 b40 A2/KTW</b>	1650010050	4052487121484
	60-63.5	<b>HSD100 1x60 b40 A2/KTW</b>	1650010062	4052487121545
125	60-63.5	<b>HSD125 1x60 b40 A2/KTW</b>	1650012062	4052487121606
	75-77	<b>HSD125 1x75 b40 A2/KTW</b>	1650012077	4052487121668
	78-81	<b>HSD125 1x78 b40 A2/KTW</b>	1650012087	4052487121729
150	78-81	<b>HSD150 1x78 b40 A2/KTW</b>	1650015080	4052487121842
	88-92	<b>HSD150 1x88 b40 A2/KTW</b>	1650015090	4052487121903
	110-113	<b>HSD150 1x110 b40 A2/KTW</b>	1650015112	4052487121965
200	110-113	<b>HSD200 1x110 b40 A2/KTW</b>	1650020102	4052487122061
	114-119	<b>HSD200 1x114 b40 A2/KTW</b>	1650020112	4052487122122
	125-128	<b>HSD200 1x125 b40 A2/KTW</b>	1650020122	4052487122184
	133-136	<b>HSD200 1x133 b40 A2/KTW</b>	1650020132	4052487122245
	139-141	<b>HSD200 1x139 b40 A2/KTW</b>	1650020142	4052487122306
	159-163	<b>HSD200 1x159 b40 A2/KTW</b>	1650020152	4052487122368
250	159-163	<b>HSD250 G 1x159 b40 A2/KTW</b>	1650025152	4052487122467
	168-171	<b>HSD250 G 1x168 b40 A2/KTW</b>	1650025162	4052487122528
	177-181	<b>HSD250 G 1x177 b40 A2/KTW</b>	1650025172	4052487122580
	200-201	<b>HSD250 G 1x200 b40 A2/KTW</b>	1650025202	4052487122641
	210-211	<b>HSD250 G 1x210 b40 A2/KTW</b>	1650025212	4052487122702
300	198-202	<b>HSD300 G 1x200 b40 A2/KTW</b>	1650030202	4052487122801
	208-212	<b>HSD300 G 1x210 b40 A2/KTW</b>	1650030212	4052487122863
	217-221	<b>HSD300 G 1x219 b40 A2/KTW</b>	1650030222	4052487122924
	223-227	<b>HSD300 G 1x225 b40 A2/KTW</b>	1650030232	4052487122986
	248-252	<b>HSD300 G 1x250 b40 A2/KTW</b>	1650030252	4052487123044
400	273-276	<b>HSD400 G 1x273 b40 A2/KTW</b>	1650040272	4052487123105
	277-282	<b>HSD400 G 1x277 b40 A2/KTW</b>	1650040282	4052487123167
	315-321	<b>HSD400 G 1x315 b40 A2/KTW</b>	1650040312	4052487123228
	324-328	<b>HSD400 G 1x324 b40 A2/KTW</b>	1650040322	4052487123280
500	398-402	<b>HSD500 G 1x400 b40 A2/KTW</b>	1650050402	4052487123341
	427-431	<b>HSD500 G 1x429 b40 A2/KTW</b>	1650050432	4052487123402
	448-452	<b>HSD500 G 1x450 b40 A2/KTW</b>	1650050452	4052487123464

## A4/KTW

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b40 A4/KTW</b>	1650010038	4052487121392
	40-43	<b>HSD100 1x40 b40 A4/KTW</b>	1650010046	4052487121453
	48-51	<b>HSD100 1x48 b40 A4/KTW</b>	1650010054	4052487121514
	60-63.5	<b>HSD100 1x60 b40 A4/KTW</b>	1650010066	4052487121576
125	60-63.5	<b>HSD125 1x60 b40 A4/KTW</b>	1650012066	4052487121637
	75-77	<b>HSD125 1x75 b40 A4/KTW</b>	1650012081	4052487121699
	78-81	<b>HSD125 1x78 b40 A4/KTW</b>	1650012091	4052487121750
150	78-81	<b>HSD150 1x78 b40 A4/KTW</b>	1650015084	4052487121873
	88-92	<b>HSD150 1x88 b40 A4/KTW</b>	1650015094	4052487121934
	110-113	<b>HSD150 1x110 b40 A4/KTW</b>	1650015115	4052487121996
200	110-113	<b>HSD200 1x110 b40 A4/KTW</b>	1650020106	4052487122092
	114-119	<b>HSD200 1x114 b40 A4/KTW</b>	1650020116	4052487122153
	125-128	<b>HSD200 1x125 b40 A4/KTW</b>	1650020126	4052487122214
	133-136	<b>HSD200 1x133 b40 A4/KTW</b>	1650020136	4052487122276
	139-141	<b>HSD200 1x139 b40 A4/KTW</b>	1650020146	4052487122337
	159-163	<b>HSD200 1x159 b40 A4/KTW</b>	1650020156	4052487122399
250	159-163	<b>HSD250 G 1x159 b40 A4/KTW</b>	1650025156	4052487122498
	168-171	<b>HSD250 G 1x168 b40 A4/KTW</b>	1650025166	4052487122559
	177-181	<b>HSD250 G 1x177 b40 A4/KTW</b>	1650025176	4052487122610
	200-201	<b>HSD250 G 1x200 b40 A4/KTW</b>	1650025206	4052487122672
	210-211	<b>HSD250 G 1x210 b40 A4/KTW</b>	1650025216	4052487122733
300	198-202	<b>HSD300 G 1x200 b40 A4/KTW</b>	1650030206	4052487122832
	208-212	<b>HSD300 G 1x210 b40 A4/KTW</b>	1650030216	4052487122894
	217-221	<b>HSD300 G 1x219 b40 A4/KTW</b>	1650030226	4052487122955
	223-227	<b>HSD300 G 1x225 b40 A4/KTW</b>	1650030236	4052487123013
	248-252	<b>HSD300 G 1x250 b40 A4/KTW</b>	1650030256	4052487123075
400	273-276	<b>HSD400 G 1x273 b40 A4/KTW</b>	1650040276	4052487123136
	277-282	<b>HSD400 G 1x277 b40 A4/KTW</b>	1650040286	4052487123198
	315-321	<b>HSD400 G 1x315 b40 A4/KTW</b>	1650040316	4052487123259
	324-328	<b>HSD400 G 1x324 b40 A4/KTW</b>	1650040326	4052487123310
500	398-402	<b>HSD500 G 1x400 b40 A4/KTW</b>	1650050406	4052487123372
	427-431	<b>HSD500 G 1x429 b40 A4/KTW</b>	1650050436	4052487123433
	448-452	<b>HSD500 G 1x450 b40 A4/KTW</b>	1650050456	4052487123495

For pipes



Detailed view - HSD, inspection opening and tightening sequence of the screws



Built-in HSD b40

# Standard press seal

sealing width 80 mm

## HSD b80



For sealing new or already installed pipes in core drill holes or wall sleeves. Available for delivery for all standard pipe sizes.

### USP

- Visual and physical installation control through integrated inspection window

### Tightness

- gastight and watertight
- radon-proof



### Dimensions

- Sealing width: 80 mm

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b80 A2/EPDM</b>	1600100321	4052487040327
	40-43	<b>HSD100 1x40 b80 A2/EPDM</b>	1600100401	4052487040341
	48-51	<b>HSD100 1x48 b80 A2/EPDM</b>	1600100481	4052487040365
	60-63.5	<b>HSD100 1x60 b80 A2/EPDM</b>	1600100601	4052487040389
125	60-63.5	<b>HSD125 1x60 b80 A2/EPDM</b>	1600200601	4052487040709
	75-77	<b>HSD125 1x75 b80 A2/EPDM</b>	1600200751	4052487040723
	78-81	<b>HSD125 1x78 b80 A2/EPDM</b>	1600200781	4052487040747
150	78-81	<b>HSD150 1x78 b80 A2/EPDM</b>	1600300781	4052487040907
	88-92	<b>HSD150 1x88 b80 A2/EPDM</b>	1600300881	4052487040921
	110-113	<b>HSD150 1x110 b80 A2/EPDM</b>	1600300111	4052487040839
200	110-113	<b>HSD200 1x110 b80 A2/EPDM</b>	1600400111	4052487040976
	114-119	<b>HSD200 1x114 b80 A2/EPDM</b>	1600400115	4052487041010
	125-128	<b>HSD200 1x125 b80 A2/EPDM</b>	1600400126	4052487041034
	133-136	<b>HSD200 1x133 b80 A2/EPDM</b>	1600400134	4052487041096
	139-141	<b>HSD200 1x139 b80 A2/EPDM</b>	1600400128	4052487041058
	159-163	<b>HSD200 1x159 b80 A2/EPDM</b>	1600400127	4052487041041
250	159-163	<b>HSD250 1x159 b80 A2/EPDM</b>	1600500203	4052487041317
	168-171	<b>HSD250 1x168 b80 A2/EPDM</b>	1600500169	4052487041263
	177-181	<b>HSD250 1x177 b80 A2/EPDM</b>	1600500202	4052487041300
	200-201	<b>HSD250 1x200 b80 A2/EPDM</b>	1600500201	4052487041294
	210-211	<b>HSD250 1x210 b80 A2/EPDM</b>	1600500211	4052487041331
300	198-202	<b>HSD300 1x200 b80 A2/EPDM</b>	1600600201	4052487041430
	208-212	<b>HSD300 1x210 b80 A2/EPDM</b>	1600600211	4052487041454
	217-221	<b>HSD300 1x219 b80 A2/EPDM</b>	1600600220	4052487041478
	223-227	<b>HSD300 1x225 b80 A2/EPDM</b>	1600600253	4052487041508
	248-252	<b>HSD300 1x250 b80 A2/EPDM</b>	1600600254	4052487041515
400	273-276	<b>HSD400 1x273 b80 A2/EPDM</b>	1600700274	4052487041560
	277-282	<b>HSD400 1x277 b80 A2/EPDM</b>	1600700326	4052487041638

For pipes

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
400	315-321	<b>HSD400 1x315 b80 A2/EPDM</b>	1600700316	4052487041607
	324-328	<b>HSD400 1x324 b80 A2/EPDM</b>	1600700325	4052487041621
500	398-402	<b>HSD500 1x400 b80 A2/EPDM</b>	1600800401	4052487041690
	427-431	<b>HSD500 1x429 b80 A2/EPDM</b>	1600800430	4052487041713
	448-452	<b>HSD500 1x450 b80 A2/EPDM</b>	1600800451	4052487041737



HSD b80 cross section



HSD500 1x450 b80 A2/EPDM55

# Standard press seal

sealing width 20 mm



## HSD b20

For sealing new or already installed pipes in core drill holes or wall sleeves. Available for delivery for all standard pipe sizes.

### USP

- Visual and physical installation control through integrated inspection window

### Dimensions

- Sealing width: 20 mm

### Tightness

- gastight and watertight

### A2/EPDM

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b20 A2/EPDM</b>	1650310032	4052487125109
	40-43	<b>HSD100 1x40 b20 A2/EPDM</b>	1650310040	4052487125161
	48-51	<b>HSD100 1x48 b20 A2/EPDM</b>	1650310048	4052487125222
	60-63.5	<b>HSD100 1x60 b20 A2/EPDM</b>	1650310060	4052487125284
125	60-63.5	<b>HSD125 1x60 b20 A2/EPDM</b>	1650312060	4052487125345
	75-77	<b>HSD125 1x75 b20 A2/EPDM</b>	1650312075	4052487125406
	78-81	<b>HSD125 1x78 b20 A2/EPDM</b>	1650312085	4052487125468
150	78-81	<b>HSD150 1x78 b20 A2/EPDM</b>	1650315078	4052487125529
	88-92	<b>HSD150 1x88 b20 A2/EPDM</b>	1650315088	4052487125581
	110-113	<b>HSD150 1x110 b20 A2/EPDM</b>	1650315110	4052487125642
200	110-113	<b>HSD200 1x110 b20 A2/EPDM</b>	1650320100	4052487125703
	114-119	<b>HSD200 1x114 b20 A2/EPDM</b>	1650320110	4052487125765
	125-128	<b>HSD200 1x125 b20 A2/EPDM</b>	1650320120	4052487125826
	133-136	<b>HSD200 1x133 b20 A2/EPDM</b>	1650320130	4052487125888
	139-141	<b>HSD200 1x139 b20 A2/EPDM</b>	1650320140	4052487125949
	159-163	<b>HSD200 1x159 b20 A2/EPDM</b>	1650320150	4052487126007

**A4/EPDM**

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b20 A4/EPDM</b>	1650310036	4052487125130
	40-43	<b>HSD100 1x40 b20 A4/EPDM</b>	1650310044	4052487125192
	48-51	<b>HSD100 1x48 b20 A4/EPDM</b>	1650310052	4052487125253
	60-63.5	<b>HSD100 1x60 b20 A4/EPDM</b>	1650310064	4052487125314
125	60-63.5	<b>HSD125 1x60 b20 A4/EPDM</b>	1650312064	4052487125376
	75-77	<b>HSD125 1x75 b20 A4/EPDM</b>	1650312079	4052487125437
	78-81	<b>HSD125 1x78 b20 A4/EPDM</b>	1650312089	4052487125499
150	78-81	<b>HSD150 1x78 b20 A4/EPDM</b>	1650315082	4052487125550
	88-92	<b>HSD150 1x88 b20 A4/EPDM</b>	1650315092	4052487125611
	110-113	<b>HSD150 1x110 b20 A4/EPDM</b>	1650315113	4052487125673
200	110-113	<b>HSD200 1x110 b20 A4/EPDM</b>	1650320104	4052487125734
	114-119	<b>HSD200 1x114 b20 A4/EPDM</b>	1650320114	4052487125796
	125-128	<b>HSD200 1x125 b20 A4/EPDM</b>	1650320124	4052487125857
	133-136	<b>HSD200 1x133 b20 A4/EPDM</b>	1650320134	4052487125918
	139-141	<b>HSD200 1x139 b20 A4/EPDM</b>	1650320144	4052487125970
	159-163	<b>HSD200 1x159 b20 A4/EPDM</b>	1650320154	4052487126038

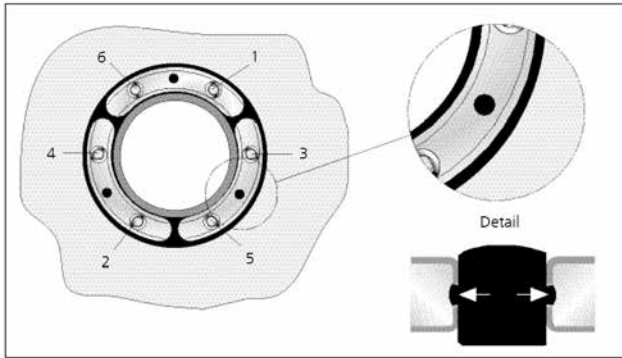
**A2/KTW**

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b20 A2/KTW</b>	1650310034	4052487125123
	40-43	<b>HSD100 1x40 b20 A2/KTW</b>	1650310042	4052487125185
	48-51	<b>HSD100 1x48 b20 A2/KTW</b>	1650310050	4052487125246
	60-63.5	<b>HSD100 1x60 b20 A2/KTW</b>	1650310062	4052487125307
125	60-63.5	<b>HSD125 1x60 b20 A2/KTW</b>	1650312062	4052487125369
	75-77	<b>HSD125 1x75 b20 A2/KTW</b>	1650312077	4052487125420
	78-81	<b>HSD125 1x78 b20 A2/KTW</b>	1650312087	4052487125482
150	78-81	<b>HSD150 1x78 b20 A2/KTW</b>	1650315080	4052487125543
	88-92	<b>HSD150 1x88 b20 A2/KTW</b>	1650315090	4052487125604
	110-113	<b>HSD150 1x110 b20 A2/KTW</b>	1650315112	4052487125666
200	110-113	<b>HSD200 1x110 b20 A2/KTW</b>	1650320102	4052487125727
	114-119	<b>HSD200 1x114 b20 A2/KTW</b>	1650320112	4052487125789
	125-128	<b>HSD200 1x125 b20 A2/KTW</b>	1650320122	4052487125840
	133-136	<b>HSD200 1x133 b20 A2/KTW</b>	1650320132	4052487125901
	139-141	<b>HSD200 1x139 b20 A2/KTW</b>	1650320142	4052487125963
	159-163	<b>HSD200 1x159 b20 A2/KTW</b>	1650320152	4052487126021

**A4/KTW**

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 1x32 b20 A4/KTW</b>	1650310038	4052487125154
	40-43	<b>HSD100 1x40 b20 A4/KTW</b>	1650310046	4052487125215
	48-51	<b>HSD100 1x48 b20 A4/KTW</b>	1650310054	4052487125277
	60-63.5	<b>HSD100 1x60 b20 A4/KTW</b>	1650310066	4052487125338
125	60-63.5	<b>HSD125 1x60 b20 A4/KTW</b>	1650312066	4052487125390
	75-77	<b>HSD125 1x75 b20 A4/KTW</b>	1650312081	4052487125451
	78-81	<b>HSD125 1x78 b20 A4/KTW</b>	1650312091	4052487125512
150	78-81	<b>HSD150 1x78 b20 A4/KTW</b>	1650315084	4052487125574
	88-92	<b>HSD150 1x88 b20 A4/KTW</b>	1650315094	4052487125635
	110-113	<b>HSD150 1x110 b20 A4/KTW</b>	1650315115	4052487125697
200	110-113	<b>HSD200 1x110 b20 A4/KTW</b>	1650320106	4052487125758
	114-119	<b>HSD200 1x114 b20 A4/KTW</b>	1650320116	4052487125819
	125-128	<b>HSD200 1x125 b20 A4/KTW</b>	1650320126	4052487125871
	133-136	<b>HSD200 1x133 b20 A4/KTW</b>	1650320136	4052487125932
	139-141	<b>HSD200 1x139 b20 A4/KTW</b>	1650320146	4052487125994
	159-163	<b>HSD200 1x159 b20 A4/KTW</b>	1650320156	4052487126052

03 Press seals



Detailed view - HSD, inspection opening and tightening sequence of the screws



HSD200 1x159 b20 A2/EPDM55 "shaft seal"

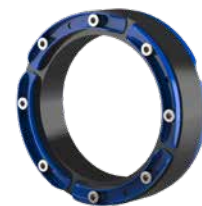


HSD125 1x75 b20 A2/EPDM55 empty conduit connection

# Standard press seal

with powder coating

## HSD C b40



For sealing new or already installed pipes in galvanised wall sleeves. Available for delivery for all standard pipe sizes.

### USP

- Visual and physical installation control through integrated inspection window
- optimised corrosion protection when used in combination with galvanised components

### Dimensions

- Sealing width: 40 mm

### Tightness

- gastight and watertight
- radon-proof



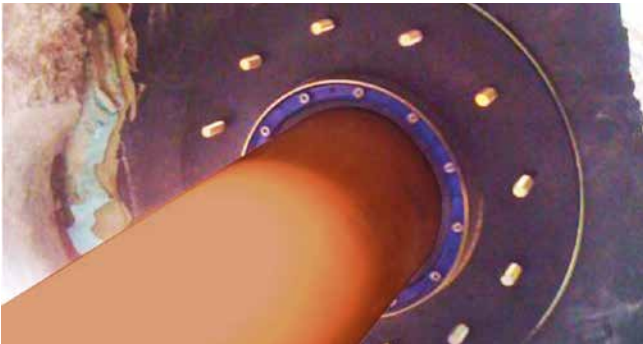
### powder coated

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
100	32-34	<b>HSD100 c 1x32 b40 A2/EPDM</b>	1610100320	4052487042123
	40-43	<b>HSD100 c 1x40 b40 A2/EPDM</b>	1610100400	4052487042130
	48-51	<b>HSD100 c 1x48 b40 A2/EPDM</b>	1610100480	4052487042147
	60-63.5	<b>HSD100 c 1x60 b40 A2/EPDM</b>	1610100600	4052487042154
125	60-63.5	<b>HSD125 c 1x60 b40 A2/EPDM</b>	1610200600	4052487042284
	75-77	<b>HSD125 c 1x75 b40 A2/EPDM</b>	1610200750	4052487042291
	78-81	<b>HSD125 c 1x78 b40 A2/EPDM</b>	1610200780	4052487042307
150	78-81	<b>HSD150 c 1x78 b40 A2/EPDM</b>	1610300780	4052487042369
	88-92	<b>HSD150 c 1x88 b40 A2/EPDM</b>	1610300880	4052487042376
	110-113	<b>HSD150 c 1x110 b40 A2/EPDM</b>	1610300110	4052487042352
200	110-113	<b>HSD200 c 1x110 b40 A2/EPDM</b>	1610400110	4052487042390
	114-119	<b>HSD200 c 1x114 b40 A2/EPDM</b>	1610400114	4052487042406
	125-128	<b>HSD200 c 1x125 b40 A2/EPDM</b>	1610400125	4052487042413
	133-136	<b>HSD200 c 1x133 b40 A2/EPDM</b>	1610400133	4052487042420
	139-141	<b>HSD200 c 1x139 b40 A2/EPDM</b>	1610400139	4052487042437
	159-163	<b>HSD200 c 1x159 b40 A2/EPDM</b>	1610400159	4052487042444

split, powder coated

Wall sleeve/ core drilled hole ID (mm)	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
250	159-163	<b>HSD250 GC 1x159 b40 A2/EPDM</b>	1610500159	4052487042475
	168-171	<b>HSD250 GC 1x168 b40 A2/EPDM</b>	1610500168	4052487042482
	177-181	<b>HSD250 GC 1x177 b40 A2/EPDM</b>	1610500177	4052487042499
	200-201	<b>HSD250 GC 1x200 b40 A2/EPDM</b>	1610500200	4052487042505
	210-211	<b>HSD250 GC 1x210 b40 A2/EPDM</b>	1610500210	4052487042512
300	198-202	<b>HSD300 GC 1x200 b40 A2/EPDM</b>	1610600200	4052487042529
	208-212	<b>HSD300 GC 1x210 b40 A2/EPDM</b>	1610600210	4052487042536
	217-221	<b>HSD300 GC 1x219 b40 A2/EPDM</b>	1610600219	4052487042543
	223-227	<b>HSD300 GC 1x225 b40 A2/EPDM</b>	1610600225	4052487042550
	248-252	<b>HSD300 GC 1x250 b40 A2/EPDM</b>	1610600250	4052487042567
400	273-276	<b>HSD400 GC 1x273 b40 A2/EPDM</b>	1610700273	4052487042574
	277-282	<b>HSD400 GC 1x277 b40 A2/EPDM</b>	1610700277	4052487042581
	315-321	<b>HSD400 GC 1x315 b40 A2/EPDM</b>	1610700315	4052487042598
	324-328	<b>HSD400 GC 1x324 b40 A2/EPDM</b>	1610700324	4052487042604
500	398-402	<b>HSD500 GC 1x400 b40 A2/EPDM</b>	1610800400	4052487042611
	427-431	<b>HSD500 GC 1x429 b40 A2/EPDM</b>	1610800429	4052487042628
	448-452	<b>HSD500 GC 1x450 b40 A2/EPDM</b>	1610800450	4052487042635

Other variants on request.



HSD200 C 1x159 b40 A2/EPDM5 5 in galvanised fixed/loose flange



HSD200 C 1x159 b40 A2/EPDM5 5 in galvanised fixed/loose flange



HSD150 C 1x110 b40 A2/EPDM55 in galvanised fixed/loose flange

For pipes

# Standard press seal

## HSD100 RW 1x25/32/40+3x6-18 b40 A2/EPDM



For sealing new or already installed pipes/cables in core drill holes or wall sleeves, specially designed for rainwater utilisation systems.

### USP

- Visual and physical installation control through integrated inspection window
- integrated segmented-ring technology for individual adjustment to cable diameters on site

- For core drills/wall sleeves Ø: 100 mm
- For 4 cables/pipes of which 3 x Ø 6-18 mm and 1 x Ø 10, 25, 32 or 40 mm



### Tightness

- gastight and watertight
- radon-proof

### Dimensions

- Sealing width: 40 mm

Wall sleeve/ core drilled hole ID (mm)	Number of cables/ medium overall	Number of cables/ medium	suitable for medium pipe OD (mm)	Article code	Packing unit	Article number	GTIN
100	4	1	10/25/32/40	<b>HSD100 RW 1x25/32/40+3x6-18 b40 A2/EPDM</b>	1	3030300059	4052487112499
		3	6-18				4052487223720
		1	10/25/32/40		5		
		3	6-18				



Built-in HSD100 RW

### Accessories

Figure	Item	Article code	Article number	GTIN
	Adapter ring for HSD 100	<b>HSD ADR 100/104</b>	3030300051	4052487040556
		<b>HSD ADR 100/110</b>	3030300052	4052487223690
		<b>HSD ADR 100/117</b>	3030300053	4052487172127

# Standard press seal

for building connections



## HSD100 EW 1x24-44+4x7-12 b40 A2/EPDM

For sealing a water pipe or a power cable and communication cables in core drill holes or wall sleeves.

### USP

- Visual and physical installation control through integrated inspection window
- integrated segmented-ring technology for individual adjustment to cable diameters on site

- For core drills/wall sleeves Ø: 100 mm
- For 5 cables/pipes of which 4 x Ø 7-12 mm and 1 x Ø 24-44 mm



### Tightness

- gastight and watertight
- radon-proof

### Dimensions

- Sealing width: 40 mm

Wall sleeve/ core drilled hole ID (mm)	Number of cables/ medium overall	Number of cables/ medium	suitable for medium pipe OD (mm)	Article code	Packing unit	Article number	GTIN
100	5	1	24-44	<b>HSD100 EW 1x24-44+4x7-12 b40 A2/EPDM</b>	1	3030300054	4052487126250
		4	7-12				4052487221566
		1	24-44		15		
		4	7-12				



Built-in HSD100 EW

# Sealing set

for corrugated cable ducts and pipes



## WRD

For sealing corrugated cable ducts and pipes. The patented clip rings inserted into the corrugated profile prevent deformation and damage to the corrugated pipe and at the same time ensure equal pressure on the press seal. The supplied insulation ring is used to centre the corrugated pipe on the inside of the building and ensures a clean wall finish.

### USP

- Visual and physical installation control through integrated inspection window
- patented clip ring technology ensures equal pressure distribution and prevents deformation

### Scope of delivery

- 1 piece of standard press seal HSD

- Stainless steel clip rings
- 1 piece of Insulation ring, split

### Dimensions

- Sealing width: 40, 60 or 80 mm (depending on corrugated pipe)

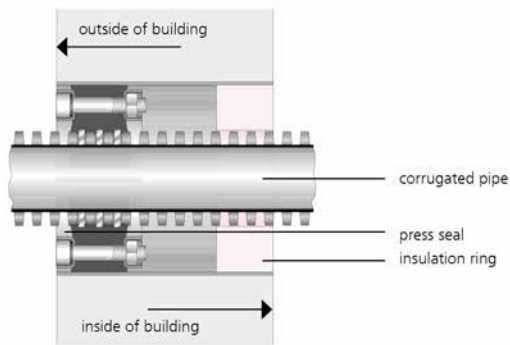
### Tightness

- gastight and watertight
- radon-proof

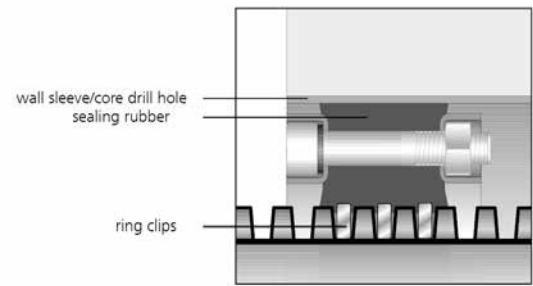


Wall sleeve/ core drilled hole ID (mm)	Nominal width (mm)	Manufacturer	Type	Article code	Article number	GTIN
100	63	Fränkische Rohrwerke	KABUFLEX	<b>WRD100 1x63 b40 A2/ EPDM</b>	1610100063	4052487042116
150	75	Fränkische Rohrwerke	KABUFLEX	<b>WRD150 1x75 b40 A2/ EPDM</b>	1610150075	4052487042208
	90	Fränkische Rohrwerke	KABUFLEX	<b>WRD150 1x90 b40 A2/ EPDM</b>	1610150090	4052487042215
	110	Fränkische Rohrwerke	KABUFLEX	<b>WRD150 1x110 b40 A2/EPDM</b>	1610150110	4052487042222
200	110	Fränkische Rohrwerke	KABUFLEX	<b>WRD200 1x110 b40 A2/EPDM</b>	1610200110	4052487042239
	125	Fränkische Rohrwerke	KABUFLEX	<b>WRD200 1x125 b40 A2/EPDM</b>	1610200125	4052487042253
	160	Fränkische Rohrwerke	KABUFLEX	<b>WRD200 1x160 b80 A2/EPDM</b>	1610200160	4052487042277
250	160	Fränkische Rohrwerke	KABUFLEX	<b>WRD250 1x160 b80 A2/EPDM</b>	1610250160	4052487042314
	200	Fränkische Rohrwerke	KABUFLEX	<b>WRD250 1x200 b80 A2/EPDM</b>	1610250300	4052487181907

GTIN and article number depend on the type of pipe and pipe manufacturer.  
Additional sizes on request.



Sectional drawing: Positioning in the bore



Detailed view: Clip ring/seal



WRD200 1x125 A2/EPDM55 e.g. Kabuflex/Fränkische



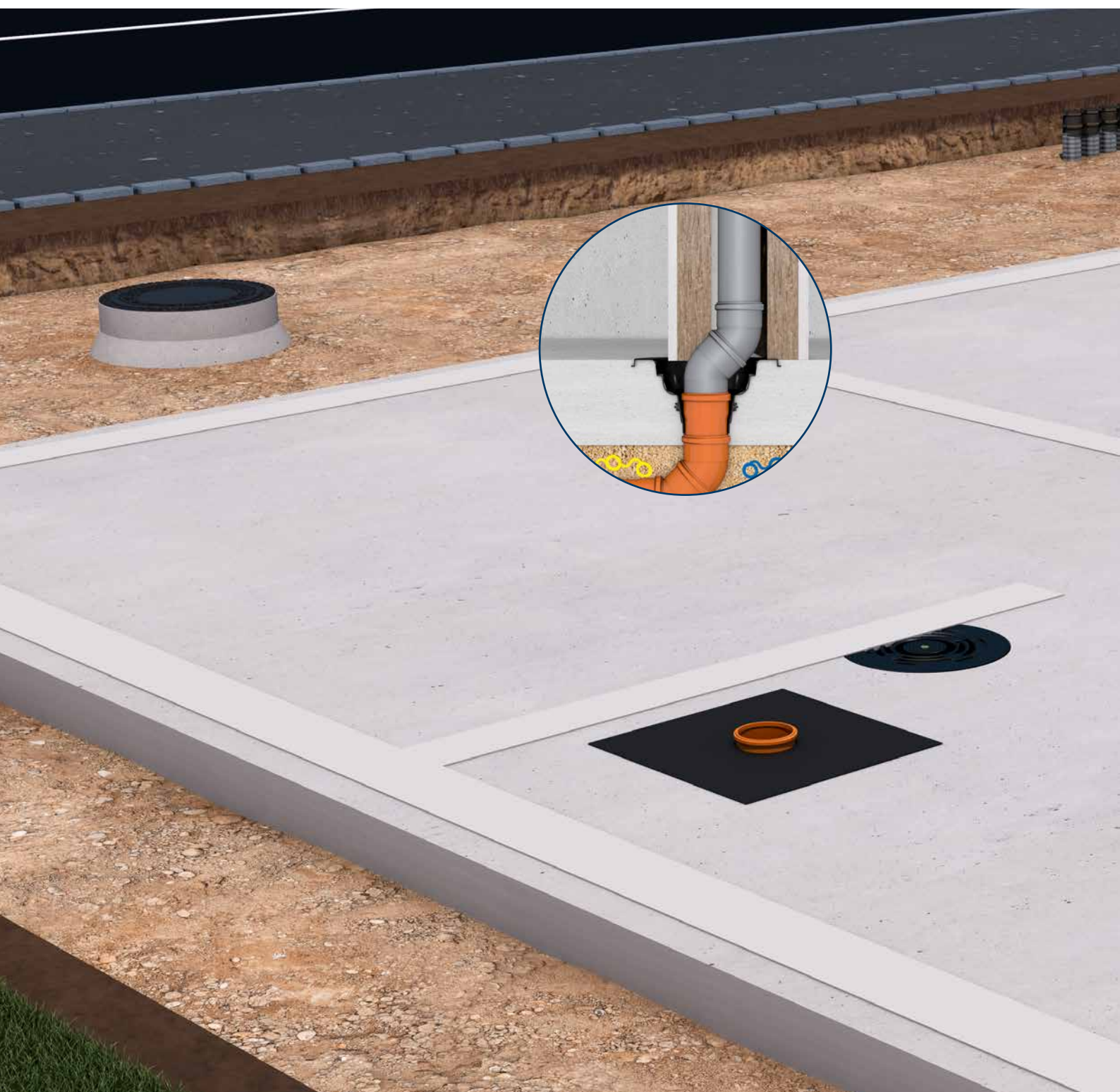
### Accessories

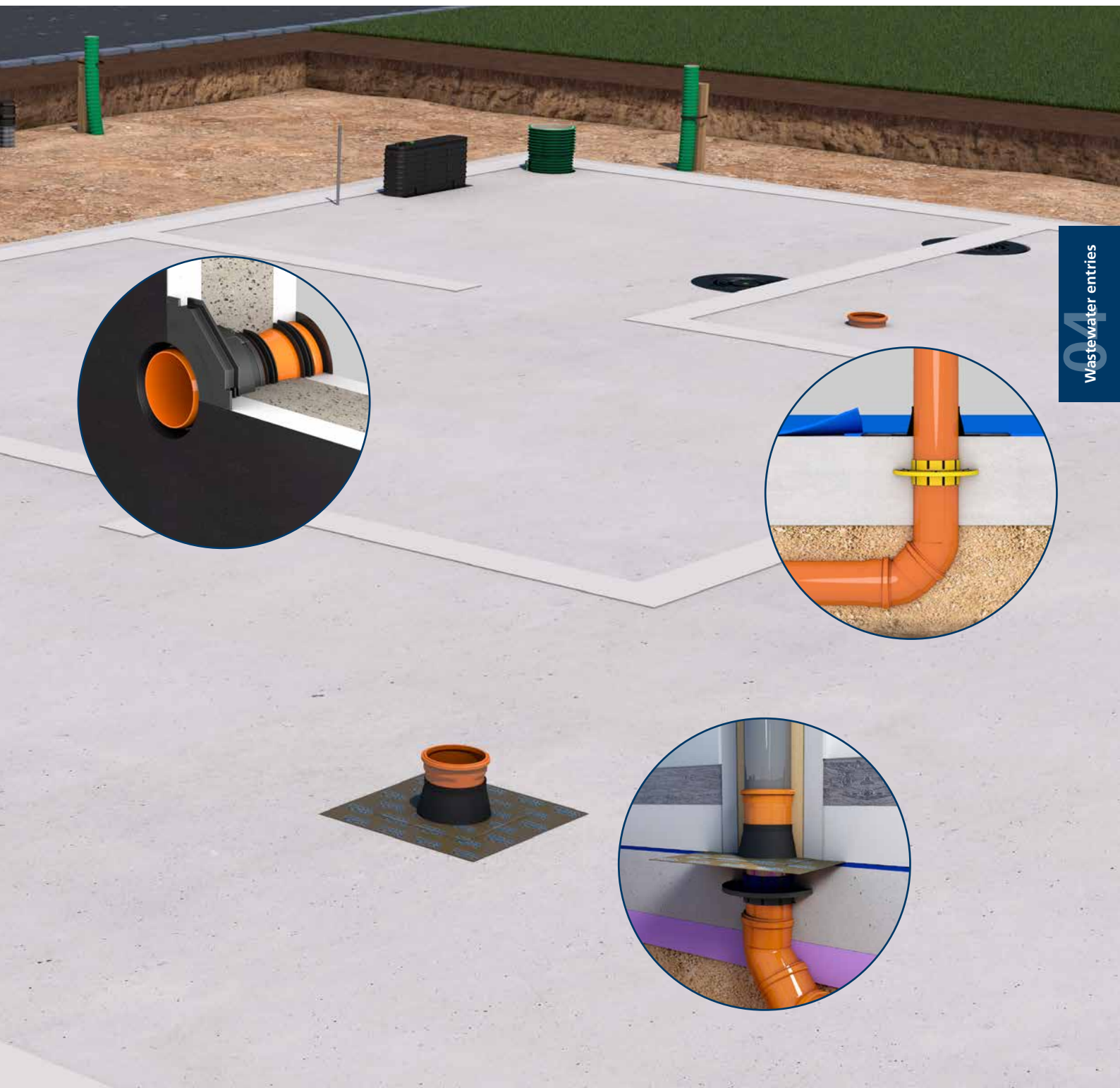
Figure	Item	Article code	Article number	GTIN
	Core drill hole sealant for coating drill hole walls	<b>KBV 2K</b>	354040001	4052487168533

# 04 Wastewater entries

Alongside connections such as those supplying power, gas, water and telecommunications, every home requires a connection for waste water.

So that your building is sealed right from the start, Hauff-Technik offers a range of varied and innovative solutions for sealing waste water lines in basement walls or floor slabs, are both professional and cost-effective.





Wastewater entries

# Tundish

## AT110



Tundish with integrated step protection for setting in floor slab concrete for perfect sealing to the underground sewer pipe. Gastight and watertight connection to the floor slab using integrated 3-ribbed seal. Gastight and watertight connection to the KG pipe using TPE-seal. To compensate an offset (after concreting) between downpipe and floor drain in any direction.

### USP

- with axial tolerance compensation
- easy integration of the vapour barrier using the adhesive flange
- non-trip installation according to DGUV 38 §12a thanks to step safe cover
- with integrated spirit level for positioning the tundish

### Scope of delivery

- 1 piece of offset funnel

- 1 piece of step protection with integrated level
- 1 piece of clamping strap

### Dimensions

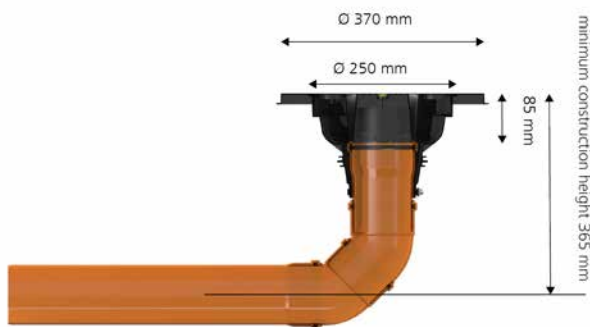
- Offset diameter: 250 mm
- Flange all around: 50mm
- for underground sewage pipe DN 110

### Tightness

- gastight and watertight
- radon-proof



suitable for medium pipe OD (mm)	Article code	Packing unit	Article number	GTIN
110	AT110	1	827001601	4052487171663
		8		4052487224314
		32		4052487224321



Dimensioning connection funnel AT110



AT110 installed in the floor slab - slip-resistant and trip-free during the construction phase



AT110 installed in the floor slab, absolutely gas- and watertight, with the option of tolerance compensation and connection of a vapor barrier

# Wall collar

KG-FIX

KGf



Water barrier flange for pressure-tight connection of waste water pipes in floor slabs.

**USP**

- quick, tool-less installation
- contains recycled polymer
- high form stability through combination of materials

**Dimensions**

- Water barrier flange all around: 50mm
- Socket length: 60mm

**Tightness**

- pressure-rated up to 5,0 bar
- radon-proof



Wall collar OD (mm)	suitable for medium pipe OD (mm)	Article code	Packing unit	Article number	GTIN
212	110	<b>KGf110</b>	1	3030537182	4052487244879
			15		4052487244886
227	125	<b>KGf125</b>	1	3030537197	4052487244787
			5		4052487244794
262	160	<b>KGf160</b>	1	3030537198	4052487244817
			5		4052487244824



Wastewater entries

# Wall collar

## HMK

Water barrier flange for watertight connection of pipelines in floor slabs.



### Scope of delivery

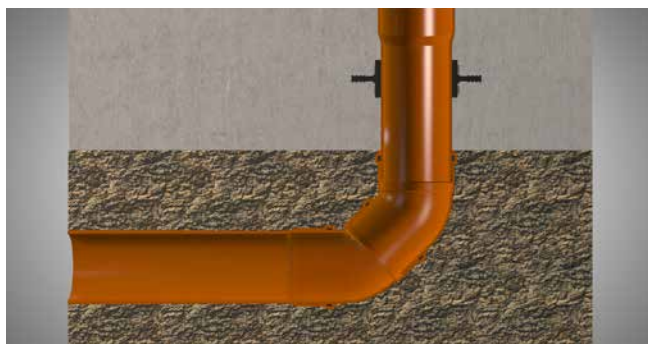
- 1 piece of water barrier flange
- 2 pieces of clamping straps

### Tightness

- gastight and watertight
- radon-proof

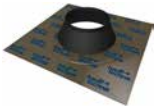
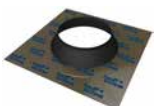


Diameter range (mm)	Wall collar OD (mm)	suitable for medium pipe OD (mm)	Article code	Packing unit	Article number	GTIN
120-130	213	125	<b>HMK125</b>	1	5060150801	4052487233286
				5		4052487233804
135-148	228	140	<b>HMK140</b>	1	5060150802	4052487233279
				5		4052487233811
195-210	288	200	<b>HMK200</b>	1	5060150804	4052487233262
				5		4052487233828



HMK installed in floor slab to seal a wastewater pipe

## Accessories

Figure	Number of cables/medium	Size (mm)	Article code	Article number	GTIN
	1	320 x 320	<b>HFM 1x100-110<sup>1)</sup></b>	3030370212	4052487228053
	1	320 x 320	<b>HFM 1x125-135</b>	3030370213	4052487228060
	1	350 x 350	<b>HFM 1x150-165</b>	3030370214	4052487228077
	1	420 x 420	<b>HFM 1x200-220</b>	3030370215	4052487228084

<sup>1)</sup> e.g. suitable for ESG100 FUBO BHPXL10m

# Universal wall entry

without edges



## UDM

Optimised flow through the wall - prevents blockages and backflow in the drainage system. The special design allows standard KG (2000) pipes to be adapted to the wall thickness and converted into a wall penetration directly on site. Can also be supplied to the required wall thickness.

### USP

- with integrated flange to attach waterproofing material
- no change in flow direction
- pressure-tight after concreting

### Scope of delivery

- Scope of delivery without KG pipe: rubber sleeve, clamping band, sleeve cover with flange and blind cover for knock-in, lamella plug (pre-assembled)

- Scope of delivery with KG pipe: rubber sleeve, clamping strap, sleeve cover with flange and blind cover for knock-in, lamella plug and KG (2000) pipe (pre-assembled ready for installation)





### Dimensions

- DN 110: minimum wall thickness 200 mm
- DN 150: minimum wall thickness 240 mm



### Tightness

- gastight and watertight
- radon-proof



### Universal wall entry without KG-pipe

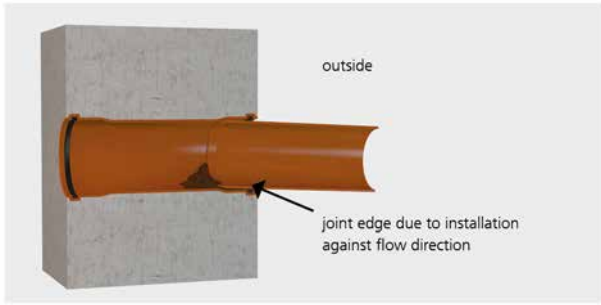
Figure	Nominal diameter of KG pipe	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
	DN 100	110	<b>UDM100</b>	3030300188	4052487215527
	DN 150	160	<b>UDM150</b>	3030300204	4052487215688

### Universal wall entry with KG-pipe

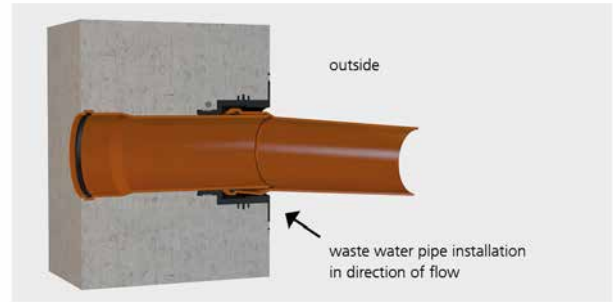
Figure	Nominal diameter of KG pipe	suitable for medium pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	DN 100	110	200	<b>UDM100/200 KG</b>	3030300189	4052487215534
			240	<b>UDM100/240 KG</b>	3030300191	4052487215558
			250	<b>UDM100/250 KG</b>	3030300193	4052487215572
			300	<b>UDM100/300 KG</b>	3030300195	4052487215596
			365	<b>UDM100/365 KG</b>	3030300198	4052487215626
			400	<b>UDM100/400 KG</b>	3030300200	4052487215640
			500	<b>UDM100/500 KG</b>	3030300202	4052487215664
	DN 150	160	240	<b>UDM150/240 KG</b>	3030300205	4052487215695
			250	<b>UDM150/250 KG</b>	3030300207	4052487215718
			300	<b>UDM150/300 KG</b>	3030300210	4052487215749
			365	<b>UDM150/365 KG</b>	3030300213	4052487215770
			400	<b>UDM150/400 KG</b>	3030300215	4052487215794
			500	<b>UDM150/500 KG</b>	3030300217	4052487215817

### Universal wall entry with KG2000-pipe

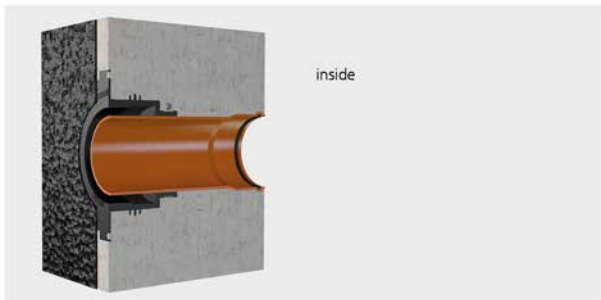
Figure	Nominal diameter of KG pipe	suitable for medium pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	DN 100	110	200	<b>UDM100/200 KG2000</b>	3030300190	4052487215541
			240	<b>UDM100/240 KG2000</b>	3030300192	4052487215565
			250	<b>UDM100/250 KG2000</b>	3030300194	4052487215589
			300	<b>UDM100/300 KG2000</b>	3030300196	4052487215602
			365	<b>UDM100/365 KG2000</b>	3030300199	4052487215633
			400	<b>UDM100/400 KG2000</b>	3030300201	4052487215657
			500	<b>UDM100/500 KG2000</b>	3030300203	4052487215671
	DN 150	160	240	<b>UDM150/240 KG2000</b>	3030300206	4052487215701
			250	<b>UDM150/250 KG2000</b>	3030300208	4052487215725
			300	<b>UDM150/300 KG2000</b>	3030300211	4052487215756
			365	<b>UDM150/365 KG2000</b>	3030300214	4052487215787
			400	<b>UDM150/400 KG2000</b>	3030300216	4052487215800
			500	<b>UDM150/500 KG2000</b>	3030300218	4052487215824



With conventional wall ducts in double push-in socket design, the "flow direction" is interrupted by inserting the KG pipe spigot end on the outside of the building. This leads to a "butt joint" in the event of slight subsidence, which cannot be completely ruled out in the working area. The consequence: Deposits form on the edge, which can lead to "clogging" of the



Due to the design of the UDM, there is no interruption of the "flow direction". If slight settling occurs, which cannot be ruled out in the area of the working chamber, there is no "impact edge". As a result, no deposits can form and the function of the drain is not impaired.



The integrated preparation flange makes it easy to prepare surface waterproofing in accordance with DIN 18533 up to load case W2.1-E. It is therefore not necessary to prepare an elaborate fillet.

# Universal wall entry

without edges for installation in double walls/element walls



## UDME

Optimised flow through the wall - prevents blockages and backflow in the drainage system. Three 3-ribbed seals for sealing in double element walls.

### USP

- with integrated flange to attach waterproofing material
- no change in flow direction
- pressure-tight after concreting

### Scope of delivery

- 1 piece of rubber sleeve with integrated 3-ribbed seal
- 1 piece of clamping strap
- 1 piece of sleeve cover with flange and blind cover for knock in
- 2 additional 3-ribbed seals

- 1 piece of lamella plugs
- 1 piece of KG (2000) pipe (pre-mounted ready for installation)

### Dimensions

- DN 110: minimum wall thickness 240 mm
- DN 150: minimum wall thickness 300 mm

### Tightness


- gastight and watertight
- radon-proof



### Universal wall entry for double walls/element walls with KG-pipe

Figure	Nominal diameter of KG pipe	suitable for medium pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	DN 100	110	240	<b>UDME100/240 KG</b>	3030300221	4052487215855
			250	<b>UDME100/250 KG</b>	3030300223	4052487215879
			300	<b>UDME100/300 KG</b>	3030300225	4052487215893
			365	<b>UDME100/365 KG</b>	3030300228	4052487215923
			400	<b>UDME100/400 KG</b>	3030300230	4052487215947
	DN 150	160	300	<b>UDME150/300 KG</b>	3030300237	4052487216029
			365	<b>UDME150/365 KG</b>	3030300240	4052487216050
			400	<b>UDME150/400 KG</b>	3030300242	4052487216074

**Universal wall entry for double walls/element walls with KG2000-pipe**

Figure	Nominal diameter of KG pipe	suitable for medium pipe OD (mm)	Wall thickness (mm)	Article code	Article number	GTIN
	DN 100	110	240	<b>UDME100/240 KG2000</b>	3030300222	4052487215862
			250	<b>UDME100/250 KG2000</b>	3030300224	4052487215886
			300	<b>UDME100/300 KG2000</b>	3030300227	4052487215916
			365	<b>UDME100/365 KG2000</b>	3030300229	4052487215930
			400	<b>UDME100/400 KG2000</b>	3030300231	4052487215954
	DN 150	160	300	<b>UDME150/300 KG2000</b>	3030300238	4052487216036
			365	<b>UDME150/365 KG2000</b>	3030300241	4052487216067
			400	<b>UDME150/400 KG2000</b>	3030300243	4052487216081



Practical picture of UDM/UDME in concreted wall



Practical image of UDM/UDME installed with PMBC coating and connected KG pipe

# Compensating pipe seal

with segmented rings



## ADM

For fixing in front of core drills, openings or wall sleeves or in front of cut-outs in sheet metal housings. The waterproofing of the wall can easily be integrated due to the design of the product. The same product also seals the incoming pipe.

### USP

- compensation of radial and axial movements
- segmented-ring technology for adjustment to pipe diameters on site

### Scope of delivery

- Fixing elements including sealing ring

### Dimensions

- Flang all around: 30mm
- Outer diameter ADM150: 290 mm
- Outer diameter ADM200: 340 mm

### Tightness

- gastight and watertight

suitable for medium pipe OD (mm)	Wall sleeve/ core drilled hole ID (mm)	Article code	Article number	GTIN
75/90/110	150	<b>ADM150 75/90/110</b>	1400060150	4052487127530
90/110/125/140/160	200	<b>ADM200 90/110/125/140/160</b>	1400061200	4052487126526



Attachment duct collar ADM200 1x90/110/125/140/160



ADM attachment duct collar segment sections

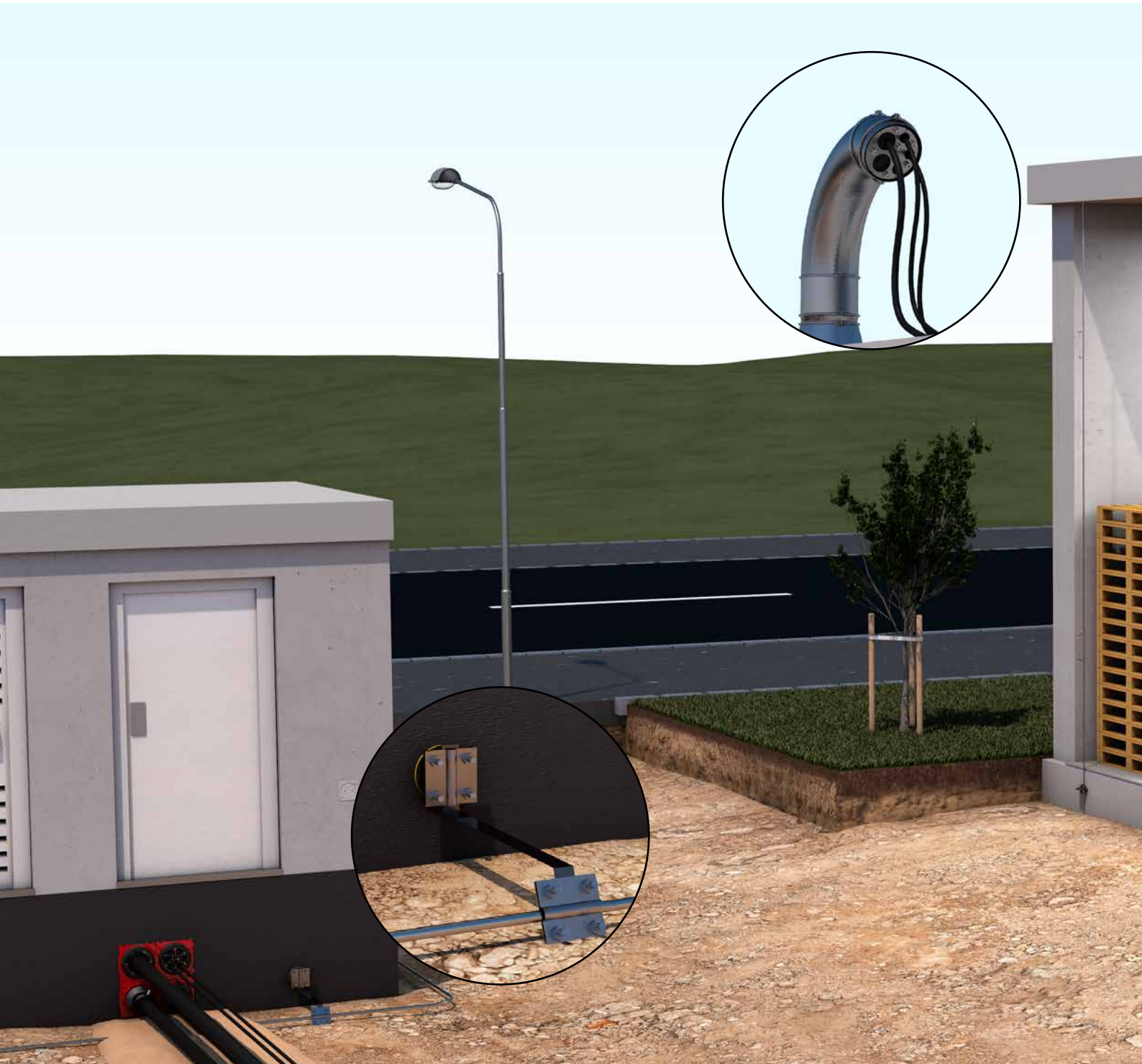
### Accessories

Figure	Item	Article code	Article number	GTIN
	Sealant	<b>Hybrid 7057Z</b>	3030537533	4052487248617

## Earthings

HEA earthing connections are available for delivery as entries or earthing fixed points in various designs to meet prevailing requirements. Both solutions for installation in concrete walls flush with shuttering and solutions for retrofitting in drill holes are available. Hauff-Technik offers an insulated earthing entry specifically for station construction.

The earthing connections, which are manufactured in stainless steel to the highest quality standards, maintain their function throughout their service life. They are used for protective earthing, functional earthing, operational earthing and lightning protection earthing, for example.



## HFM foil sleeves

Vapour barrier foils are increasingly being used on floor slabs. Connection to the relevant building entries or media lines, however, is often not taken into account in advance, or is improvised. For the most common scenarios, the HFM foil sleeve from Hauff-Technik represents the optimal solution.

## Roof entries

Sealing cables and lines for solar, HVAC and mobile communications systems pose our customers with major challenges every single time. Hauff-Technik can offer roof entries like the SHD swan neck entry or HRD-FUFF(A) wall sleeves with fixed/loose flange that are tailor-made to provide the best possible solution for the corresponding roof construction and customer-specific application. The seals between the building and the cables and lines are established with press seals tailor-made specifically to meet customer requirements. We are happy to propose other solutions on request.



# Earthing wall collar

for round and flat conductors



## HMK



Water barrier flange for water pressure-tight integration of earth conductors in floor slabs or concrete walls.

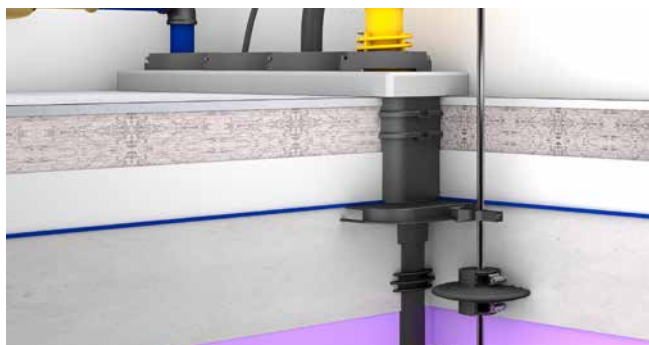
### Scope of delivery

- 1 piece of water barrier flange
- 2 pieces of clamping straps

### Tightness

- gastight and watertight

Figure	Diameter range (mm)	Wall collar OD (mm)	Article code	Packing unit	Article number	GTIN	Price
	8-10	105	<b>HMK8-10</b>	1	3030300037	4052487194068	24,40 €
				50		4052487223539	944,20 €
	30*3,5	120	<b>HMK30*3,5</b>	1	3030303257	4052487222020	26,10 €
				10		4052487197137	201,00 €



# Earthing entry

## HEA



For installation flush with the formwork in waterproof concrete. Earthing connections can be made using the thread on both sides of the conductor core.

### USP

- patented anti-twist protection through special contour of the contact disc

- Contact washer: Ø 72 mm
- For wall thicknesses: > 70 mm

### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

### Scope of delivery

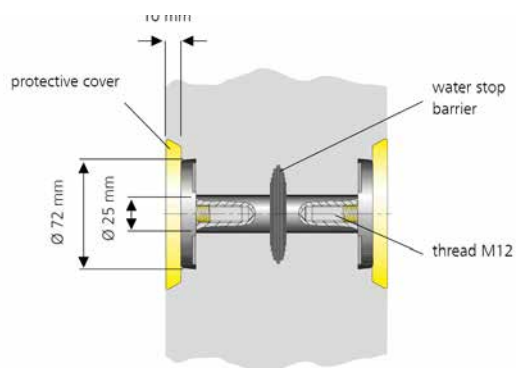
- 2 pieces of protective covers with 4 nail holes

### Dimensions

- Conductor core: round, Ø 25 mm

Threaded bolt	Wall thickness (mm)	Article code	Article number	GTIN
M12	70	<b>HEA M12/70</b>	1700010070	4052487044479
M12	100	<b>HEA M12/100</b>	1700010100	4052487044493
M12	150	<b>HEA M12/150</b>	1700010150	4052487044509
M12	200	<b>HEA M12/200</b>	1700010200	4052487044516
M16		<b>HEA M16/200</b>	1700020020	4052487044530

Intermediate sizes possible in 10 mm increments.  
Also available with M16 thread.



# Insulated earthing entry

## HEA IS

Specifically for transformer/substations. Installed during the formwork process. Earthing connections to the building can be made with the thread on both sides.



### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- protective cover on both sides

### Dimensions

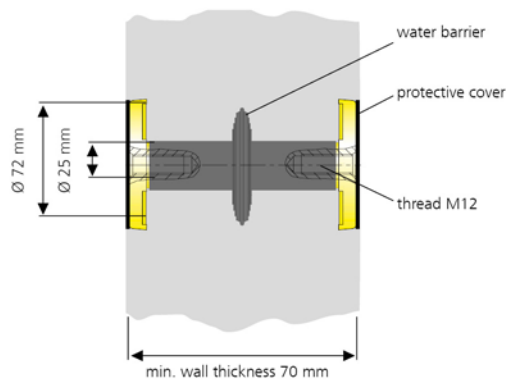
- Conductor core: round, Ø 25 mm
- Contact washer: Ø 72 mm
- Minimum wall thickness: 70 mm

### Tests/Standards

- according VDE 0101, EN 50522

Wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
100	M12	<b>HEA IS M12/100</b>	1710020100	4052487045308
150	M12	<b>HEA IS M12/150</b>	1710020150	4052487045360
200	M12	<b>HEA IS M12/200</b>	1710020156	4052487045384
250	M12	<b>HEA IS M12/250</b>	1710020157	4052487045391
350	M12	<b>HEA IS M12/350</b>	1710020350	4052487206419

Intermediate sizes possible in 10 mm increments.



# Earthing entry

with connecting lug and cross-clamp



## HEA PK

For installation flush with the formwork in waterproof concrete. Earthing connections can be made on the inside and outside with the thread on both sides. An earthing connection can be made to the wall using a lug with a cross clamp.

### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 1 piece of cross-clamp for connecting reinforcement/foundation earthing
- 2 pieces of protective covers with 4 nail holes

### Dimensions

- Conductor core: round, Ø 25 mm
- Conductor core connection: with M16 threaded bolt
- Contact washer: Ø 72 mm

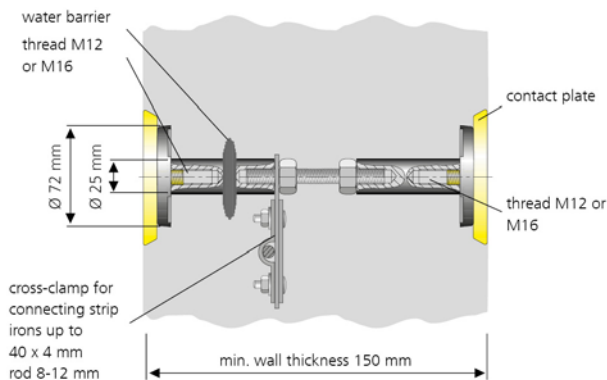
### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
150	M12	<b>HEA PK M12/150</b>	1700030150	4052487141963
200	M12	<b>HEA PK M12/200</b>	1700030200	4052487136532
250	M12	<b>HEA PK M12/250</b>	1700030250	4052487136587

Wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
150	M16	<b>HEA PK M16/150</b>	1700031150	4052487164795
200	M16	<b>HEA PK M16/200</b>	1700031200	4052487136655
250	M16	<b>HEA PK M16/250</b>	1700031250	4052487136686

Intermediate sizes possible in 10 mm increments.  
Short-circuit resistance up to 10 KA / 1s (VDE 0101 / E DIN EN 50522)



# Earthing entry

for retrofit installation



## HEA N

Sealing to the wall is provided on both sides by a surface seal, which is pressed to the wall with nuts. Flat or round earthing straps can be connected using a connection lug with cross clamp.

### Scope of delivery

- 1 piece of connection lug and cross-clamp

### Dimensions

- Contact washer: Ø 72 mm
- Conductor core: M16 threaded rod
- Required drill hole: 20 mm

- Wall thicknesses: up to 600, thicker walls on request

### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Maximum wall thickness	Threaded bolt	Article code	Article number	GTIN
200	M16	<b>HEA N M16/200</b>	1700050010	4052487044592
600	M16	<b>HEA N M16/600</b>	1700050020	4052487044608

# Earthing entry

for retrofit installation



## HEA ND

For retrofit installation in existing walls with perimeter insulation. Sealing to the wall is provided on both sides by a surface seal, which is pressed to the wall with nuts. Flat or round earthing straps can be connected using a connection lug with cross clamp.

### Scope of delivery

- 1 piece of connection lug and cross-clamp

### Dimensions

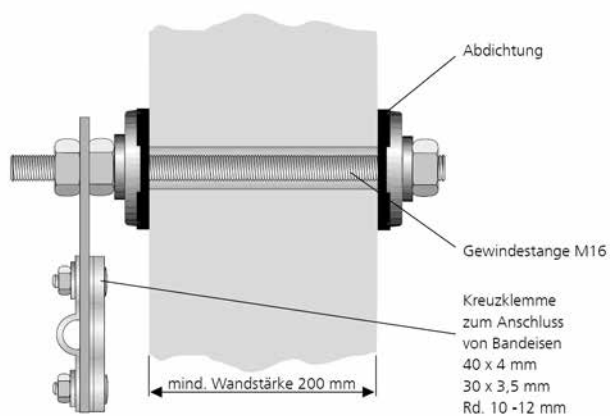
- Contact washer: Ø 72 mm
- Conductor core: M16 threaded rod
- Required drill hole: 20 mm

- For wall thicknesses up to 400 mm, thicker walls on request
- For perimeter insulation: up to 200 mm

### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Maximum wall thickness	Threaded bolt	Article code	Article number	GTIN
400	M16	<b>HEA ND M16/400</b>	1700050120	4052487044615



# Earthing entry

for building entry according to DIN 18533 (black tank)



## HEA W

For wall installation flush with formwork in buildings with outer seal according to DIN 18533. The outer seal is integrated with a fixed/loose flange. The earthing connections are made using the cross clamp or the connection thread.

### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 1 piece of cross-clamp with M20 thread

### Dimensions

- Fixed/loose flange: OD 210 mm
- Conductor core: round, Ø 25 mm

- Conductor core connection: with M16 threaded bolt
- Contact washer: Ø 72 mm
- Minimum wall thickness: 180 mm

### Tests/Standards

- To DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
200	M12	<b>HEA W M12/200</b>	1700040200	4052487136518
	M16	<b>HEA W M16/200</b>	1700041200	4052487136662

# Earthing entry

for double walls/element walls



## HEA EW

For installation in the precast factory, provides a reliable seal to the precast element and the on-site concrete. Earthing connections can be made using the thread on both sides of the conductor core.

### USP

- three water barriers
- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 2 pieces of protective covers with 4 nail holes

### Dimensions

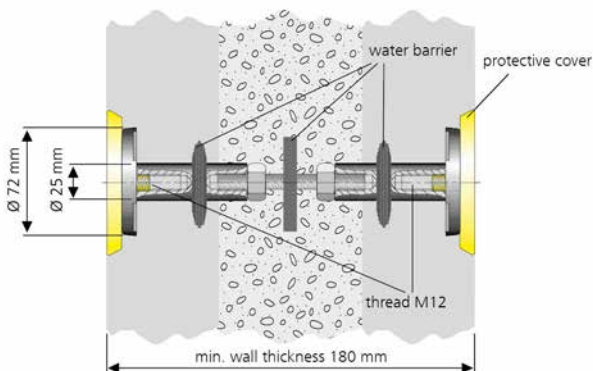
- Conductor core: round, Ø 25 mm

- Conductor core connection: with M16 threaded bolt
- Contact washer: Ø 72 mm
- Minimum wall thickness: 170 mm

### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
360	M12	<b>HEA EW M12/360</b>	1700020690	4052487127691
180	M12	<b>HEA EW M12/180</b>	1700020510	4052487127639
190	M12	<b>HEA EW M12/190</b>	1700020520	4052487127646
200	M12	<b>HEA EW M12/200</b>	1700020530	4052487127653
240	M12	<b>HEA EW M12/240</b>	1700020570	4052487127660
250	M12	<b>HEA EW M12/250</b>	1700020580	4052487127677
300	M12	<b>HEA EW M12/300</b>	1700020630	4052487127684
400	M12	<b>HEA EW M12/400</b>	1700020695	4052487129497



# Flexible earthing entry

## HEA PF



With flexible steel wire, for offset positioning of earthing connections in the vertical and lateral position. A cross clamp (accessory) can be used to make an optional connection to the armouring.

### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 2 pieces of protective covers with 4 nail holes

### Dimensions

- Conductor core: round, Ø 25 mm

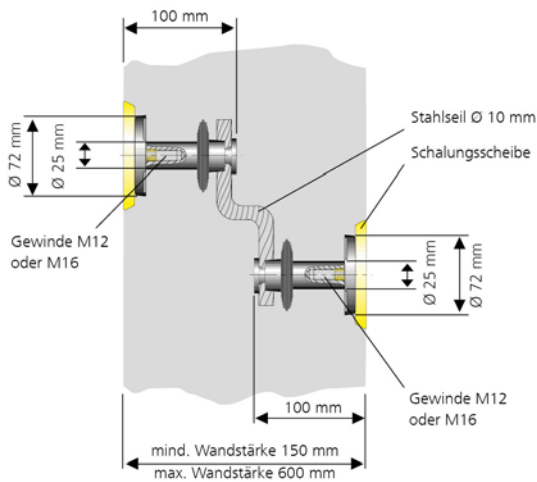
- Contact washer: Ø 72 mm
- Steel cable: Ø 10 mm

### Tests/Standards

- DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Threaded bolt	Article code	Article number	GTIN
M12	<b>HEA PF M12/600</b>	1700060010	4052487044622
M16	<b>HEA PF M16/600</b>	1700060020	4052487044639

Additional sizes on request.



# Earthing fixed point

with cross-clamp



## HEA P

For earthing connection using the cross clamp, for installation flush with the formwork. An earthing connection can be made using the thread in the conductor core.

### USP

- patented anti-twist protection through special contour of the contact disc
- Contact washer:  $\varnothing$  72 mm
- Distance between contact washer and cross-clamp: 120 mm

### Scope of delivery

- 1 piece of protective cover with 4 nail holes

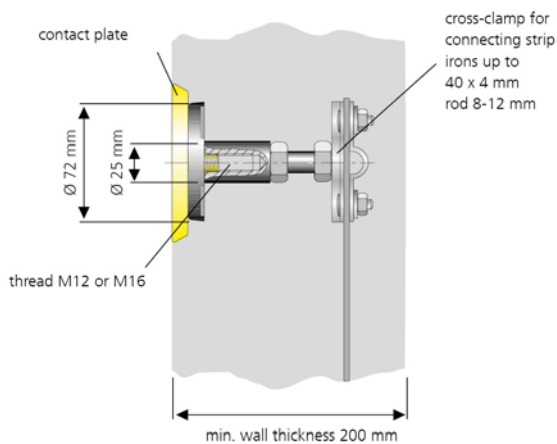
### Dimensions

- Conductor core: round,  $\varnothing$  25 mm

### Tests/Standards

- To DIN 18014
- DIN EN 62305-3
- VDE 0185-305-3 (with lightning protection application)

Threaded bolt	Article code	Article number	GTIN
M12	<b>HEA P M12</b>	1700100010	4052487044745
M16	<b>HEA P M16</b>	1700100020	4052487044752



# Earthing fixed point

with welding groove

## HEA A

For earthing connection using the welding groove, for installation flush with the formwork. An earthing connection can be made using the thread in the conductor core. The HEA-A is primarily used in precast elements.



### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 1 piece of heat-resistant protective foil

### Dimensions

- Conductor core: round, Ø 25 mm

- Contact washer: Ø 72 mm
- Groove for welding connection: for round steel 10 - 12 mm
- Distance between contact washer and weld groove: 40/50 or 70 mm

### Tests/Standards

- Short-circuit-tested to VDE 0101
- EN 50522

Distance shuttering - reinforcement	Article code	Article number	GTIN
50	<b>HEA A M12/50</b>	1700300500	4052487124140
70	<b>HEA A M12/70</b>	1700300520	4052487131407

# Earthing fixed point

for weld or clamp connection

## HEA S

For earthing connection with screw-on steel rod, for installation flush with formwork. An earthing connection can be made using the thread in the conductor core. The HEA-S is primarily used in on-site concrete.



### USP

- patented anti-twist protection through special contour of the contact disc

### Scope of delivery

- 1 piece of heat-resistant protective foil

### Dimensions

- Conductor core: round, Ø 25 mm
- Contact washer: Ø 72 mm
- Minimum wall thickness: 200 mm

### Tests/Standards

- Short-circuit-tested to VDE 0101
- EN 50522

Minimum wall thickness (mm)	Threaded bolt	Article code	Article number	GTIN
200	M12	<b>HEA S M12</b>	1700080010	4052487044677
200	M16	<b>HEA S M16</b>	1700080020	4052487044691

# Magnetic formwork disc

for Earthings

HEA MGS



Article code	Article number	GTIN
HEA MGS M12	3030634845	4052487250795

# Connection lug

HEA ASL A4

For connecting earthing conductors, potential equalisation bars or lightning protection technology.



**Dimensions**

- Connection bracket: 99 x 30 mm, thickness 3 mm

Threaded bolt	Article code	Article number	GTIN
M12	HEA ASL M12 A4	1700170010	4052487044950
M16	HEA ASL M16 A4	1700170020	4052487044967

# Hot-melt adhesive tape

Hatetherm Scapa 0485

Cold-applied hot-melt adhesive tape with excellent adhesive strength and high sealing properties. Bonds and seals on all cable sheath materials and metal.



**Dimensions**

- Thickness: 2.5 mm
- Width: 35 mm
- Roll length: 3 m

Article code	Article number	GTIN
Hatetherm	316010000	4052487006668



# Connection bolt

## HEA ASB

For fixing into the connection thread of earthing penetrations or earthing fixed points. For example, the connection bolt can be used to connect a cable lug.



### Dimensions

- Length: 75 mm

### ST-TZN

Threaded bolt	Article code	Article number	GTIN
M12	<b>HEA ASB M12 St-tzn</b>	1700110010	4052487044769
M16	<b>HEA ASB M16 St-tzn</b>	1700110020	4052487044776

### A4

Threaded bolt	Article code	Article number	GTIN
M12	<b>HEA ASB M12 A4</b>	1700110040	4052487044790
M16	<b>HEA ASB M16 A4</b>	1700110050	4052487044806

# Cross-clamp

## HEA KKL

For fixing into the connection thread of earthing penetrations or earthing fixed points. Allows the connection of round or flat rods.



### Dimensions

- Length: approx. 50 mm
- For flat earthing strap 40 x 5 or round earthing conductor Rd 8 - 12

### ST-TZN

Threaded bolt	Article code	Packing unit	Article number	GTIN
M12	<b>HEA KKL M12 St-tzn</b>	1	1700120030	4052487044875

### A4

Threaded bolt	Article code	Packing unit	Article number	GTIN
M12	<b>HEA KKL M12 A4</b>	1	3030300276	4052487216418
M16	<b>HEA KKL M16 A4</b>	1	1700120020	4052487044868

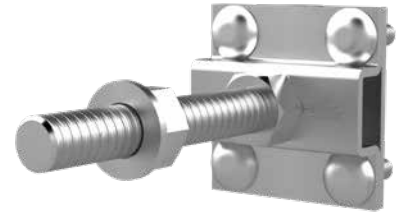


## Cross-clamp

for perimeter insulation applications

### HEA KKL DM

With longer bolts for perimeter insulation. They can be screwed into the connection threads of earthing penetrations and earthing fixed points and enable the connection of round or flat rods.



Threaded bolt	Article code	Article number	GTIN
M12	<b>HEA KKL DM M12 A4</b>	1700130010	4052487044882
M16	<b>HEA KKL DM M16 A4</b>	1700130020	4052487044899

## Connection clamp

### HEA AKL

Connection clamps can be used to create clamp connections for round and flat rods.



#### Dimensions

- Connection clamp: 70 x 70 mm
- For flat earthing strap 40 x 5 or round earthing conductor Rd 8 - 12

Article code	Article number	GTIN
<b>HEA AKL St-tzn</b>	1700140010	4052487044905
<b>HEA AKL A4</b>	1700140020	4052487044912

# Swan neck roof entry

## SHD



Suitable for all standard flat roof structures. The flexible and modular system can be adjusted in height and rotated 360°. Possible applications include mobile communications, solar and air conditioning technology.

### USP

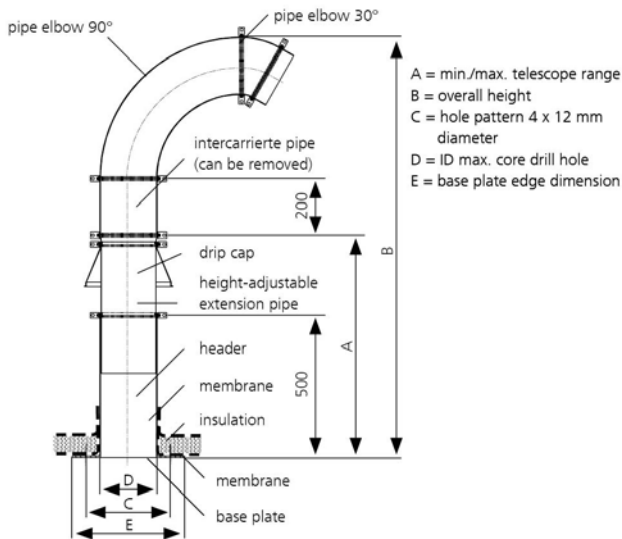
- low transport weight thanks to single components

### Scope of delivery

- 1 piece of swan neck entry with drip cap
- Installation accessories

A (mm)	B (mm)	C (mm)	D (ID mm)	E (mm)	Article code	Article number	GTIN
600 - 950	1050 - 1400	250	100	300	<b>SHD100 fvz</b>	1001094300	4052487025829
	1175 - 1525	300	150	350	<b>SHD150 fvz</b>	1001094500	4052487025843
	1300 - 1650	350	200	400	<b>SHD200 fvz</b>	1001094000	4052487025805
	1550 - 1900	450	300	500	<b>SHD300 fvz</b>	1001095000	4052487025867

A = Telescopic range min/max, B = Total height, C = Hole pattern 4 x Ø 12 mm, D = Max. core drill diameter, E = Edge dimension base plate



# Swan neck cable seal

## SKD G ZxD b30 A2/EPDM55

A press seal designed for the swan neck entry SHD which is installed after cables have been laid.



### Scope of delivery

- 1 piece of lubricant stick

### Dimensions

- Press plates: 5 mm

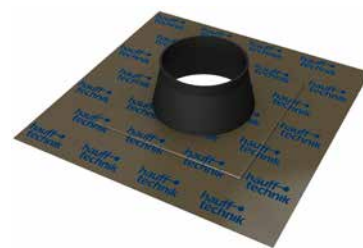
- Outer diameter adapted to the nominal width of the swan neck entry
- Sealing width: 30 mm, on request 60 mm

Figure	Item	Bestellbezeichnung	Article number
	Swan neck cable seal	SKD100 G ZxD b30 A2/EPDM55	*
		SKD150 G ZxD b30 A2/EPDM55	
		SKD200 G ZxD b30 A2/EPDM55	
		SKD300 G ZxD b30 A2/EPDM55	

Article number and GTIN on request

# Foil sleeve

for entries through the floor slab



## HFM

Hauff foil sleeve for the safe connection of penetrations through the floor slab to a vapour barrier foil, radon foil or other sheet-like sealing on the floor slab.

### USP



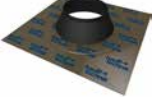
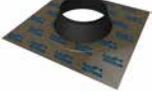
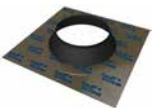
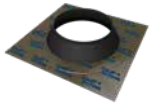

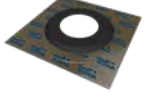
- easy integration of the vapour barrier or radon foil
- prevents convection and therefore the ingress of radon gas into the building

### Tightness

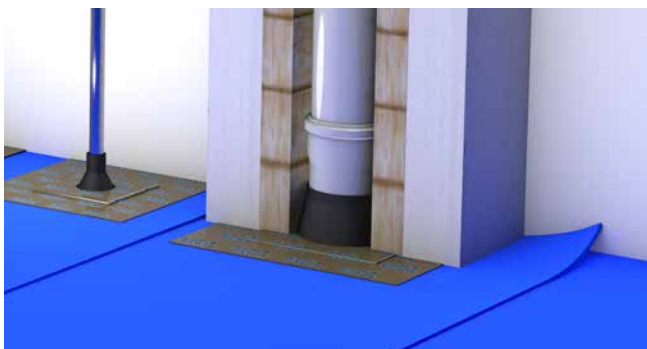
- gastight
- radon-proof

Figure	Number of cables/medium	Size (mm)	Article code	Article number	GTIN
	1	150 x 150	<b>HFM 1x4-8</b>	3030370203	4052487227971
	1	150 x 150	<b>HFM 1x8-12</b>	3030370204	4052487227988
	1	150 x 150	<b>HFM 1x15-22</b>	3030370206	4052487227995
	1	150 x 150	<b>HFM 1x25-32</b>	3030370207	4052487228008
	1	230 x 230	<b>HFM 1x32-40</b>	3030370208	4052487228015
	1	230 x 230	<b>HFM 1x40-55</b>	3030370209	4052487228022
	1	230 x 230	<b>HFM 1x50-72</b>	3030370210	4052487228039





Figure	Number of cables/medium	Size (mm)	Article code	Article number	GTIN
	1	230 x 230	<b>HFM 1x72-90</b>	3030370211	4052487228046
	1	320 x 320	<b>HFM 1x100-110<sup>1)</sup></b>	3030370212	4052487228053
	1	320 x 320	<b>HFM 1x125-135</b>	3030370213	4052487228060
	1	350 x 350	<b>HFM 1x150-165</b>	3030370214	4052487228077
	1	420 x 420	<b>HFM 1x200-220</b>	3030370215	4052487228084
	1	580 x 580	<b>HFM 1x250-270</b>	3030629494	4052487249973
	1	580 x 580	<b>HFM 1x230-250</b>	3030370217	4052487228091
	1	580 x 580	<b>HFM 1x300-340</b>	3030629495	4052487249980

<sup>1)</sup> e.g. suitable for ESG100 FUBO BHPXL10m



Foil sleeves for earthing conductors and waste water pipes

**Accessories**

Figure	Item	Article code	Article number	GTIN
	Adhesive primer for Hauff foil sleeves	<b>HFM P</b>	3030375457	4052487238526
	Squeegee for Hauff foil sleeves	<b>HFM APR</b>	3030370823	4052487238519

# Fire protection kit S90

For core drills and wall sleeves



## HSS KB FR HRD

Gas- and watertight fire protection seal in accordance with fire resistance class S90 to DIN 4102-9 for installation in core drill holes or plastic wall sleeves. Sealing is performed using the HRD press seals. The protection is approved for all types of cable in wall openings up to Ø 300 mm.

### USP

- fire protection class S90 in combination with pressure-tight press seals
- one-sided installation of fire-stop pads

### Scope of delivery

- Wall openings up to Ø 100 mm: 1 set of HVS pads for full assignment (without cable): 2x HVS-K-250, 3x HVS-KB-60
- Wall openings up to Ø 150 mm: 1 set of HVS pads for full assignment (without cable): 2x HVS-K-400, 3x HVS-K-250, 3x HVS-KB-60

- Stainless steel clamping strap
- 1 piece of Identification sign

### Dimensions

- Barrier thickness: min. 280 mm
- Wall thickness at and above: 150 mm
- For core drills ID: 70 - 300 mm
- For plastic wall sleeves ID: 80 - 300 mm

### Tests/Standards

- DIBT approval Z-19.15-1906 to DIN 4102-9

Wall sleeve/ core drilled hole ID (mm)	Article code	Article number	GTIN
100	<b>HSS100 KB FR HRD</b>	5030010032	4052487233569
150	<b>HSS150 KB FR HRD</b>	5030010033	4052487233545
200	<b>HSS200 KB FR HRD</b>	2600010007	4052487063395



HSS - installation fire-stop pads in wall insert HSI150-K2, sealing with system cover or SEG-MENTO



HSS - installation in core drill hole with HRD press seals

# Fire protection kit S90

for HSI150 system cover

## HSS150 HSI150



Gas-tight and watertight fire protection seal in accordance with fire resistance class S90 to DIN 4102-9 for installation in the HSI150 system for walls. Sealing is provided using system covers. The barrier is approved for use with all types of cable in walls.

**USP**

- fire protection class S90 combined with system covers
- one-sided installation of fire-stop pads

**Scope of delivery**

- 1 set of HVS pads for full assignment without cable: 1x HVS-K-720, 1x HVS-K-400, 4x HVS-K-250/2, 4x HVS-KB-60
- Stainless steel clamping strap

- 1 piece of Identification sign

**Dimensions**

- Barrier thickness: min. 440 mm
- Wall thickness at and above: 240 mm
- Maximum package size: 430 x 1270 mm (2x6)

**Tests/Standards**

- DIBT approval Z-19.15-1906 to DIN 4102-9

Wall sleeve/ core drilled hole ID (mm)	Article code	Article number	GTIN
150	<b>HSS150 HSI150</b>	5030010030	4052487233606



# Fire protection kit S90

for HSI150 press seal



## HSS150 HSI150 HRD

Gas-tight and watertight fire protection seal in accordance with fire resistance class S90 to DIN 4102-9 for installation in the HSI150 system for walls. Sealing is performed using the HRD press seals. The barrier is approved for use with all types of cable in walls.

### USP

- fire protection class S90 combined with HRD 150/160 press seal
- one-sided installation of fire-stop pads

### Scope of delivery

- 1 set of HVS pads for full assignment (without cable): 2x HVS-K-400, 3x HVS-K-250, 3x HVS-KB-60
- Stainless steel clamping strap

- 1 piece of Identification sign

### Dimensions

- Wall thickness at and above: 150 mm
- Barrier thickness: min. 280 mm
- Maximum package size: 430 x 1270 mm (2x6)

### Tests/Standards

- DIBT approval Z-19.15-1906 to DIN 4102-9

Wall sleeve/ core drilled hole ID (mm)	Article code	Article number	GTIN
150	<b>HSS150 HSI150 HRD</b>	5030010031	4052487233583

# Fire protection kit S90

For core drills and wall sleeves

## HVS KK



Fire barrier in accordance with fire resistance class S90 to DIN 4102-9 for installation in core drill holes or plastic wall sleeves.

### USP

- fire protection S90
- one-sided installation of fire-stop pads

### Scope of delivery

- Wall openings up to Ø 100 mm: 3x HVS K250/2, 5x HVS KB60, 2x stainless steel belt, 1x identification sign
- Wall openings up to Ø 150 mm: 2x HVS K400, 5x HVS K250/2, 6x HVS KB60, 2x stainless steel belt, 1x identification sign

- Wall openings up to Ø 200 mm: 2x HVS K720, 2x HVS K400, 5x HVS K250/2, 8x HVS KB60, 4x stainless steel belt, 1x identification sign

### Dimensions

- Barrier thickness: min. 280 mm
- Wall thickness at and above: 150 mm
- For core drill holes Ø: 70 - 200 mm
- For plastic wall sleeves Ø: 80 - 200 mm

### Tests/Standards

- DIBT approval Z-19.15-1906 to DIN 4102-9
- General type certification Z-19.53-2563

Wall sleeve/ core drilled hole ID (mm)	Article code	Article number	GTIN
100	<b>HVS KK100</b>	5030010010	4052487233668
150	<b>HVS KK150</b>	5030010011	4052487233644
200	<b>HVS KK200</b>	5030010012	4052487233620



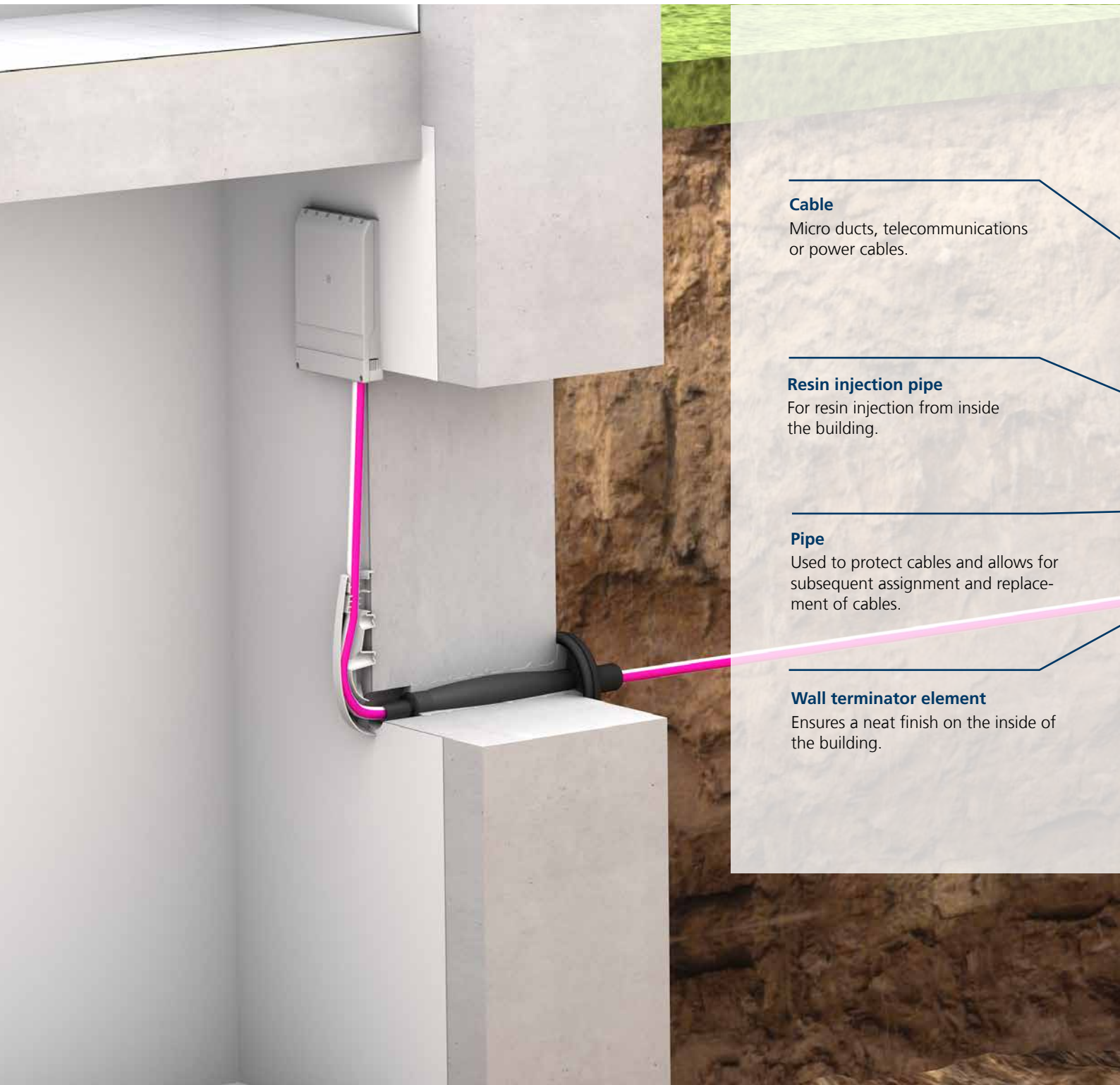
HSS - installation in core drill hole with HRD press seals

# 06 Building entries

Single building entries from Hauff-Technik can be relied upon for professional and reliable seals between buildings and supply lines for gas, water, power or telecommunications. Whether through basement walls or floor slabs, they can be installed quickly and safely in a matter of minutes and are gastight and watertight up to 1 bar.

## The membrane injection system

The MIS (Membrane injection system) is a universal building entry for core drills in the most common wall types. It provides a gas- and watertight seal for house entries through the floor or the wall.



## The advantage

The MIS is a building entry with an integrated injection membrane which ensures controlled and precise resin injection and significantly reduces the installation time of a building entry.

## The usage

The MIS is the perfect and reliable seal for electrical and telecommunication cables, providing gas- and watertight installation in core drill holes with diameters of 25, 40–50, 62–65 or 92–102 mm.

## Structure

**Waterproofing membrane or liquid applied**  
Waterproof sealing of the wall.

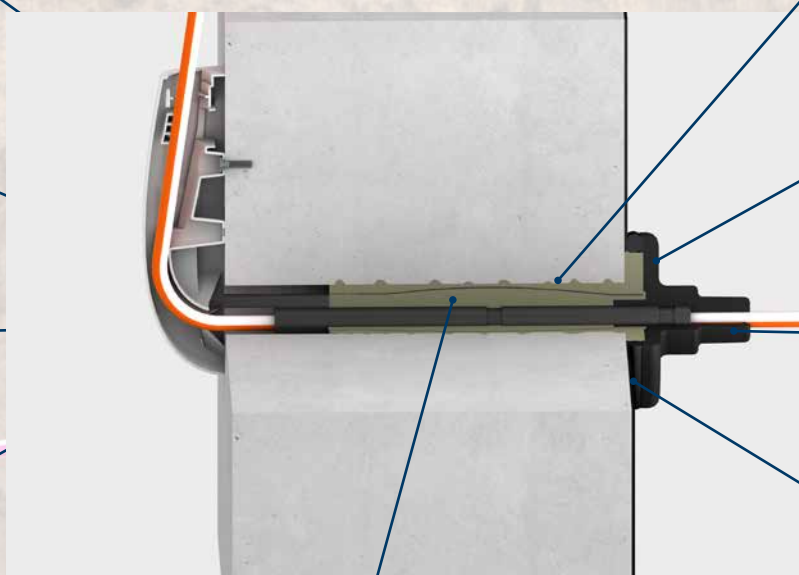
**Perforated membrane**  
Enables controlled resin expansion through the perforation.

**Flange**  
Covers wall breakouts and reinstates the integrity of the waterproofing.

**Seal**  
Ensures water tight sealing of the media cable, telecommunications or power cables.

**Butyl tape**  
Ensures a tight connection between the wall surface and the flange.

**2-Component resin**  
Expands in the opening and creates a watertight sealing.



# Above-ground building entry

for glass fibre duct OD 7 - 12 mm

## 2LINE OHE 1x7-12 SET10

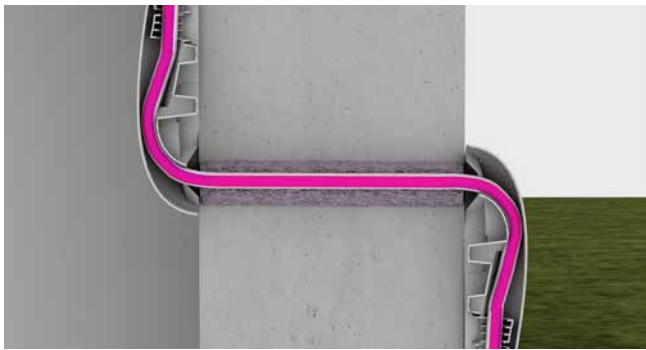


For feeding and sealing of fibre optic cables through the wall above-ground.

### Scope of delivery



- SET10 consisting of:
  - 10 pieces of building entries
  - Wall plug and screws
- 1 piece of EGO FLOTT sealant
- 10 pieces of corrugated pipe Length: 500 mm (only for variant 2LINE OHE 1x7-12 SET10 WR)

suitable for medium pipe OD (mm)	Article code	Article number	GTIN
7-12	<b>2LINE OHE 1x7-12 SET10</b>	3030340562	4052487240512



Installation graphic - OHE

### Accessories

Figure	Item	Article code	Article number	GTIN
	Cartridge gun for resin injection	<b>MIS MW</b>	5060050021	4052487236454
	EGO FLOTT sealant	<b>EGO FLOTT</b>	3030376512	4052487234351

# Fibre optic building entry

for buildings with or without a basement



## GFH20 PRO

For reliable sealing of fibre optic cables.

### USP

- universal building entry with membrane injection system for core holes in the most common types of walls
- enables horizontal or angled installation up to an angle of 45°
- gentle sealing of fibre-optic cables using sealing lips

### Scope of delivery

- 1 piece of GFH20
- 1 piece of Hauff Resinator 2-component resin, 80 ml
- 1 piece of mixing nozzle

- 1 piece of wall terminator element
- suitable number of pipe clamps, depending on variant

### Dimensions

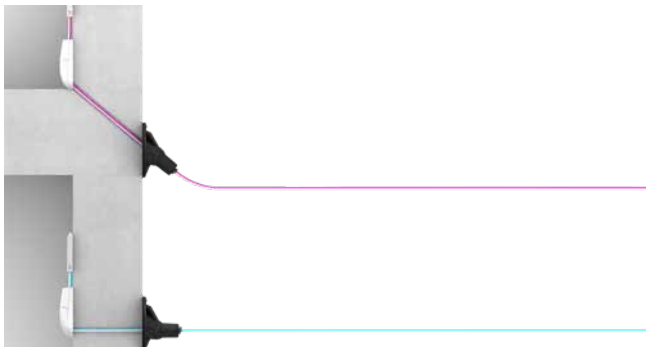
- Application range: 2 fibre-optic cables with  $\varnothing$  7-10 mm or 1 fibre-optic cable with  $\varnothing$  6 - 13 mm or 1 fibre-optic cable with  $\varnothing$  12 - 16 mm
- for drill holes  $\varnothing$ i: 20 mm
- for wall thicknesses starting from 100 mm

### Tightness

- gastight and watertight to 1.0 bar

Number of cables/medium	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
2	7 - 10	<b>GFH20 2x7-10 PRO<sup>1)</sup></b>	2900001311	4052487209823
1	6 - 13	<b>GFH20 1x6-13 PRO</b>	2900001313	4052487209847
1	12 - 16	<b>GFH20 1x12-16 PRO</b>	2900001315	4052487209861

<sup>1)</sup> for 2x10 mm:  $\varnothing$  = 22 mm



GFH20 PRO - Inclined and horizontal installation



Built-in graphics - GFH20 PRO

# Membrane injection system

for buildings with or without a basement



## 2LINE MIS25 PRO

For reliable sealing of fibre optic cables. For installation in all standard wall types to DIN 18533 W1.1-E, W1.2-E, W2.1-E and waterproof concrete according to DIN 1045. Includes 2-component resin Resinator.

### USP

- controlled resin expansion thanks to the perforated membrane
- toolless assembly with Resinator double syringe
- horizontal or angled installation, up to an angle of 45°

- 1 piece of Resinator dual syringe, 25 ml
- 1 piece of wall terminator element

### Dimensions

- for drill holes Øi: 25 mm
- for wall thicknesses starting from 150 mm

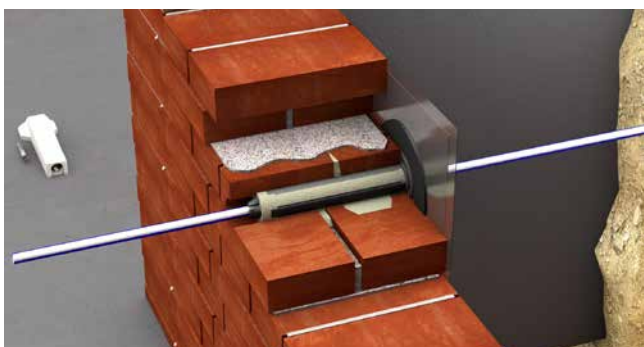
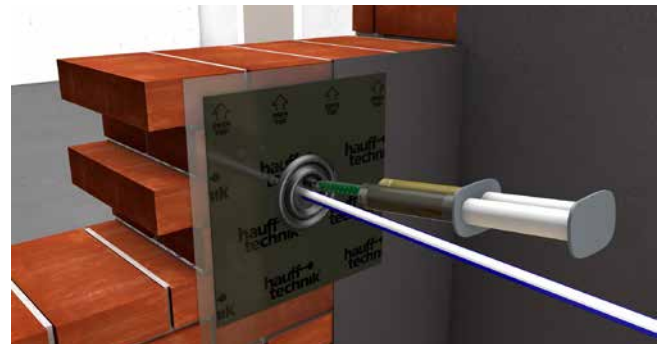
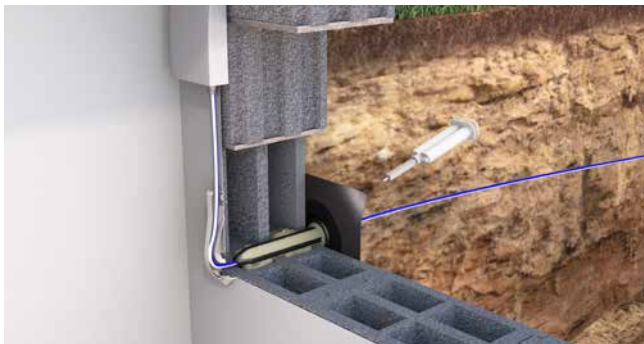
### Scope of delivery

- 1 piece of 2LINE MIS25

### Tightness

- gastight and watertight to 1.0 bar

Number of cables/medium	suitable for medium pipe OD (mm)	Article code	Article number	GTIN
1	6-13	<b>2LINE MIS25 1x6-13 PRO</b>	3030477964	4052487242905



### Accessories

Figure	Item	Article code	Article number	GTIN
	2-component resin Resinator expansion resin	<b>EH Resinator 25</b>	3030506759	4052487244114

# Membrane injection system

for buildings with a basement

## MIS40D



For reliable sealing of fibre optic and telecommunications cables.

### USP

- universal building entry with membrane injection system for core holes in the most common types of walls
- controlled resin discharge through perforated membrane
- sealing lips ensure gentle seal for cables/pipes

- 10 pieces of MIS40
- 10 pieces of wall terminator element
- 10 pieces 2-component resin Resinator, 150 ml
- 1 piece of quick tensioning device MIS40 SVS

### Dimensions

- For core drills ID: 40 - 50 mm

### Tightness

- gastight and watertight to 1.0 bar

### Scope of delivery

- 1 packing unit:

Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
2	5 - 7	1000	200 - 900	<b>MIS40D 2x5-7 BL1000 Set10</b>	3030380163	4052487229920
1	9 - 12			<b>MIS40D 1x9-12 BL1000 Set10</b>	3030380164	4052487229913
2	5 - 7	1300	900 - 1.200	<b>MIS40D 2x5-7 BL1300 Set10</b>	3030391736	4052487230681
1	9 - 12			<b>MIS40D 1x9-12 BL1300 Set10</b>	3030391737	4052487230698



Built-in graphics - MIS40D



Built-in MIS40D

# Membrane injection system

for buildings with or without a basement

## MIS40S



Suitable for angled installation through the wall or floor slab.

### USP

- universal building entry with membrane injection system for core holes in the most common types of walls
- controlled resin discharge through perforated membrane
- sealing lips ensure gentle seal for cables/pipes

- 10 pieces of MIS 40S
- 10 pieces of wall terminator element
- 10 pieces 2-component resin Resinator, 150 ml
- 1 piece of quick tensioning device MIS40 SVS

### Dimensions

- For core drills ID: 40 - 50 mm
- Overall length: 1300 mm

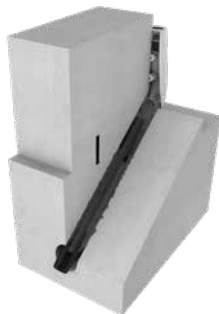
### Scope of delivery

- 1 packing unit:

### Tightness


- gastight and watertight to 1.0 bar

Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
2	5 - 7	1300	200 - 1.200	<b>MIS40S 2x5-7 Set10</b>	3030380167	4052487229883
1	9 - 12			<b>MIS40S 1x9-12 Set10</b>	3030380168	4052487229876



Built-in graphics - MIS40S

### Accessories MIS40

Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Quick tensioning device for MIS 40	<b>MIS40 SVS</b>	1	5060020031	4052487236515
	Wall rosette for MIS building entries	<b>WAR40</b>	1	3030300268	4052487216333
	Wall terminator element For fibre-optic building entry	<b>GFH WAE</b>	1	3030315305	4052487226417
	Tubular guide elbow for MIS 40	<b>MIS40 RB</b>	1	5060020011	4052487236539

# Membrane injection system

for buildings with a basement

## MIS60D

For existing buildings with a basement for reliable sealing of standard water pipes.



### USP

- universal building entry with membrane injection system for core holes in the most common types of walls
- controlled resin discharge through perforated membrane
- sealing lips ensure gentle seal for cables/pipes

### Scope of delivery

- 1 packing unit:
- 10 pieces of MIS 60D including pre-mounted seal insert
- 10 pieces of wall terminator element (only for communication variant)

- 10 pieces of wall rosette (only with electricity variant)
- 10 pieces 2-component resin Resinator, 150 ml
- 1 piece of quick tensioning device MIS60 SVS



### Dimensions

- For core drills  $\varnothing$ : 62 - 65 mm
- For wall thicknesses: from 200 to 1200 mm

### Tightness

- gastight and watertight to 1.0 bar
- radon-proof

Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
4	5 - 7	1000	200 - 900	<b>MIS60D 4x5-7 BL1000 Set10</b>	3030380170	4052487229852
3	10			<b>MIS60D 3x10 BL1000 Set10</b>	3030380171	4052487229845
1	6 - 12			<b>MIS60D 1x6-12 BL1000 Set10</b>	3030380172	4052487229838
1	12 - 18			<b>MIS60D 1x12-18 BL1000 Set10</b>	3030380174	4052487229814
1	18 - 24			<b>MIS60D 1x18-24 BL1000 Set10</b>	3030380175	4052487229807
1	24 - 30			<b>MIS60D 1x24-30 BL1000 Set10</b>	3030380176	4052487229791
1	30 - 34			<b>MIS60D 1x30-34 BL1000 Set10</b>	3030382134	4052487230124
4	5 - 7	1300	900 - 1.200	<b>MIS60D 4x5-7 BL1300 Set10</b>	3030391738	4052487230704
3	10			<b>MIS60D 3x10 BL1300 Set10</b>	3030391739	4052487230711
1	6 - 12			<b>MIS60D 1x6-12 BL1300 Set10</b>	3030391740	4052487230728
1	12 - 18			<b>MIS60D 1x12-18 BL1300 Set10</b>	3030391741	4052487230735
1	18 - 24			<b>MIS60D 1x18-24 BL1300 Set10</b>	3030391742	4052487230742
1	24 - 30			<b>MIS60D 1x24-30 BL1300 Set10</b>	3030391743	4052487230759
1	30 - 34			<b>MIS60D 1x30-34 BL1300 Set10</b>	3030391744	4052487230766

# Membrane injection system

for buildings with or without a basement

## MIS60S



Suitable for angled installation through the wall or floor slab.

### USP

- universal building entry with membrane injection system for angled drill holes through floor slabs or walls
- controlled resin discharge through perforated membrane
- sealing lips ensure gentle seal for cables/pipes

### Scope of delivery

- 1 packing unit:
- 10 pieces of MIS 60S
- 10 pieces of wall terminator element (only for communication variant)

- 10 pieces of wall rosette (only with electricity variant)
- 10 pieces 2-component resin Resinator, 150 ml
- 1 piece of quick tensioning device MIS60 SVS

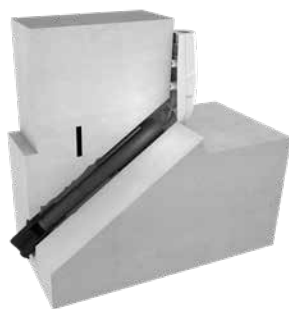
### Dimensions

- For core drills Ø: 62 - 65 mm
- Overall length: 1300 mm

### Tightness

- gastight and watertight to 1.0 bar

Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
4	5 - 7	1300	200 - 1.200	<b>MIS60S 4x5-7 BL1300 Set10</b>	3030380178	4052487229777
3	10			<b>MIS60S 3x10 BL1300 Set10</b>	3030380179	4052487229760
1	6 - 12			<b>MIS60S 1x6-12 BL1300 Set10</b>	3030380180	4052487229753
1	12 - 18			<b>MIS60S 1x12-18 BL1300 Set10</b>	3030380182	4052487229739
1	18 - 24			<b>MIS60S 1x18-24 BL1300 Set10</b>	3030380183	4052487229722
1	24 - 30			<b>MIS60S 1x24-30 BL1300 Set10</b>	3030380184	4052487229715
1	30 - 34			<b>MIS60S 1x30-34 BL1300 Set10</b>	3030382135	4052487230131



Built-in graphics - MIS60S

### Accessories MIS60

Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Quick tensioning device for MIS 60	<b>MIS60 SVS</b>	1	5060020032	4052487236508
	Wall rosette for MIS building entries	<b>WAR60</b>	1	3030300269	4052487216340
	Tubular guide elbow with adapter for MIS 60	<b>MIS60 RB</b>	1	3030300108	4052487113533
	Core drilling cleaning brush for trenchless building connection	<b>MIS REB</b>	1	5060050028	4052487236423
	Wall terminator element For fibre-optic building entry	<b>GFH WAE</b>	1	3030315305	4052487226417

# Membrane injection system

for buildings with a basement



## MIS90D

For reliable sealing of all electricity and telecommunications lines without additional shrinking using a sealing sleeve.

### USP

- universal building entry with membrane injection system for core holes in the most common types of walls
- controlled resin discharge through perforated membrane
- parallel sealing of power, water and communication services

### Scope of delivery

- 1 packing unit:
- 6 pieces of MIS 90 including pre-mounted sleeve cap
- 6 pieces of wall collars

### Dimensions

- For core drills ID: 92 - 102 mm

### Tightness

- gastight and watertight to 1.0 bar

Number of cables/medium overall	Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
3	1	24-52	1000	200 - 900	<b>MIS90D 1x24-52+2x7 K SET</b>	3030300140	4052487113977
	2	7					
	1	24-52	1300	900 - 1.200			
	2	7					
8	1	24-40	1000	200 - 900	<b>MIS90D 1x24-40+3x7-13+2x5-8+2x7 K SET</b>	3030300143	4052487113960
	3	7-13					
	2	5-8					
	2	7					
	1	24-40	1300	900 - 1.200			
	3	7-13					
	2	5-8					
	2	7					
7	1	13-21	1000	200 - 900	<b>MIS90D 1x13-21+3x7-13-1x5-13+2x7 K SET</b>	3030300144	4052487126670
	3	7-13					
	1	5-13					
	2	7					
	1	13-21	1300	900 - 1.200			
	3	7-13					
	1	5-13					
	2	7					

Penetration of the speedpipe through the flange and outside of the sleeve pipe



Built-in graphics - MIS90D



Built-in MIS90D

# Membrane injection system

for buildings with or without a basement



## MIS90S

Suitable for angled installation through the wall or floor slab. For reliable sealing of all water and telecommunications lines without additional shrinking using a sealing sleeve.

### USP

- universal building entry with membrane injection system for angled drill holes through floor slabs or walls
- parallel sealing of power, water and communication services
- controlled resin discharge through perforated membrane

### Scope of delivery

- 1 piece of MIS90S including pre-mounted sleeve cap
- 1 piece of end cap

### Dimensions

- For core drills ID: 92 - 102 mm
- Overall length: 1300 mm

### Tightness

- gastight and watertight to 1.0 bar

Number of cables/medium	suitable for medium pipe OD (mm)	Overall length (mm)	Wall thickness (mm)	Article code	Article number	GTIN
1	24 - 52	1300	200 - 1.200	<b>MIS90S 1x24-52 SET</b>	2900200510	4052487130905
1	24 - 40			<b>MIS90S 1x24-40+3x7-13+2x5-8 SET</b>	2900200520	4052487130912
3	7 - 13			<b>MIS90S 1x13-21+3x7-13+1x5-13 SET</b>	2900200530	4052487133159
2	5 - 8					
1	13 - 21					
3	7 - 13					
1	5 - 13					












Installation graphics - MIS90S

### Accessories MIS90

Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Quick tensioning device for MIS 90	<b>MIS90 SVS</b>	1	5060020034	4052487236492
	Wall rosette for MIS building entries	<b>420 90/100 SG 1x25-63+2x7 EPDM50</b>	1	5060110602	4052487236270
		<b>WAR 90/100 1x63+2x7 EPDM50</b>	1	5060110603	4052487236263

**Accessories MIS and GFH**

Figure	Item	Bestellbezeichnung	VPE	Article number	GTIN
	Lubricant	<b>GML</b>	1	5020050010	4052487238564
	Cartridge gun for resin injection	<b>MIS MW</b>	1	5060050021	4052487236454
	Cartridge gun for side-by-side cartridges	<b>GFH MW Side-by-Side</b>	1	3030326996	4052487224932
	2-component resin iM3000 expansion resin	<b>EH150/700</b>	1	5060050023	4052487234047
	2-component resin M3000 expansion resin	<b>EH300/1400</b>	1	5060050022	4052487236447
	2-component resin Resinator expansion resin	<b>EH Resinator 80</b>	1	2900001354	4052487216517
		<b>EH Resinator 25</b>	1	3030506759	4052487244114
		<b>EH Resinator 150</b>	1	2900001355	4052487216524
	2-component resin Resinator	<b>EH Resinator 300</b>	1	3030546943	4052487248631

# Single building package

for buildings without a basement

## ESH Basic FUBO BHPxm

Single building entry suitable for utilities gas, water or power.



### USP

- suitable for use with all common gas building entry combinations
- tested pressure-tight duct system
- easy integration of the vapour barrier using the adhesive flange

### Scope of delivery

- 1 piece of basic unit, including adhesive flange
- 1 piece of height-adjustable installation fixture with flanges as water barrier

- 1 piece of spiral duct 14078, including sleeve pipe and mounted 3-ribbed seal
- 1 piece of ESH Basic MBK SR1 seal insert
- 1 piece of sealing element for drinking water SDW 1x32/40/50
- 1 piece of sealing element for electricity SDE 1x26-29/36-39/43-46/48-51
- 1 piece of sleeve cap MS78U 1x24-52 for electricity or water
- 1 piece of GMT35 lubricant



### Tightness

- gastight and watertight to 1.0 bar

Total system length (m)	Article code	Article number	GTIN
3.0	<b>ESH Basic FUBO BHP3m</b>	3030474697	4052487240710
6.0	<b>ESH Basic FUBO BHP6m</b>	3030474698	4052487240734
10.0	<b>ESH Basic FUBO BHP10m</b>	3030474699	4052487240741
15.0	<b>ESH Basic FUBO BHP15m</b>	3030474700	4052487240758
25.0	<b>ESH Basic FUBO BHP25m</b>	3030474701	4052487240765



Built-in single-line service entry ESH Basic FUBO SR1 EBT with sealing insert ESH Basic MBK SR1, empty pipe system Hateflex14078 MRD/x and the water division

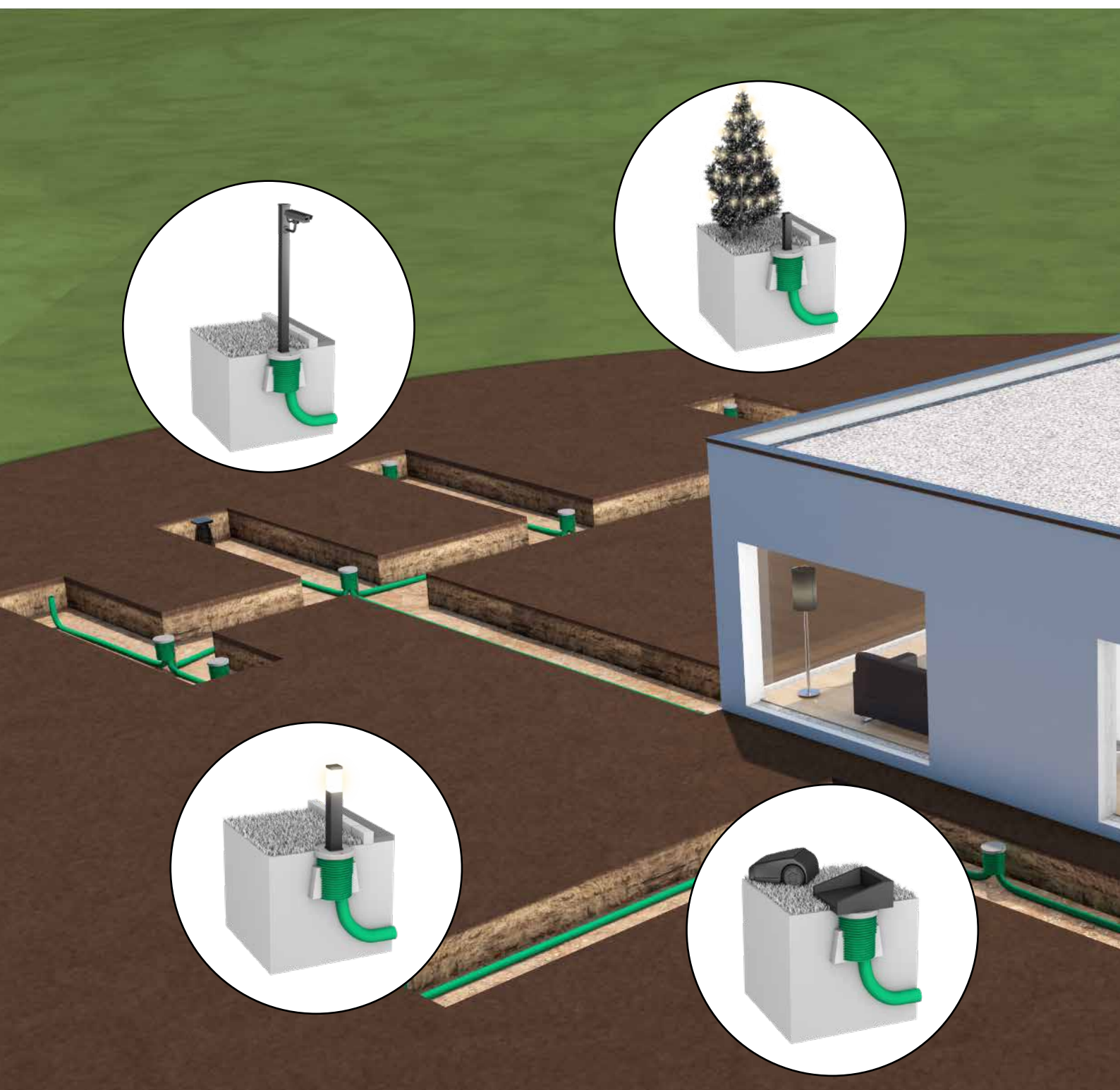
# 07 Building services outlets

For the planning and distribution of electricity and telecommunications in the garden of the building, our ETGAR builder's packages offer the optimal foundation.

ETGAR is installed in the technical room, near the electrical (main) or sub-distribution, and is already poured into the concrete with when creating the floor slab of the building.

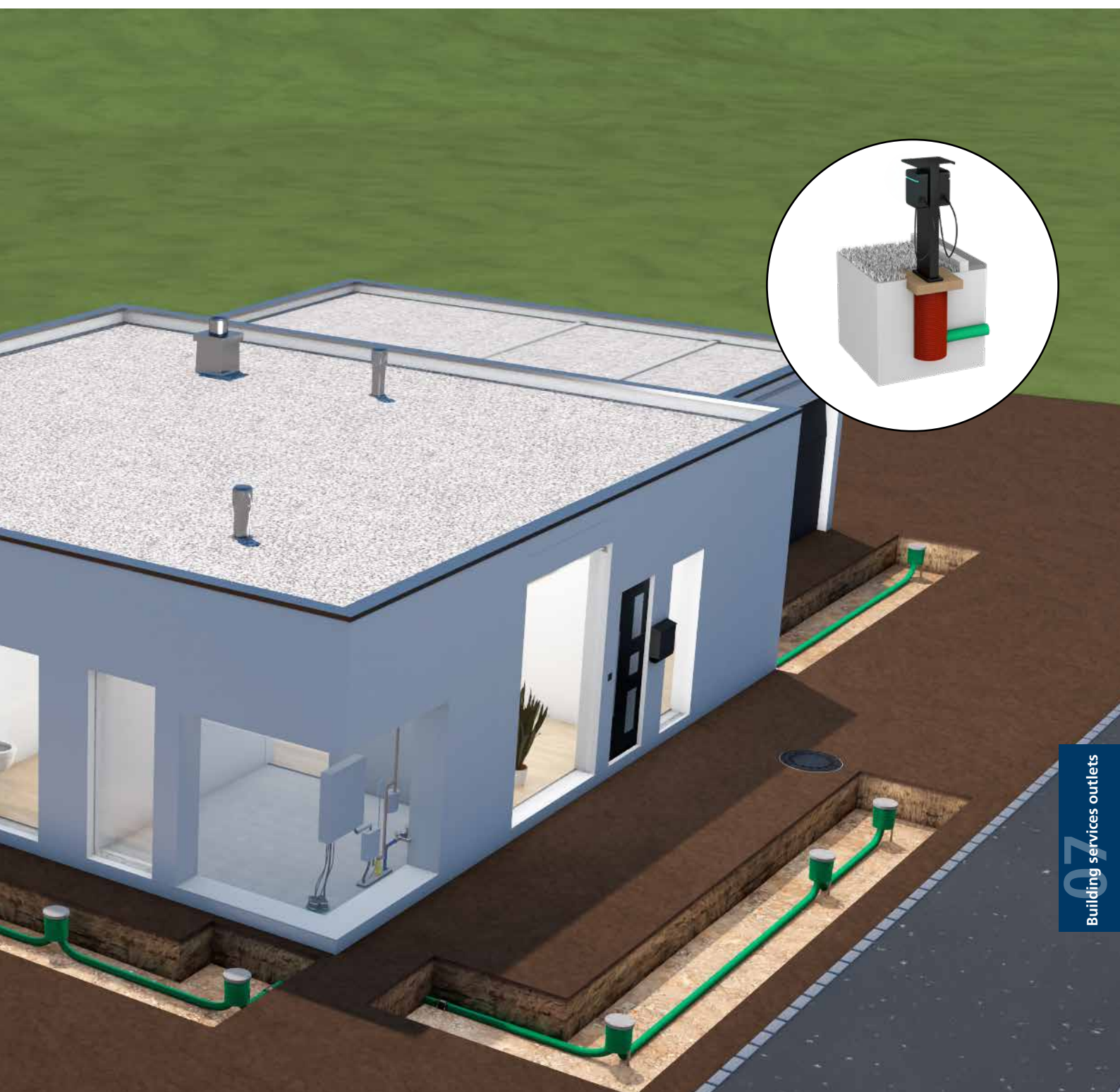
Flexible empty pipes lead from this house design under the floor slab in all directions of the future garden plot.

Thereby the ETGAR building owner package covers naturally all important technical requirements such as the dampness and radon protection of buildings. From this point on, one is completely flexible as to how to proceed with the garden planning.



The ETGAR extension and extension sets are the extension sets for the ETGAR builder's package. Once the house is completed, at some point it is time to move on to the exterior landscaping of the property.

Now you can simply extend the access points already set during the construction phase and guide them to the desired location, branch off again, or simply leave them blind closed to be able to use the access at some later date.



# ETGAR building package for building services outlets

for buildings without a basement



## HAB ETGAR BHP

For routing and distributing electric power and communication lines from the building to the property's surrounding grounds.

### USP

- complete system for distributing the power to the entire property

### Scope of delivery

- 1 piece of basic unit for setting in concrete with 4 outlets and a blind cover
- 1 piece of height-adjustable installation fixture
- 1 roll of 30 m corrugated pipe DN 75 incl. pulling aid
- 4 pieces of Interlocking sleeves for corrugated pipe, pre-assembled

- 8 pieces of profile sealing rings for connection of corrugated pipes
- 4 pieces of sealing caps for corrugated pipe
- 1 piece of seal insert, gas- and watertight
- 2 pieces sealing element HAB ETGAR DB 1x24-40+3x7-13 with pipe section
- 2 pieces sealing element HAB ETGAR DB 1x13-21+3x7-13+1x5-13 with pipe section
- 1 piece of GMT lubricant

### Tightness

- gastight and watertight

Article code	Article number	GTIN
<b>HAB ETGAR BHP</b>	3030404422	4052487231626



HAB ETGAR BHP - Electricity distribution throughout the property



Built-in house design ETGAR builder package

# Building services outlets ETGAR MIS

for buildings without a basement



## HA ETGAR MIS100S

For routing and distributing electric power and communication lines from the building to the surrounding property.

### USP

- flexible building services outlet for distribution of cables or pipes on the property, for retrofit installation
- provision for electrical applications such as lights, sockets and charging points

### Scope of delivery

- 1 piece of HA ETGAR MIS100S
- 1 piece of 2-component resin Resinator, 300 ml

- 1 piece of sleeve cap MS75K 1x13-21+3x7-13+1x5-13
- 1 piece of ETGAR connection sleeves
- 1 double sleeve DN 75 + 4 profile seals DN 75

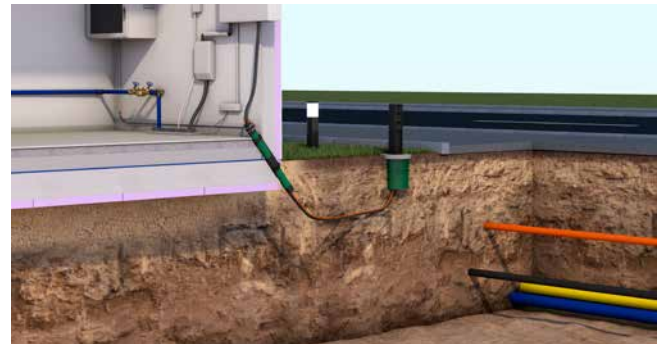
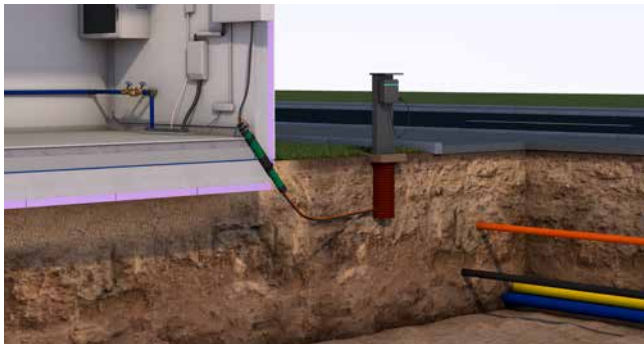
### Dimensions

- For core drills ID: 99 - 102 mm
- Overall length: 1.150 mm
- Minimum wall thickness: 200 mm

### Tightness

- gastight and watertight to 0.5 bar

Article code	Article number	GTIN
<b>HA ETGAR MIS100S</b>	3030576095	4052487247238



### Accessories

Figure	Item	Article code	Article number	GTIN
	Cartridge gun for resin injection	<b>MIS MW</b>	5060050021	4052487236454

# ETGAR building package for multi-line building service outlets

for buildings with a basement



## HAW-M ETGAR BHP

For routing and distributing electric power and communication lines from the building to the property's surrounding grounds.

### USP

- complete system for distributing the power to the entire property
- integrated test valve

### Scope of delivery

- Basic component for installation in ETGAR wall sleeve
- Insulating plate for integrating the building insulation in the area of the building services outlet
- 2 pieces of ETGAR sealing elements 1x13-21+3x7-13+1x5-13

- 2 pieces of ETGAR sealing elements 1x26-30+3x5-8+2x7-13
- 16-piece corrugated pipe connection set (4 double sleeves DN75 + 12 profile seals DN75) RAS16
- 1 piece of GMT lubricant

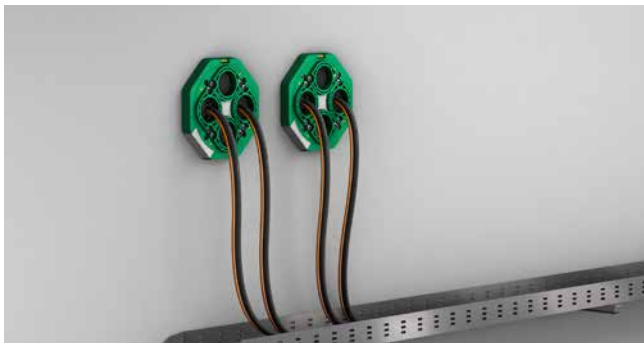
### Dimensions

- Compatible with ETGAR wall sleeve, ID: 200 mm
- maximum wall thickness: 500 mm

### Tightness

- gastight and watertight to 1.0 bar

Article code	Article number	GTIN
<b>HAW-M ETGAR BHP</b>	3030458211	4052487239936



### Accessories

Figure	Item	Article code	Article number	GTIN
	ETGAR wall sleeve for building services outlet for ETGAR BHP	<b>HAW-M ETGAR FR</b>	3030458206	4052487239912
	Multiple building services outlet ETGAR external sealing element for multiple house design ETGAR builder-owner package	<b>HAW-M ETGAR AD</b>	3030490272	4052487241939

# ETGAR building package for single building service outlets

for buildings with a basement



## HAW-E ETGAR BHP

For routing and distributing electric power and communication lines from the building to the property's surrounding grounds. For installation in a universal MSH Basic-FUBO-E wall sleeve.

### USP

- complete system for distributing the power to the entire property

### Scope of delivery

- Basic component for installation in universal wall sleeve UFR100/x
- Outer sealing element for installation in wall sleeve.
- Insulating plate for integrating the building insulation in the area of the building services outlet

- 1 piece of ETGAR sealing element 1x26-30+3x5-8+2x7-13
- 4-piece corrugated pipe connection set (1 double sleeve DN 75 + 3 profile seals DN 75) RAS4
- 1 piece of GMT lubricant

### Dimensions

- Compatible with UFR wall sleeve, ID: 100 mm
- maximum wall thickness: 500 mm

### Tightness

- gastight and watertight to 1.0 bar

Article code	Article number	GTIN
<b>HAW-E ETGAR BHP</b>	3030458216	4052487239967

### Accessories

Figure	Item	Article code	Article number	GTIN
	Universal wall sleeve for any type of wall	<b>UFR100/200</b>	3030300244	4052487216098
	ETGAR exterior sealing element for single-line building service outlet for ETGAR building package for single-line building service outlet	<b>HAW-E ETGAR AD</b>	3030491405	4052487242028

# ETGAR extension set

for ETGAR BHP

## HAB ETGAR VLS

Suitable for extending the duct system of the ETGAR building package for building services outlets.



### Scope of delivery

- 30-m corrugated pipe DN 75 green
- 4 pieces of extension sleeves
- 2 pieces of sleeve caps MS75EW 1x24-40+3x7-12

- 2 pieces of sleeve caps MS75K 1x13-21+3x7-13+1x5-13

### Tightness

- gastight and watertight

Article code	Article number	GTIN
HAB ETGAR VLS	3030404455	4052487231657

# ETGAR foundation box set

for ETGAR BHP

## ETGAR FB SET

For routing and distributing electric power and communication lines in the garden, for the safe installation of garden lights, energy charging stations etc. and the connection of ETGAR building services outlet duct systems.



### USP

- ready-to-connect foundation system for installation of electrical terminal devices

### Scope of delivery

- 1 piece ETGAR foundation boxes
- 1 ETGAR carrier plate contains four attachment screws
- 2 pieces of ETGAR connection sleeves

Article code	Packing unit	Article number	GTIN
ETGAR FB SET	1	3030482075	4052487242202
	4		4052487241908

# ETGAR foundation box

for ETGAR BHP

## ETGAR FB

For routing and distributing electric power and communication lines in the garden, for the safe installation of garden lights, energy charging stations etc. and the connection of ETGAR building services outlet duct systems. Accessory for the ETGAR building services outlet and for the extension set.



### USP

- ready-to-connect foundation system for installation of electrical terminal devices

### Scope of delivery

- 1 piece of ETGAR foundation box main unit, incl. closing covers, top and bottom
- 1 piece of height-adjustable installation fixture
- 1 piece of ETGAR connection sleeves
- 1 packing unit: 32 items

Article code	Packing unit	Article number	GTIN
<b>ETGAR FB</b>	1	3030454134	4052487239851
	32		4052487239868



ETGAR foundation box for mounting electrical applications

# ETGAR carrier plate

for ETGAR foundation box



## ETGAR FB TPL

For mounting on the ETGAR foundation box and for versatile, safe and reliable installation of outdoor garden lighting, multi-socket power-outlet strips, and electric power charging stations, etc.

### USP

- ready-to-connect foundation system for installation of electrical terminal devices

### Dimensions

- Diameter: 270 mm
- Height: 50 / 30 mm
- Diameter of predetermined breaking point: 40 mm

### Scope of delivery

- 1 ETGAR carrier plate contains four attachment screws<sup>2</sup>

Article code	Packing unit	Article number	GTIN
ETGAR FB TPL	1	3030454138	4052487239875
	32		4052487239882

# ETGAR connection sleeve

for ETGAR foundation box



## ETGAR ANS 4x5-25

For ETGAR building services outlets and for sealing cables/pipes at the end of the duct OD 75 mm.

### USP

- with segments for maximized application range

### Dimensions

- Area of application: 4 cables/pipes OD 5 - 25 mm

### Scope of delivery

- 1 packing unit: 12 pieces of sleeve caps

Article code	Packing unit	Article number	GTIN
ETGAR ANS 4x5-25	1	3030449206	4052487239899
	10		4052487239905

**Accessories**

Figure	Item	Article code	Article number	GTIN
	Extension sleeve for ETGAR building services outlet	<b>ETGAR MA70-84/70-84</b>	3030403633	4052487232302
	Sleeve caps blind sealing for power and communication	<b>ETGAR MS75 K 1x13-21+3x7-13+1x5-13</b>	5060150705	4052487232319
	Sleeve caps for electricity and communication	<b>ETGAR MS75 EW 1x24-40+3x7-12</b>	3030403632	4052487232296
	PE corrugated duct for ETGAR BHP	<b>HAB ETGAR WR75 GR30000</b>	3030401995	4052487231374
	ETGAR insert for building services outlet for buildings without a basement	<b>HAB ETGAR EBT</b>	3030404403	4052487231817
	Seal insert for ETGAR building services outlet	<b>HAB ETGAR ENS</b>	3030401104	4052487231824
	Sealing element for ETGAR building services outlet	<b>HAB ETGAR DB 1x13-21+3x7-13+1x5-13</b>	3030401107	4052487231831
		<b>HAB ETGAR DB 1x24-40+3x7-13</b>	3030403850	4052487231848
	ETGAR accessory set for building services outlet for ETGAR BHP	<b>HAB ETGAR ZBS</b>	3030403681	4052487231855
	Corrugated pipe for ETGAR extension set	<b>WR32 GU25000</b>	3030368195	4052487232081

# 08 Infrastructure

The network infrastructure forms the elementary basis for the entire basic supply.

Whether electricity, water, gas or telecommunications – only with a well-developed network infrastructure can the various services get to where they are needed.

## EV Charging

As a manufacturer of building entries, Hauff-Technik ensures that wherever cables are routed through buildings, the building shell is reliably sealed again and the cables are routed safely into the building.

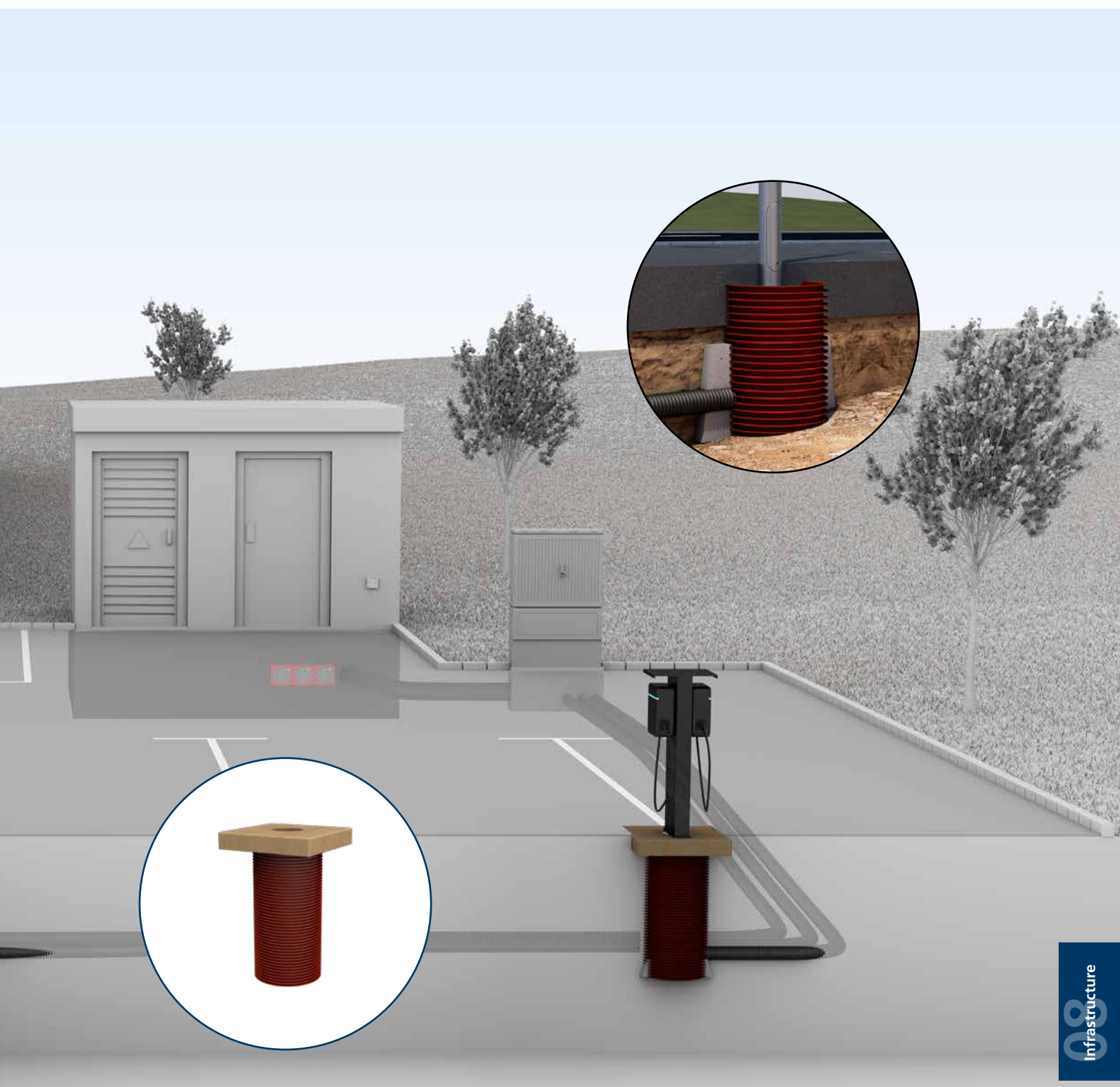
In addition to building entries, Hauff-Technik offers innovative solutions for underground power distribution in outdoor areas, as well as various foundation systems for e-charging stations, streetlamps and other applications.



## Street Lighting

HFR foundation pipes from Hauff-Technik enable groundwork and mast installation to be carried out independently of one another. The foundation pipe with cable entry is installed during the groundwork, while the lighting mast can be brought in at a later point, enabling potential damage during construction work to be effectively avoided. Lighting masts can even be replaced easily and without the need for groundwork.

Hauff-Technik foundation pipes are characterised by high mechanical stability which is achieved through a ribbed plastic design, low weight and consequential easy handling on site.



# Universal charging station foundation

for the installation of charging stations and charging pedestals



## ULF

Universal foundation solution for installing charging stations and charging pedestals. Option for mounting on polymer concrete slab. Connection of power and data cables using a duct connection.

### USP

- universal foundation system for various EV charging stations and columns
- adaptation option for ducts
- replacement or exchange of the EV charging station possible without removing the foundation

### Scope of delivery

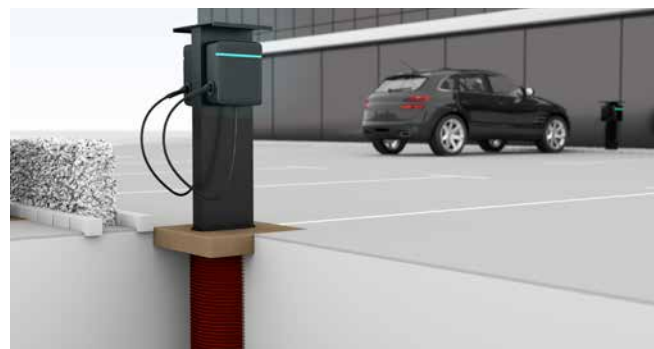
- 1 piece of ULF with blind plate

### Dimensions





- Total length: 755 mm
- Foundation slab:
  - ULF300: 300 x 300 mm,
  - ULF380: 380 x 380 mm,
  - ULF470: 470 x 470 mm
- Height foundation slab: 80 mm
- Foundation slab opening:
  - ULF300/380: 110 mm,
  - ULF470: 110/150 mm
- Foundation pipe (Øi):
  - ULF300: DN 200, ULF380: DN 250,
  - ULF470: DN 300

Type	Size (mm)	Foundation pipe Øi (mm)	Article code	Article number	GTIN
ULF300	300 x 300	200	<b>ULF300 1x110</b>	3030512350	4052487243452
ULF380	380 x 380	250	<b>ULF380 1x110</b>	3030490218	4052487242851
ULF470	470 x 470	300	<b>ULF470 1x110</b>	3030540367	4052487245111
	470 x 470	300	<b>ULF470 1x150</b>	3030490219	4052487242875

The universal charging station base is compatible with charging stations and wallbox steels from different manufacturers. Find the solution that suits you on our website: [www.hauff-technik.uk](http://www.hauff-technik.uk)



## Accessories

Figure	Item	Article code	Article number	GTIN
	Hole saw for the universal charging station foundation	<b>LS 76 SET</b>	3030505139	4052487245418
		<b>LS 114 SET</b>	3030505140	4052487245425
	Concrete screw for the universal charging station foundation	<b>BTS 6x60 A2K SW13</b>	3030515187	4052487245456
		<b>BTS 6x60 A4 SW13</b>	3030504407	4052487245449
	ULF Closing cover for permanently closing the opening in the foundation plate of the universal charging station foundation	<b>ULF VD110</b>	3030563712	4052487248235
		<b>ULF VD150</b>	3030563708	4052487248242
	ETGAR connection sleeve for ETGAR foundation box	<b>ETGAR ANS 4x5-25</b>	3030449206	4052487239899

# Foundation pipe

for street lighting poles



## HFR

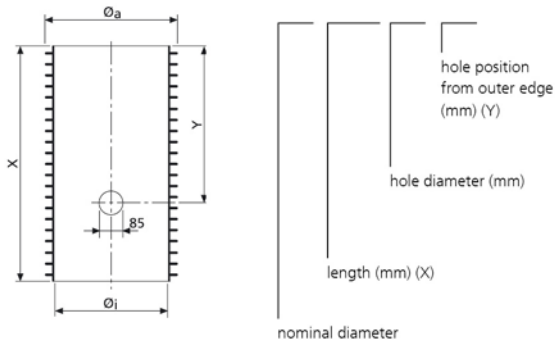
Ideal for street lighting poles and a cost-effective alternative to conventional formwork.

### USP

- the length of the foundation pipe and the position of the drill hole/cable entry can be freely selected

Foundation pipe Øi (mm)	Foundation pipe Øa (mm)	Pipe length (mm)	Article code	Article number	GTIN
290	335	600	<b>HFR300 I600 1x85/400</b>	915000100	4052487023658
		800	<b>HFR300 I800 1x85/600</b>	915000200	4052487023672
		1000	<b>HFR300 I1000 1x85/600</b>	915000250	4052487023702
		1200	<b>HFR300 I1200 1x85/600</b>	915000300	4052487023740
390	450	800	<b>HFR400 I800 1x85/600</b>	916000200	4052487023870
		1000	<b>HFR400 I1000 1x85/600</b>	916000250	4052487023894
		1200	<b>HFR400 I1200 1x85/600</b>	916000300	4052487023931
		1400	<b>HFR400 I1400 1x85/600</b>	916000400	4052487023962
490	560	800	<b>HFR500 I800 1x85/600</b>	918000200	4052487024068
		1000	<b>HFR500 I1000 1x85/600</b>	918000250	4052487024082
		1200	<b>HFR500 I1200 1x85/600</b>	918000300	4052487024105
		1400	<b>HFR500 I1400 1x85/600</b>	918000400	4052487024129
		1600	<b>HFR500 I1600 1x85/600</b>	918000500	4052487024150

Article code, e.g.:  
**HFR300 I1200 1x85/750**




Technical details



Built-in graphics - HFR

**Accessories**

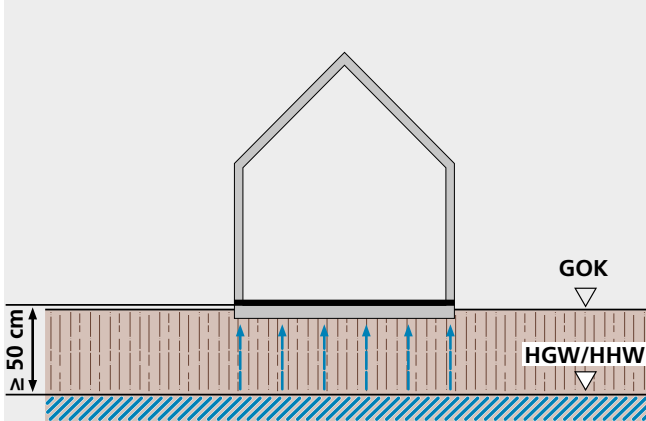
Figure	Item	Article code	Article number	GTIN
	PE cover for foundation pipe	<b>HFR300 VD</b>	5190020013	4052487233361
		<b>HFR400 VD</b>	5190113980	4052487233354
		<b>HFR500 VD</b>	5199990020	4052487233521

# Water exposure classes

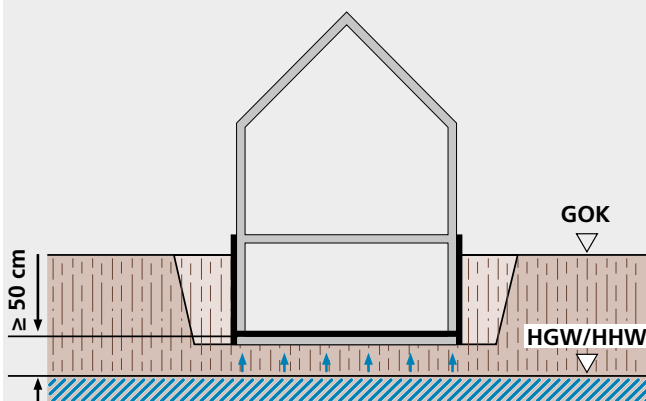


## Water exposure class W1.1-E

- **W1.1-E soil moisture**
- very water-permeable soil/  
fill material very water-permeable

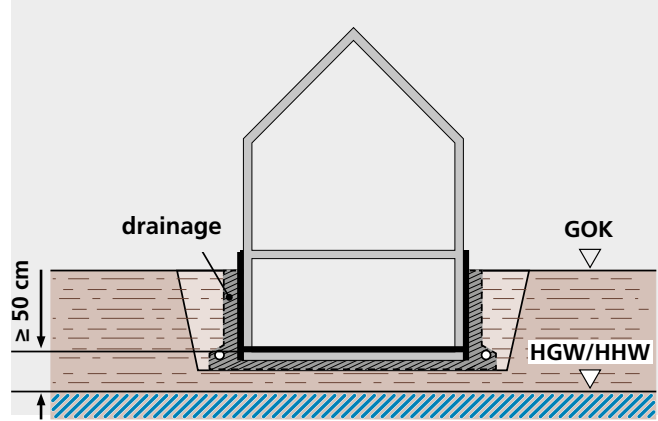


- **W1.1-E soil moisture, non-pressing water**
- very water-permeable soil/  
fill material very water-permeable



## Water exposure class W1.2-E

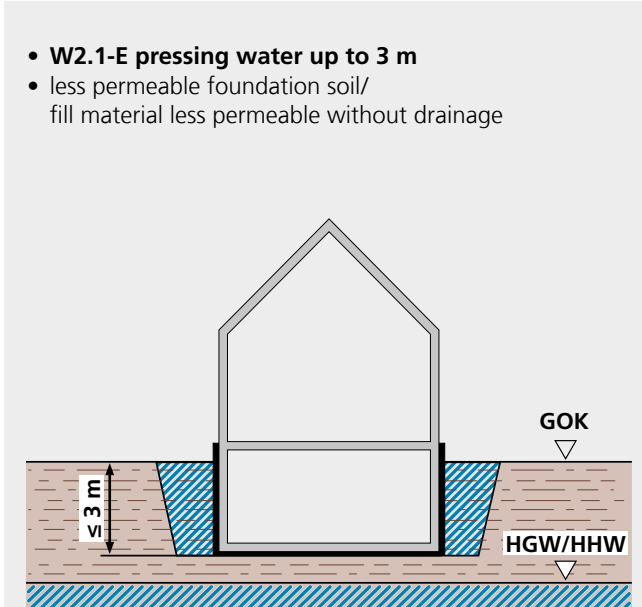
- **W1.2-E seepage**
- less permeable foundation soil/fill material less permeable  $k \leq 10^{-4}$  m/s with drainage





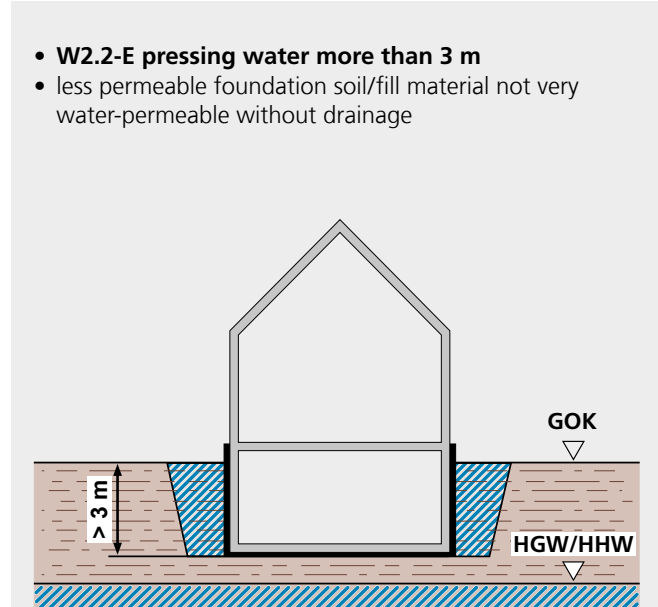
**Water exposure class W2.1-E, immersion depth  $\leq 3$  m**

- W2.1-E pressing water up to 3 m
- less permeable foundation soil/ fill material less permeable without drainage

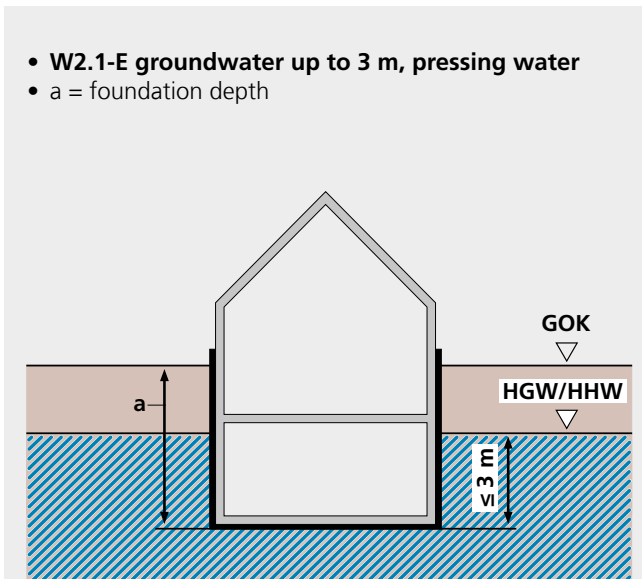


**Water exposure class W2.2-E, immersion depth  $> 3$  m**

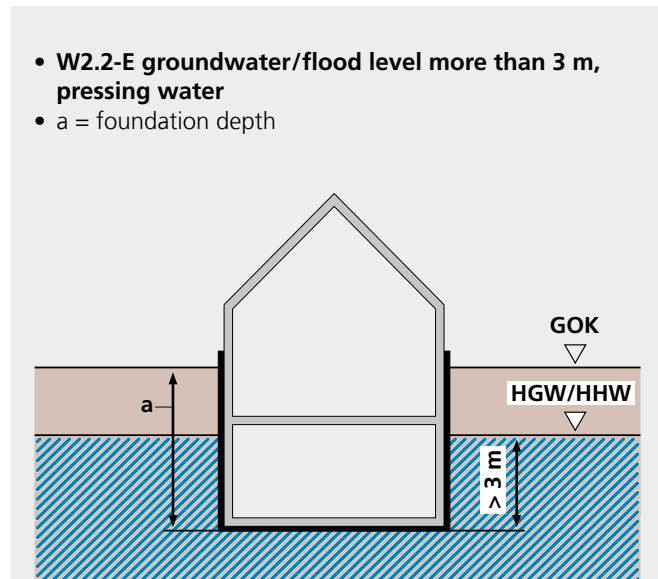
- W2.2-E pressing water more than 3 m
- less permeable foundation soil/ fill material not very water-permeable without drainage



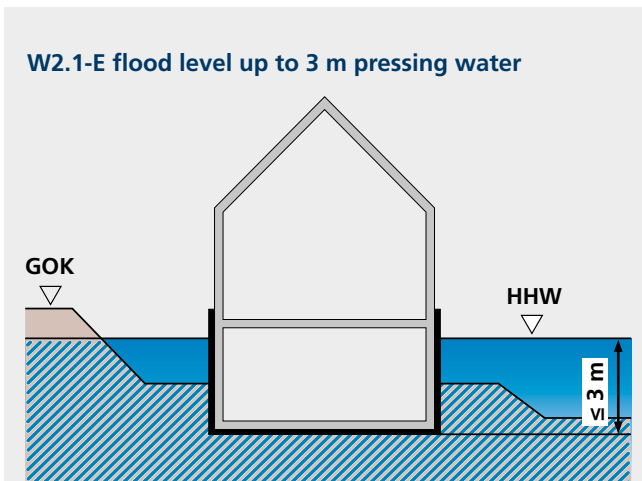
- W2.1-E groundwater up to 3 m, pressing water
- a = foundation depth



- W2.2-E groundwater/flood level more than 3 m, pressing water
- a = foundation depth

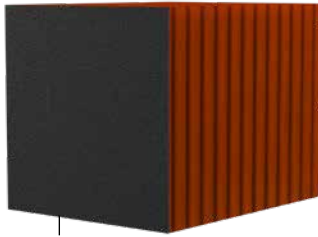
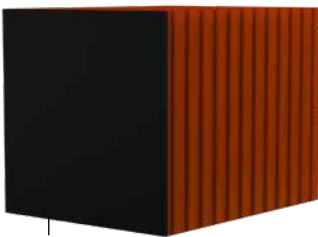
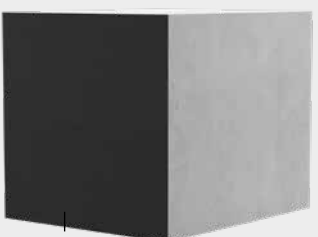
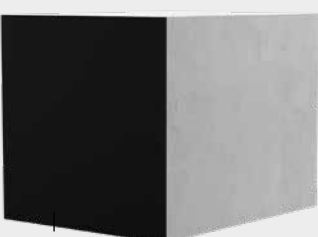


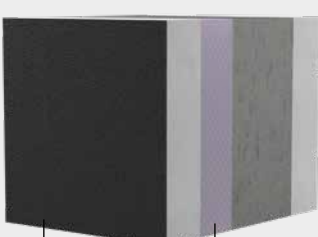
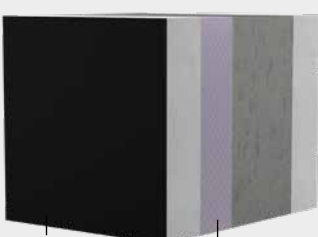


**W2.1-E flood level up to 3 m pressing water**



GOK: ground surface  
 HGW: highest measured groundwater level  
 HHW: highest measured flood level

# Surface sealing according to DIN 18533 Part 1

Basement wall type/ Wall structure	Sealing according to DIN 18533 – W2.1-E, Part 3, moderate exposure to pressing water, standing water 3 m	Sealing according to DIN 18533 – W2.2-E, Part 2, high exposure to pressing water, standing water > 3 m
Brick-built basement wall	<p style="text-align: center;">gemauerter Keller</p>  <p>No. 1 Außenabdichtung PMBC</p>	<p style="text-align: center;">gemauerter Keller</p>  <p>No. 5 Außenabdichtung bahnenförmig</p>
Concreted basement	<p style="text-align: center;">betonierter Keller</p>  <p>No. 2 Außenabdichtung PMBC</p>	<p style="text-align: center;">betonierter Keller</p>  <p>No. 6 Außenabdichtung bahnenförmig</p>
Double wall/Element wall	<p style="text-align: center;">Doppel-/Elementwand</p>  <p>No. 3 Außenabdichtung PMBC</p>	<p style="text-align: center;">Doppel-/Elementwand</p>  <p>No. 7 Außenabdichtung bahnenförmig</p>
Double wall/Element wall with thermal insulation	<p style="text-align: center;">Doppel-/Elementwand</p>  <p>No. 4 Außenabdichtung PMBC      Wärmedämmung</p>	<p style="text-align: center;">Doppel-/Elementwand</p>  <p>No. 8 Außenabdichtung bahnenförmig      Wärmedämmung</p>

## Stress classes

Stress class 1	Stress class 2
<p>pressing water</p> <ul style="list-style-type: none"> <li>groundwater, stratum water, flood water or other water that exerts hydrostatic pressure (temporarily or permanently)</li> </ul>	<p>non-standing seepage water</p> <ul style="list-style-type: none"> <li>water that can seep through highly permeable soils (<math>k_f \geq 10^{-4}</math> m/s) without accumulating</li> <li>water which is drained away in permeable soils by permanently functioning drainage in accordance with DIN 4095</li> </ul>
<p>non-pressing water</p> <ul style="list-style-type: none"> <li>water in liquid, dripping form with hydrostatic pressure (head of water <math>\leq 10</math> cm)</li> </ul>	<p>oil moisture</p> <ul style="list-style-type: none"> <li>capillary-bound water in the soil</li> </ul>
<p>occasionally standing seepage water</p> <ul style="list-style-type: none"> <li>water that can accumulate on low-permeability soil strata without drainage. Foundation level of the building lies at least 30 cm above the water level assumed for design purposes</li> </ul>	

## Waterproof concrete according to DIN 1045

Basement wall type/ Wall structure	Without thermal insulation	With thermal insulation
<p>Concreted basement with waterproof concrete</p>	<p>No. 9</p> <p>betonierter Keller</p>	<p>No. 10</p> <p>betonierter Keller Wärmedämmung</p>
	<p>No. 11</p> <p>Doppel-/Elementwand</p>	<p>No. 12</p> <p>Doppel-/Elementwand Wärmedämmung</p>

If you do not find your wall structure among above examples, kindly let us have a sketch.

**Pre-applied fully-bonded membranes (FBM systems) as in addition measure for waterproof concrete building seals:**  
 FBM systems are not covered by DIN 18533 or the waterproof concrete guideline and must be designed and applied as a stand-alone construction type. Tested FBM connections on request.

# General Terms and Conditions of Sale and Delivery

## I. Scope of Application

1. The following Terms and Conditions of Sale and Delivery shall apply to all contracts concluded between the buyer and us concerning the sale and delivery of goods. They shall also apply to all future business relationships, even if they are not expressly agreed on once again. Deviating terms and conditions of the buyer which are not expressly recognised by us shall not be binding on us, even if we do not expressly object to them. Our Terms and Conditions of Sale and Delivery shall apply even if we carry out the buyer's order unconditionally in the knowledge of contrary or deviating terms and conditions of the buyer.

1.2 The Terms and Conditions of Sale and Delivery shall only apply to entrepreneurs in the sense of Section 14 of the German Civil Code (BGB), legal persons under public law and special funds under public law; it shall not apply to consumers (Section 13 of the BGB).

1.3 Individual agreements made with the buyer in individual cases shall always take precedence over these Terms and Conditions of Sale and Delivery. A written contract or written confirmation on our part is required for the content of such agreements.

1.4 Legally relevant declarations and notifications that are to be submitted to us by the buyer after conclusion of the contract (e.g. notifications of defects, declaration of withdrawal or reduction as well as setting of deadlines) shall be in text form in accordance with Section 126 b of the BGB to be effective. This also applies to the waiver of this text form clause.

1.5 References to the validity of statutory regulations are for the purposes of clarification only. The statutory regulations shall therefore also apply without such clarification, unless they are directly modified or expressly excluded in these Terms and Conditions of Sale and Delivery.

## II. Conclusion of Contract

2.1 We may accept any order from the buyer which can be qualified as an offer to conclude a purchase contract by sending an order confirmation within two weeks or by shipping the ordered products within the same period.

2.2 For the purpose of performing a credit check on the buyer, and provided that we have demonstrated a legitimate interest, we shall be entitled to retrieve any address and financial data relating to the buyer that has been stored, including such data that can be determined on the basis of mathematical and statistical methods, via the companies Bürgel Wirtschaftsinformationen GmbH & Co. KG, Postfach 500166, 22701 Hamburg, Germany; Creditreform, Stuttgarter Str. 35, 73430 Aalen, Germany; and Bisnode D&B Deutschland GmbH, Robert-Bosch-Str. 11, 64293 Darmstadt, Germany. To enable decisions concerning the establishment, execution or termination of the contractual relationship, we shall collect or use probability figures calculated using information including address data.

2.3 Our offers shall be non-binding and subject to change, unless we have expressly designated them as binding. This shall also apply if we have provided the buyer with catalogues, technical documentation - drawings, plans, calculations, references to DIN standards, other product descriptions or documents - including in electronic form.

2.4 Acceptance by us can be declared either in text form in accordance with Section 126 b of the BGB (e.g. by order confirmation) or by delivery of the goods to the buyer.

2.5 To the best of our knowledge and experience, we are willing to provide any advice requested by the buyer, that the buyer may require in addition to product descriptions and installation instructions, but without obligation to do so. All details and information as well as applications of any kind shall not exempt the buyer from carrying out his/her own tests to determine the suitability of the products for the intended processes and purposes. Details and information provided by us are non-binding and shall not justify a separate contractual relationship or ancillary obligations from the concluded sale and delivery contract, unless otherwise expressly agreed in writing (text form in accordance with Section 126 b of the BGB is sufficient).

## III. Terms and Conditions of Payment - Prices

3.1 Unless otherwise agreed in individual cases, our current prices at the time the contract is concluded apply on an ex-works basis (EXW in accordance with Incoterms 2020) ex-warehouse. Our prices do not include the statutory value added tax. We shall disclose the amount of value added tax applicable on the invoice date separately in our invoice. Unless a fixed price agreement has been made, we reserve the right to make reasonable price adjustments due to changes in wage, raw material, material and distribution costs for deliveries made three months or later after conclusion of the contract.

3.2 In the case of sale by dispatch, the buyer shall bear the transport costs ex-warehouse and the costs of any transport insurance requested by the buyer. Any customs duties, fees, taxes or other public charges shall be borne by the buyer. Should the shipment be made using reusable pallets, these shall only be loaned to the buyer; the buyer shall undertake to properly return or replace such pallets.

3.3 The purchase price shall be due and payable without deductions within 10 days of invoicing and delivery of the goods. Cash discounts are not permitted unless otherwise agreed in writing between us and the buyer. A payment shall not be deemed to have been made until we have the amount at our disposal.

3.4 Upon expiry of the above payment period, the buyer shall be in default without the need for a separate reminder. The purchase price shall bear interest at the applicable statutory rate during the period of default. We reserve the right to assert further compensation claims caused by delay.

3.5 The buyer shall only be entitled to set-off, even if complaints or counterclaims are being made, if the counter-claims have been determined in a final and legally binding manner, have been acknowledged by us or are undisputed. The buyer shall only be entitled to exercise a right of retention if his/her counter-claim is based on the same contractual relationship. We shall be entitled to exercise a right of retention on all receivables arising from the business relationship with the buyer.

3.6 Should our claim to the purchase price be jeopardized by the buyer's inability to pay after conclusion of the contract, we are entitled to refuse performance and, with a deadline set if necessary, to withdraw from the contract (Section 321 of the BGB).

## IV. Delivery, Performance Time and Delivery Delays

4.1 Delivery dates or periods which have not expressly been agreed as binding are exclusively non-binding information. Unless otherwise agreed, delivery is made on an ex-works basis (EXW in accordance with Incoterms 2020) from the Hermaringen warehouse, which is also the place of performance. The delivery time quoted by us shall only commence when the technical issues have been clarified. Similarly, the buyer is obliged to fulfil all of the obligations to which he is subject, both properly and in a timely manner. We reserve the right to the defence of lack of performance of the contract.

4.2 In the event that a delivery delay for which we are responsible – and where a fault on the part of our representatives or vicarious agents is to be ascribed to us – is due to a grossly negligent or intentional breach of contract on our part or a slight breach of a fundamental contractual obligation on our part, we shall be liable in accordance with the statutory provisions, with the proviso that in such cases our compensation liability is limited to the foreseeable, typically occurring damage or loss.

4.3 A delivery delay for which we are responsible, which shall be based solely on the culpable breach of a non-fundamental contractual obligation, shall limit the buyer's compensation claim to 25% of the value.

4.4 Should we be completely or partially prevented from fulfilling our obligations due to a force majeure event, we shall be released from fulfilling our contractual obligations until cessation of the force majeure event. We shall however immediately inform the buyer thereof insofar as he/she is not also prevented from fulfilling the contract by a force majeure event. The impossibility of an adequate supply of utilities such as electricity, heating, etc., as well as strikes and lockouts, the outbreak of an epidemic or pandemic, as well as terrorist attacks, earthquakes and/or drought – unless they are of short duration or by our fault – shall be equated to a force majeure event. In the case of a force majeure event, we shall be entitled to postpone our delivery time. In this respect, the buyer shall not be entitled to withdraw from the contract or to claim damages; our liability shall be excluded. Should delivery not be possible within a reasonable period of time or if the buyer can credibly demonstrate that a later delivery is not reasonable for him/her, he/she shall have the right to withdraw from the contract. Any claims of the buyer over and above this, in particular compensation claims, are excluded.

## V. Acceptance

5.1 The buyer shall undertake to carry out all actions required for acceptance of our delivery. In the event of a culpable breach of this obligation by the buyer, he/she shall be liable to us for any additional expenses. In such cases, we also reserve the right to assert further compensation claims.

5.2 Should the buyer's acceptance of the delivery be delayed by more than 14 days, we shall grant, in writing, a grace period of 14 days for the acceptance; at the same time, we shall issue a notification that acceptance will be rejected if this defined period expires without the action having been carried out. Should the buyer allow the defined grace period to elapse without the action having been carried out, we shall be entitled to withdraw from the purchase contract by means of a written declaration, or to demand compensation for non-performance. Should the buyer continue to refuse acceptance, or if he/she is clearly unable to pay the purchase price even if a grace period is granted, there shall be no requirement to grant a grace period.

5.3 In such cases, we shall be entitled to claim our loss of profits amounting to 10 % of the agreed purchase price, unless the buyer proves that we incurred a lower loss. Irrespective of this, we shall be entitled to prove and claim higher damages.

## VI. Warranty

6.1 The buyer's claims due to defects only exist if the buyer has duly complied with his/her inspection and complaint obligations in accordance with Section 377 of the German Commercial Code (HGB). If the buyer makes changes to our products, fails to follow our operation, installation and maintenance specifications or safety instructions, or does not follow them sufficiently, or uses parts or consumables that have not been approved by us, our warranty obligation shall no longer apply, unless the buyer can prove that the defect concerned is not the result of one of these circumstances. Otherwise, our installation instructions and warranty conditions shall apply.

6.2 If there is a defect in the goods for which we are responsible, we shall undertake to effect subsequent performance – excluding the rights of the buyer to withdraw from the contract or to reduce the purchase price (reduction) – unless we are entitled to refuse to effect subsequent performance due to the statutory regulations.

6.3 The buyer must grant us a reasonable period of time for the subsequent performance. The subsequent performance may be effected either by removal of the defect (subsequent improvement) or by delivery of new goods. In the case of the removal of a defect, we shall bear the necessary costs provided that these do not increase because the goods of the contract are at a location other than the place of performance. We shall not accept claims for reimbursement of expenses if our defective product is combined with another item in such a way that a new functional purpose is created. At our reasonable discretion, we shall be entitled to determine the type of subsequent performance. Any subsequent performance by us shall take place without recognition of a legal obligation, unless the defect has been recognised by us. If the subsequent performance fails, the buyer may, at his/her discretion, demand a reduction in the purchase price (reduction) or declare his/her withdrawal from the contract. The subsequent improvement shall be deemed to have failed after the second unsuccessful attempt, unless further attempts to achieve an improvement are appropriate and reasonable for the buyer in view of the nature of the contractual item.

# General Terms and Conditions of Sale and Delivery

6.4 Compensation claims according to statutory provisions due to a defect may only be asserted by the buyer if the supplementary performance fails. The buyer shall not be entitled to demand compensation claims or a reduction in the purchase price in the case of insignificant defects.

6.5 The claims of the buyer due to defects in the purchased item shall lapse 5 years after delivery of the goods to the buyer if they were used for construction work in accordance with their normal method of utilisation and this has caused their defectiveness. This shall also apply to claims of the buyer for compensation or compensation instead of service, and due to all other damage to the buyer's rights arising from the defect; it shall not, however, apply to damage to the life, limb or health of the buyer, or to cases in which we are responsible for the defect as a result of wilful intent or gross negligence, including on the part of our vicarious agents.

6.6 Claims due to defects shall not exist in the case of natural wear and/or damage occurring after the transfer of risk as a result of faulty and/or negligent handling of unsuitable equipment and/or inadequate water quality or incorrect installation. Moreover, claims for defects shall not exist in the case of chemical and/or electrochemical influences on our products, unless we are responsible for them. Our warranty and/or liability shall particularly be void if accessories that have not been approved by us are installed with our products. The contrary shall only apply if the warranty case and/or liability is demonstrably not due to one of the aforementioned reasons for exclusion.

## VII. Liability

7.1 Unless otherwise stated in these Terms and Conditions of Sale and Delivery, including the following provisions, or in a separate written agreement between us and the buyer, we shall be liable – for whatever legal reason – in the event of a violation according to the applicable statutory regulations.

7.2 Insofar as we intentionally or through gross negligence violate a contractual obligation or an essential contractual obligation through simple negligence, our obligation to pay compensation shall be restricted to foreseeable damage that is typical for the contract. Essential contractual obligations are such obligations whose fulfilment is essential for the proper execution of the contract and on whose observance the buyer can regularly rely. In all cases of other slightly negligent breaches of obligations – except for those in Section 4.3 – our liability shall be excluded.

7.3 The regulations of the previous paragraphs shall apply to all compensation claims (and particularly to compensation in addition to service and compensation instead of service), regardless of the legal basis, particularly when arising as a result of defects, a breach of obligations from the obligatory relationship, or tortious acts. They shall also apply to claims for compensation of wasted expenditure. However, liability for delivery delays shall be determined exclusively in accordance with Section 4. of these Terms and Conditions of Sale and Delivery. Our unlimited liability as a result of intent, gross negligence, according to the regulations of the German Product Liability Act, any warranty or injury to life, limb or health shall remain unaffected by this limitation of liability.

7.4 A change in the burden of proof that is to the disadvantage of the buyer is not connected to the previous regulations.

## VIII. Retention of Title, Use of Our Intellectual Property

8.1 We hereby reserve the title, copyright and all other rights of use to all pictures, calculations, drawings and other documents. The buyer may only pass these on to third parties with our prior written consent.

8.2 The delivery item shall remain our property up to the point at which all our claims against the buyer arising from the business relationship have been satisfied.

8.3 The buyer shall be permitted to process or remodel the delivery item ("processing"). Processing shall be carried out for us. The retention of title shall extend to the products resulting from the processing, mixing or combination of our products at their full value, whereby we shall be considered to be the manufacturer. In case of processing, mixing or combining our goods with products of a third party, the title of which is retained, we shall acquire co-ownership in such processed, mixed or combined goods in proportion to the invoice values. Otherwise, the same shall apply to the resulting product as to the goods delivered under retention of title. To the extent that we acquire ownership or co-ownership, we shall keep the goods safe for the buyer with the due care and diligence of a prudent businessman.

8.4 In the event that the delivery item or the new goods are sold, the buyer hereby assigns to us by way of security his/her claims arising from the resale against his/her customer, plus all ancillary rights, without the need for any additional special declarations. We expressly accept this assignment. The assignment shall apply inclusive of any balance receivables. However, the assignment shall only apply to the amount that corresponds to the price of the delivery item invoiced by us. The share of the receivable assigned to us must be satisfied as a matter of priority.

8.5 If the buyer combines the delivery item or the new goods with property, he/she shall – without the need for any additional special declarations – also assign his/her receivables to which he/she is entitled as remuneration for the combination, at the amount that corresponds to the price of the delivery item invoiced by us. We also expressly accept this assignment.

8.6 Until further notice, the buyer shall be entitled to collect receivables assigned to us. The buyer shall immediately forward payments made towards the receivables assigned to us, up to the amount of the secured receivable. If there is a legitimate interest, and particularly in the case of default of payments, suspension of payments, opening of insolvency proceedings, protest of a bill, or substantiated evidence of over-indebtedness or impending insolvency of the buyer, we shall be authorised to withdraw the buyer's right of collection. Additionally, following prior warning and with a reasonable deadline adhered to, we may disclose the security assignment, make use of the assigned receivables, and demand disclosure of the security assignment by the buyer to his/her customers. If a justified interest is substantiated, the buyer must provide us with the information necessary to assert his/her rights in respect of his/her customers, and surrender the necessary documents.

8.7 For the duration that the retention of title is in place, the buyer shall be prohibited from pledging or assignment as security. In the event of seizure, confiscation or other official orders or acts of intervention by third parties, the buyer must notify us immediately. The resale of the delivery item or the new goods is only permitted for resellers in the ordinary course of business, and only under the condition that the proceeds from the delivery item are paid to the buyer. The buyer must also agree with the customer that the customer shall only acquire ownership once this payment is made.

8.8 If the realisable value of all security rights to which we are entitled exceeds the amount of the secured claims by more than 10%, we shall release a corresponding part of the security rights at the buyer's request. It shall be assumed that the conditions of the previous sentence have been met if the estimated value of the securities to which we are entitled reaches or exceeds 150% of the value of the secured claims. We shall be entitled to choose between the various security rights for release.

8.9 If the buyer breaches obligations – particularly in respect of default of payment – we shall be authorized, without setting a deadline, to demand surrender of the delivery item or the new goods and/or, with a deadline set if necessary, to withdraw from the contract. The buyer shall undertake to surrender possession. A demand for the surrender of the delivery item/of the new goods shall not constitute a declaration of withdrawal on our part, unless expressly stated.

## IX. Data Protection, Confidentiality

9.1 The execution of contracts concluded between us and the buyer shall take place in compliance with legal provisions such as the German Federal Data Protection Act (BDSG), the German Telecommunications-Telemedia Data Protection Act (TTDSG) and the European General Data Protection Regulation (GDPR). We give our assurance that the stored data will only be stored for internal use. Otherwise, data will only be transferred to external service providers in compliance with data protection regulations. If necessary, we will conclude separate agreements in which the external service providers undertake to comply with the applicable statutory regulations. Within the scope of our legitimate interest, we exchange creditworthiness information within INDUS Holding AG, Kölner Straße 32, 51429 Bergisch Gladbach and the companies affiliated with us there, as well as with credit agencies. In this context, we refer to the latest version of the data protection statement published on our homepage at [www.hauff-technik.de/datenschutz.html](http://www.hauff-technik.de/datenschutz.html).

9.2 Both contracting parties undertake to treat information and data from their mutual business relationship confidentially. In the event of an infringement, we reserve the right to claim damages and take action under criminal law.

9.3 The obligation of confidentiality towards the buyer does not apply to companies affiliated with us within the meaning of Section 15 of the German Stock Corporation Act (AktG) or in the event that the content of the contract/information is already known or generally accessible.

## X. Legal Venue, Choice of Law

10.1 Our registered office shall be the place of performance and jurisdiction for deliveries and payments and for all disputes arising between us and the buyer based on the contracts concluded between us and the buyer. The same shall apply to cross-border deliveries resulting from contractual relationships. We shall also be entitled, however, to sue the buyer at the court where he/she has his/her general place of jurisdiction.

10.2 The relations between the contracting parties shall be determined exclusively in accordance with the law of the Federal Republic of Germany. The application of international conventions concerning the sale of movable goods and the UN Convention on Contracts for the International Sale of Goods (CISG) are excluded.

10.3 The German version of the contents of our General Terms and Conditions of Sale and Delivery shall apply exclusively, even if there are versions in other languages.

## XI. Miscellaneous

11.1 Should individual provisions of these General Terms and Conditions of Sale and Delivery be or become wholly or partially invalid, void or unenforceable, this shall not affect the validity of the remaining General Terms and Conditions of Sale and Delivery.

11.2 The parties agree that in place of the invalid, void or unenforceable provision, a valid and enforceable provision should be created, the effect of which comes as close as possible to the economic objective that the contracting parties were pursuing with the invalid, void or unenforceable provision.

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