

- + The category pipe penetrations includes **drains, floor and wall penetrations, casings, recesses and tie points.**
- + The surrounding **KRASO® 4 Seal** is joined to the pipe penetration force fit, **this prevents creep or slippage.** Due to the special geometry our **KRASO® 4 Seal** produces a **grip with the concrete.**
- + Altogether this results in a **water pressure tightness up to 10 bar - MPA-tested!** The **KRASO® 4 Seal** also protects against the naturally occurring noble gas radon and by this **prevents a concentration of the radioactive gas in indoor spaces.**
- + All pipe penetrations are also available as KG 2000 with thermally welded **KRASO® 4 Seal.**
- + Valid for our wall and pipe penetrations: **pipes and pipe material are in accordance with the terms of DIN EN 1401 (KG) or DIN EN 14758 (KG 2000).**
- + All our stainless steel casings and sleeves are made of non-corrosive **stainless steel V2A** - on request also as V4A.



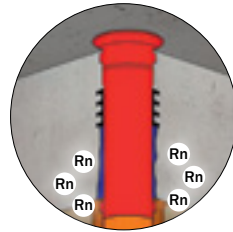
## Pipe Penetrations



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**KRASO® Floor Penetration Type BDF**  
Here there is an installation video  
(just scan in the QR-Code!)



**KRASO® Floor Penetration Type BDF**  
The water pressure tight surrounding  
**KRASO® 4 Seal** is also protection against  
the radioactive noble gas radon!

**KRASO® Solid Wall Material**

- pressure and dimensionally stable
- unbreakable
- shock-resistant
- low abrasion
- easy to install at low temperatures



**foamed material**

Opposed to our pipe penetrations made of solid wall material, foamed pipes have a lower degree of stability.

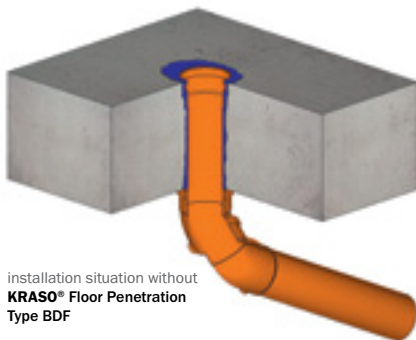


# KRASO® Floor Penetration Type BDF

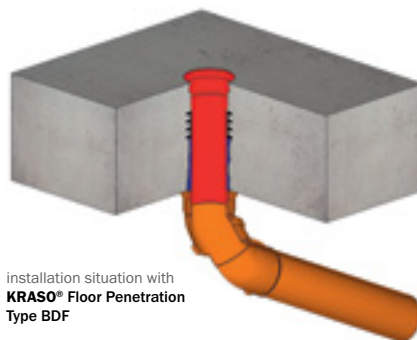
## Simple, tight and approved

- + The proven floor penetration with **KRASO® 4 Seal - MPA-tested up to 10 bar!**
- + **Radon-tight:** prevents from a harmful to health concentration of the radioactive noble gas!
- + Made of **pressure- and dimensionally stable solid wall material with low abrasion!**  
**Easy installation at low temperatures.**
- + Pipes and pipe material in accordance with terms of **DIN EN 1401 (KG)** or **DIN EN 14758 (KG 2000).**
- + Also available as **KG 2000:** made of polypropylene (PP), mineral-filled, smooth walls, long-lasting.
- + Also available with oil- and bitumen resistant **KRASO® Foil Flange.**
- + Formed plug-in sleeve on one side, for connection to **KG/HT pipes.**
- + Including **KRASO® Cover** as an installation aid.
- + **KRASO® Product Innovation:** Type BDF as **thermally insulated floor penetration!**
- + **DafStB waterproof concrete guideline:** Stress class **1 + 2**, with foil flange **DIN 18533 W1-E**

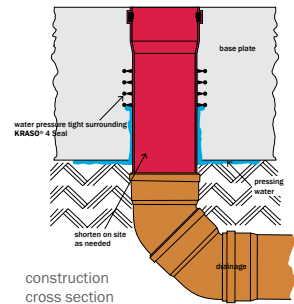
PIPE PENETRATIONS



installation situation without  
**KRASO® Floor Penetration Type BDF**



installation situation with  
**KRASO® Floor Penetration Type BDF**



construction cross section

### KRASO® Floor Penetration Type BDF **LG 1**

in accordance with DIN EN 1401, for installation in waterproof base plates for connection to KG/HT pipes, with water pressure tight surrounding **KRASO® 4 Seal**, formed plug-in sleeve on one side and **KRASO® Cover** as an installation aid, also available with **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**

| **DafStB waterproof concrete guideline:** Stress class **1 + 2**, with foil flange **DIN 18533 W1-E**



**KRASO® Floor Penetration Type BDF with foil flange**

Type / Item	KRASO® Type BDF • KRASO® Type BDF with foil flange							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
<b>KRASO® Type BDF</b>	39 €	42 €	51 €	67 €	132 €	203 €	256 €	395 €
<b>KRASO® Type BDF with foil flange</b>	74 €	80 €	87 €	118 €	187 €	256 €	414 €	563 €
<b>KRASO® PU 50</b>	21 €							

**Scope of supply:** KRASO® Type BDF or KRASO® Type BDF with foil flange, **KRASO® Cover** as an installation aid

**Further diameters and lengths from 50 cm available on request!**



KRASO® Floor Penetration Type BDF - KG 2000 with foil flange ▶

### KRASO® Floor Penetration Type BDF - KG 2000 **LG 1**

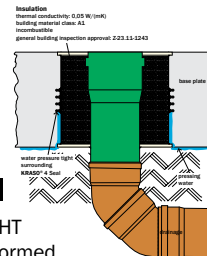
in accordance with DIN EN 14758, for the installation in waterproof base plates for connection to system KG 2000 lines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on one side and **KRASO® Cover** as an installation aid, also available with **KRASO® Foil Flange**, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**  
 | DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E

Type / Item	KRASO® Type BDF - KG 2000 • KRASO® Type BDF - KG 2000 with foil flange							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
KRASO® Type BDF - KG 2000	50 €	56 €	74 €	107 €	255 €	343 €	448 €	612 €
KRASO® Type BDF - KG 2000 with foil flange	84 €	92 €	109 €	156 €	309 €	398 €	596 €	794 €
KRASO® PU 50	21 €							

**Scope of supply:** KRASO® Type BDF - KG 2000 or KRASO® Type BDF - KG 2000 with foil flange, KRASO® Cover as an installation aid  
**Further diameters and lengths from 50 cm available on request!**



KRASO® Floor Penetration Type BDF - thermally insulated - construction cross section



### KRASO® Floor Penetration Type BDF - thermally insulated - **LG 1**

in accordance with DIN EN 14758, for installation in waterproof base plates for connection to KG/HT pipes or KG 2000 lines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on one side and thermally insulated body surrounding approx. 5 cm, **KRASO® Cover** as an installation aid  
 | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type BDF - thermally insulated -							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length (in cm)	50							
KRASO® Type BDF - thermally insulated -	189 €	201 €	224 €	307 €	492 €	616 €	711 €	833 €

**Scope of supply:** KRASO® Type BDF - thermally insulated -, KRASO® Cover as an installation aid  
**Further diameters and lengths from 50 cm available on request!**



### Rodding eye for KRASO® Type BDF **LG 1**

15 x 15 cm - screwable -



Diameter DN	110
Rodding eye for KRASO® Type BDF	346 €

**Scope of supply:** Rodding eye for KRASO® Type BDF

New Product!



WU  
1+2

## KRASO® Wall Collar

### Fast, simple, and tight

- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + Resistant to methane gas!
- + For practically all smooth pipes in DN 110, DN 125 and DN 160: KG, KG 2000 and HT - pipes!
- + Tool-free assembly – simple and fast:  
The KRASO® Wall Collar simply has to be pulled over the pipe!
- + DafStB waterproof concrete guideline: Stress class 1 + 2

PIPE PENETRATIONS

Tool-free assembly!



### KRASO® Wall Collar **LG 1**

for water pressure tight connection of pipelines with a smooth surface (KG, KG 2000, HT) in waterproof concrete structures: base plate and wall, MPA-tested up to 5 bar.  
| DafStB waterproof concrete guideline: Stress class 1 + 2

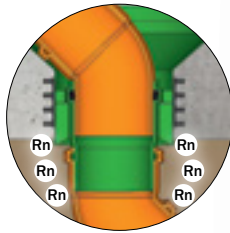
Type / Item	KRASO® Wall Collar		
Diameter pipeline	DN 110	DN 125	DN 160
<b>KRASO® Wall Collar</b>	<b>18 €</b>	<b>22 €</b>	<b>28 €</b>

Scope of supply: KRASO® Wall Collar

Further special designs available on request!



**KRASO® Universal Funnel**  
Here there is an installation video  
(just scan in the QR-Code!)



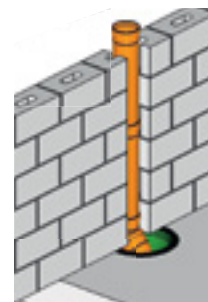
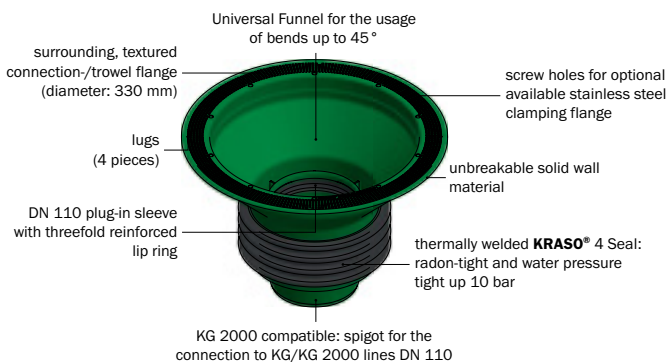
**KRASO® Universal Funnel**  
The water pressure tight surrounding  
**KRASO® 4 Seal** is also protection against  
the radioactive noble gas radon!



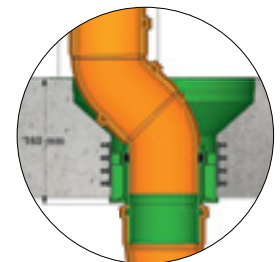
## KRASO® Universal Funnel

### The floor penetration for more flexibility

- + **Gas- and water pressure tight!** With its surrounding, **MPA-tested**, thermally welded **KRASO® 4 Seal** the **KRASO® Universal Funnel** protects against pressing water up to **10 bar** and is furthermore **gas-tight** - also tight against radioactive radon.
- + **KG 2000 compatible:** for the connection to KG/KG 2000 lines!
- + **More flexibility!** Displaced fall pipes can be corrected easily with the help of the funnel and bends up to **45 degrees**. Including plug-in sleeve diameter DN 110 and **threefold reinforced lipped ring** for a secure and tight KG connection.
- + **Manifold connections!** The surrounding, textured connection-/trowel flange with a diameter of 330 mm is suitable for the integration of adhesive foils and bitumen welded sheets. For non-adhesive foils a screwable stainless steel flange as fixed-loose flange construction is optional available.
- + **Simple installation!** The **KRASO® Universal Funnel** comes **ready-to-use** and does not have to be assembled on site. Four lugs secure an accurate and easy positioning in the base plate. The **unbreakable solid wall material** as well as the included **walkable building period cover** protect against damages during the building period.
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



installation situation with **KRASO® Universal Funnel**



construction cross section

### KRASO® Universal Funnel **LG 1**

for the installation in waterproof concrete base plates for the connection of displaced KG/HT pipes and for connection to KG/KG 2000 lines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, one-sided spigot, walkable building period protective cover and additional protective cover. Optional available: screwable **KRASO® Stainless Steel Clamping Flange** for the connection to non-adhesive foils | **DafStB waterproof concrete guideline: Stress class 1 + 2**



Type / Item	KRASO® Universal Funnel
Line: diameter DN	110
Diameter trowel flange	330 mm
<b>KRASO® Universal Funnel</b>	53 €
<b>KRASO® Stainless Steel Clamping Flange</b>	70 €

**Scope of supply:** **KRASO® Universal Funnel**, walkable building period protective cover, additional protective cover  
Optional available: **KRASO® Stainless Steel Clamping Flange**



**KRASO®** Wall Penetration Type B  
Here there is an installation video  
(just scan in the QR-Code!)

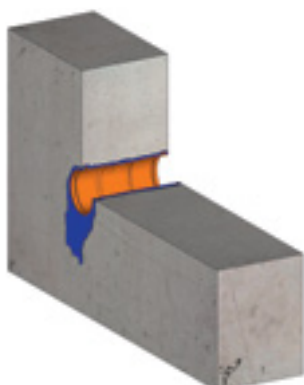


## KRASO® Wall Penetration Type B

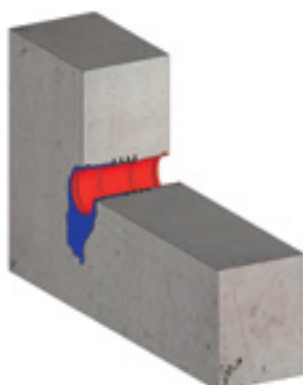
### The proven wall penetration made of solid wall material

- + With water pressure tight surrounding **KRASO® 4 Seal** - MPA-tested up to 10 bar!
- + **Radon-tight**: prevents from a harmful to health concentration of the radioactive noble gas!
- + Made of **dimensionally and pressure stable solid wall material with low abrasion!**  
**Easy installation at low temperatures.**
- + Pipe and pipe material in accordance with **DIN EN 1401 (KG)** or **DIN EN 14758 (KG 2000)**.
- + Also available as **KG 2000**: made of polypropylene (PP), mineral-filled, smooth walls, long-lasting.
- + Formed plug-in sleeve on both sides for connection to **KG/HT pipes**.
- + Including two **KRASO® Covers** as an installation aid.
- + **KRASO®** Product Innovation: Type B as **thermally insulated wall penetration!**
- + **DafStB** waterproof concrete guideline: **Stress class 1 + 2**

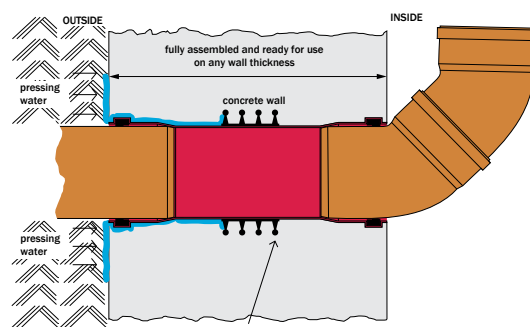
PIPE PENETRATIONS



installation situation without  
**KRASO®** Wall Penetration Type B



installation situation with  
**KRASO®** Wall Penetration Type B



construction cross section

### KRASO® Wall Penetration Type B **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls for connection to KG/HT pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal**, formed plug-in sleeve on both sides and 2 **KRASO®** Covers as an installation aid  
| **DafStB** waterproof concrete guideline: **Stress class 1 + 2**

Type / Item	KRASO® Type B							
Diameter DN	110	125	160	200	250	315 <sup>1</sup>	400 <sup>1</sup>	500 <sup>1</sup>
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50							
<b>KRASO®</b> Type B	52 €	62 €	69 €	97 €	239 €	395 €	473 €	571 €
Surcharge: special dimensions up to 50 cm	21 €				34 €			

<sup>1</sup> Only usable as push-through sleeve because the plug-in length after EN 1401-1 is not suitable for double-sided usage

**Scope of supply:** **KRASO®** Type B, 2 **KRASO®** Cover as an installation aid

**Further diameters and wall thicknesses available on request!**



## KRASO® Wall Penetration Type B - KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection to system KG 2000 lines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on both sides and 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type B - KG 2000							
Diameter DN	110	125	160	200	250	315 <sup>1</sup>	400 <sup>1</sup>	500 <sup>1,2</sup>
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50							
<b>KRASO® Type B - KG 2000</b>	72 €	81 €	111 €	169 €	287 €	476 €	617 €	1.067 €
<b>Surcharge: special dimensions up to 50 cm</b>	21 €				34 €			

<sup>1</sup> Only usable as push-through sleeve because the plug-in length after EN 1401-1 is not suitable for double-sided usage

<sup>2</sup> For product-technical reasons wall thickness 20 cm with **KRASO® 3 Seal**

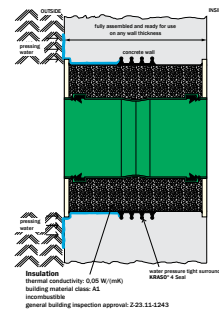
**Scope of supply:** **KRASO® Type B - KG 2000**, 2 **KRASO® Cover** as an installation aid

**Further diameters and wall thicknesses available on request!**



## KRASO® Wall Penetration Type B - thermally insulated - **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection to KG, HT or KG 2000 lines on both sides, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid and thermally insulated body surrounding approx. 5 cm | **DafStB waterproof concrete guideline: Stress class 1 + 2**



**KRASO® Wall Penetration Type B - thermally insulated - construction cross section**



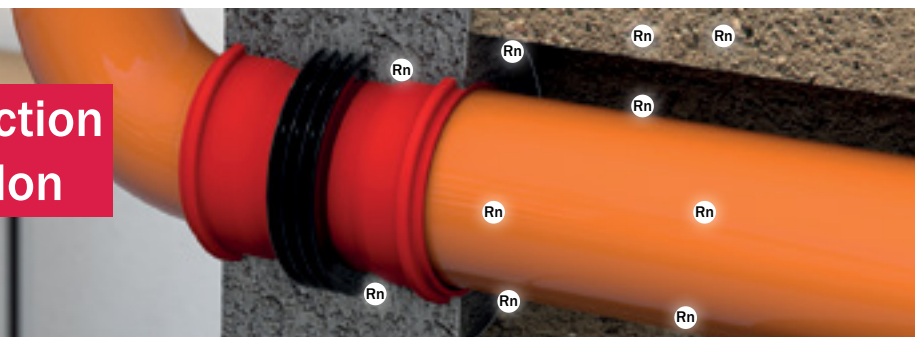
Type / Item	KRASO® Type B - thermally insulated -							
Diameter DN	110	125	160	200	250	315 <sup>1</sup>	400 <sup>1</sup>	500 <sup>1</sup>
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50							
<b>KRASO® Type B - thermally insulated -</b>	249 €	275 €	302 €	352 €	533 €	799 €	925 €	1.646 €

<sup>1</sup> Only usable as push-through sleeve because the plug-in length after EN 1401-1 is not suitable for double-sided usage

**Scope of supply:** **KRASO® Type B - thermally insulated -**, 2 **KRASO® Cover** as an installation aid

**Further diameters and wall thicknesses available on request!**

## KRASO® 4 Seal - protection against radioactive radon



- + Radon is a naturally occurring radioactive gas. A concentration of the noble gas in rooms applies as harmful to health.
- + **KRASO® Sealing Inserts** and **KRASO® Pipe Penetrations** with 4 Seal are not only a protection against pressing water, they are also gas-tight - also against radon: IAF-tested! **For a reliable protection against radon look for the sign "RADON-TIGHT!"**





### KRASO® Wall Penetration Type Universal **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls, for connection to KG/HT pipes on both sides (**Uni B**) or for pipes to be pushed through (**Uni D**), with water pressure tight surrounding **KRASO® 4 Seal**. The markings are for a simple shortening on site to standard wall thicknesses  
**| DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type Universal B • KRASO® Type Universal D		
Diameter DN	110	125	160
for wall thicknesses from ... to ... (in cm)	12 - 30	12 - 30	17,5 - 36,5
<b>KRASO® Type Universal B</b>	52 €	62 €	69 €
<b>KRASO® Type Universal D</b>			

**Scope of supply:** KRASO® Type Universal B with formed plug-in sleeve on both sides, 2 KRASO® Covers as an installation aid • KRASO® Type Universal D with integrated push-through sleeve, 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request!**



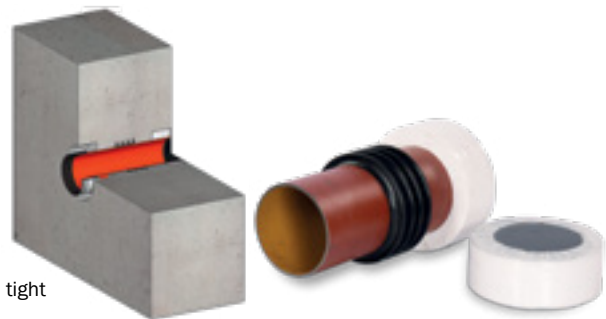
### KRASO® Wall Penetration Type Universal - KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls, for connection to KG 2000 lines on both sides (**Uni B - KG 2000**) or for pipes to be pushed through (**Uni D - KG 2000**), with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. The markings are for a simple shortening on site to standard wall thicknesses  
**| DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type Universal B - KG 2000 • KRASO® Type Universal D - KG 2000		
Diameter DN	110	125	160
for wall thicknesses from ... to ... (in cm)	15 - 30	17,5 - 30	20 - 36,5
<b>KRASO® Type Universal B - KG 2000</b>	83 €	98 €	130 €
<b>KRASO® Type Universal D - KG 2000</b>			

**Scope of supply:** KRASO® Type Universal B - KG 2000 with formed plug-in sleeve on both sides, 2 KRASO® Covers as an installation aid • KRASO® Type Universal D - KG 2000 with integrated push-through sleeve, 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses in KG 2000 available on request!**



### KRASO® Wall Penetration Type SML **LG 1**

grey iron waste water pipe according DIN EN 877 for installation in waterproof concrete walls for connection to SML pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal**, styrofoam recess core on both sides  
**| DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type SML				
Diameter DN	110	125	160	200	250
available standard wall thicknesses in cm	24 · 25 · 30				
<b>KRASO® Type SML</b>	84 €	100 €	126 €	227 €	332 €
Surcharge: per every 10 cm requested	12 €	13 €	16 €	38 €	44 €

**Scope of supply:** KRASO® Type SML, styrofoam recess core on both sides

**Further diameters and wall thicknesses available on request! Also available in TML and KML for an additional charge!**





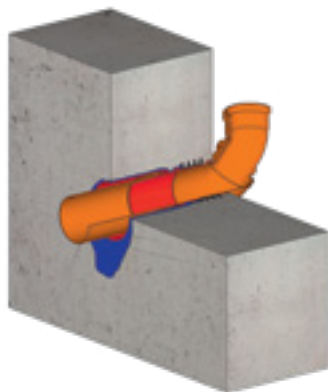
**KRASO®** Wall Penetration Type FR  
Here there is an installation video  
(just scan in the QR-Code!)



## KRASO® Wall Penetration Type FR

### Always the right direction of flow

- + Thanks to the **KRASO®** Wall Penetration Type FR waste water always maintains the correct **direction of flow!** Unnecessary edges are prevented. **Blocked pipes: impossible!**
- + The **flexible and yet watertight connection** to the pipe system means that **stresses** due to settling of the KG lines are prevented!
- + **Basements and cellars remain dry** thanks to the up to **10 bar water pressure** tight surrounding **KRASO® 4 Seal** and are protected from radon.
- + **Radon-tight:** prevents from a harmful to health concentration of the radioactive noble gas!
- + **Made of solid wall material!** Also available as **KG 2000** made of polypropylen (PP), mineral-filled, smooth walls, long-lasting.
- + Pipe and pipe material in accordance with **DIN EN 1401 (KG)** or **DIN EN 14758 (KG 2000)**.
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



installation situation  
**KRASO®** Wall Penetration Type FR



cross section

#### KRASO® Solid Wall Material

- pressure and dimensionally stable
- unbreakable
- shock-resistant
- low abrasion
- easy to install at low temperatures



#### foamed material

Opposed to our pipe penetrations made of solid wall material, foamed pipes have a lower degree of stability.

### KRASO® Wall Penetration Type FR - flow direction **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls, for connection to KG/HT pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal**, formed plug-in sleeve on one side, one-sided spigot and 2 **KRASO®** Covers as an installation aid  
| **DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type FR		
Diameter DN	110	125	160
available standard wall thicknesses in cm	20 <sup>1</sup> · 24 · 25 · 30		
<b>KRASO®</b> Type FR	52 €	62 €	69 €

<sup>1</sup> 20 cm wall thickness only available in DN 110

**Scope of supply:** **KRASO®** Type FR, 2 **KRASO®** Covers as an installation aid



## KRASO® Wall Penetration Type FR - KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for the connection to KG 2000 pipes on both sides, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, formed plug-in sleeve on one side, one-sided spigot and 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Type FR - KG 2000		
Diameter DN	110	125	160
available standard wall thicknesses in cm	24 · 25 · 30		
<b>KRASO® Type FR - KG 2000</b>	<b>72 €</b>	<b>81 €</b>	<b>111 €</b>

**Scope of supply:** KRASO® Type FR - KG 2000, 2 KRASO® Cover as an installation aid

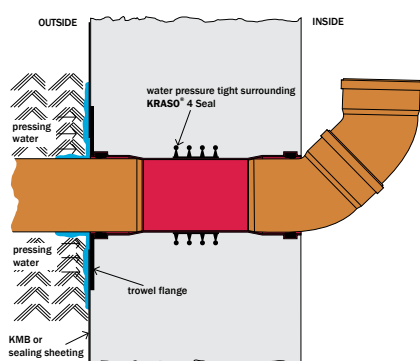


## KRASO® Wall Penetration Type B/SF 5 For the secure connection of bitumen thick coating

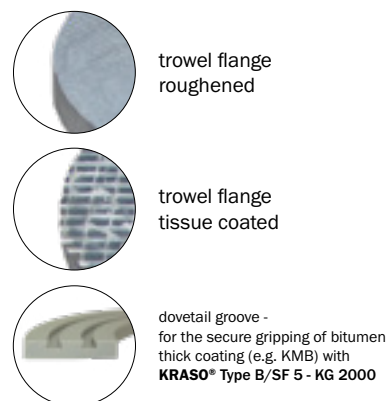
- + Wall Penetration **made of solid wall material**, for installation in concrete walls.
- + Pipe and pipe material in **accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)**.
- + Surrounding approx. 5 cm trowel flange on one side **for a secure connection of bitumen thick coating as e.g. KMB: roughened or tissue coated**.
- + With water pressure tight surrounding **KRASO® 4 Seal: water pressure tight up to 10 bar!**
- + **Radon-tight:** prevents from a harmful to health concentration of the radioactive noble gas!
- + Also available: trowel flange made of PP with dovetail groove as **KRASO® Type B/SF 4 - KG 2000** for the secure gripping of bitumen thick coating (e.g. KMB).
- + **DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E**



installation situation  
KRASO® Wall Penetration Type B/SF 5



construction cross section





WU
1+2

W1-E
W2.1-E



### KRASO® Wall Penetration Type B/SF 5 **LG 1**

in accordance with DIN EN 1401, for installation in waterproof concrete walls for connection to KG/HT pipes on both sides, with trowel flange on one side, roughened (**KRASO®** Type B/SF 5 - R) or tissue coated (**KRASO®** Type B/SF 5 - G) for the secure connection of bitumen thick coating (e.g. KMB), surrounding approx. 5 cm, with water pressure tight surrounding **KRASO®** 4 Seal, formed plug-in sleeve on both sides and 2 **KRASO®** Covers as an installation aid | **DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1-E and W2.1-E**

Type / Item	KRASO® Type B/SF 5					
Diameter DN	110	125	160	200	250	315
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
<b>KRASO®</b> Type B/SF 5 - R	78 €	94 €	107 €	137 €	306 €	488 €
<b>KRASO®</b> Type B/SF 5 - G	86 €	98 €	111 €	143 €	311 €	497 €

**Scope of supply:** **KRASO®** Type B/SF 5 - R with trowel flange SF/5 on one side, roughened, 2 **KRASO®** Covers as an installation aid • **KRASO®** Type B/SF 5 - G with trowel flange SF/5 on one side, tissue coated, 2 **KRASO®** Covers as an installation aid

**Further diameters and wall thicknesses available on request!**



WU
1+2

W1-E
W2.1-E



### KRASO® Wall Penetration Type B/SF 5 - KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection to KG 2000 - pipes, with trowel flange on one side with dovetail groove for the secure connection of bitumen thick coating (e.g. KMB), with water pressure tight surrounding, thermally welded **KRASO®** 4 Seal, formed plug-in sleeve on both sides and 2 **KRASO®** Covers as an installation aid | **DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1-E and W2.1-E**

Type / Item	KRASO® Type B/SF 5 - KG 2000					
Diameter DN	110	125	160	200	250	315
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
<b>KRASO®</b> Type B/SF 5 - KG 2000	146 €	162 €	186 €	246 €	499 €	747 €

**Scope of supply:** **KRASO®** Type B/SF 5 - KG 2000, 2 **KRASO®** Cover as an installation aid

**Further diameters and wall thicknesses available on request!**

## Pipe penetrations and adhesives: KG 2000

- + Many plastic adhesives are supplied in bottles made of polypropylene, since they do not stick. KG 2000 pipe penetrations are also made of polypropylene. Therefore, **problems can occur** when a seal is **glued on KG 2000 pipes!**
- + For that reason **we thermally weld** our water pressure tight surrounding **KRASO®** 4 Seal! **This means that the water cannot infiltrate the seal under any circumstances.**

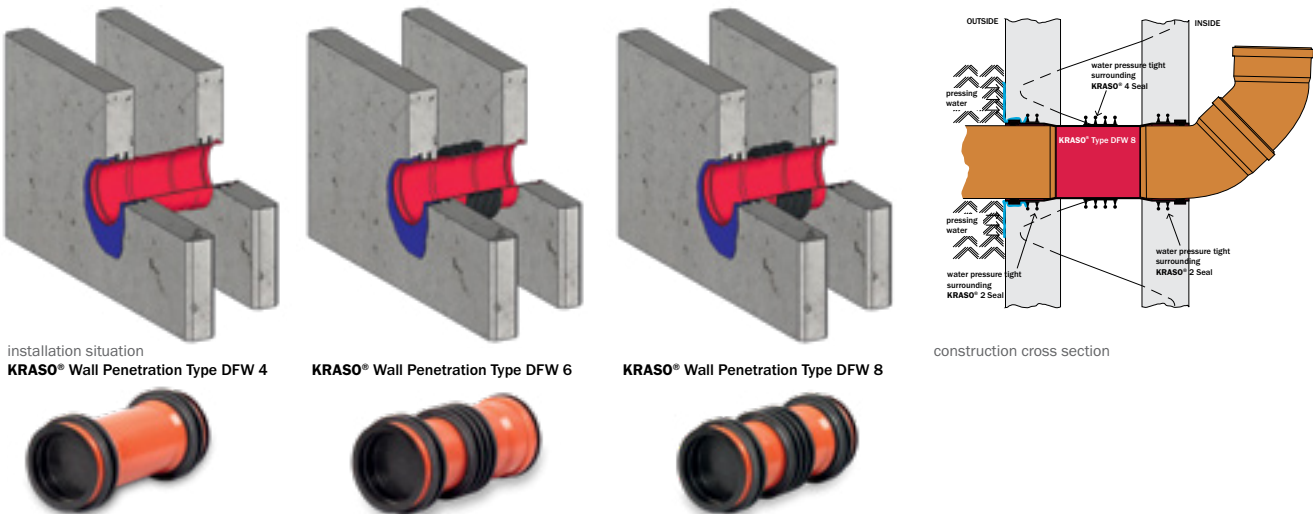




## KRASO® Wall Penetration Type DFW

### A simple and secure sealing of precast factories

- + Triple wall elements are standard today from a technical point of view and have many advantages that cannot be overlooked on the construction site.
- + Since two construction joints are produced transversely from the inner and outer shells and a core that has been cast in situ when making the wall, any water that occurs should be stopped at the outer shell. This prevents any slip or creepage of the pipe penetration.
- + Depending on the requirements and the loads involved in that particular case, we can offer in the form of our KRASO® Type DFW Wall Penetrations a simple and tight solution to meet this challenge!
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000).
- + DafStB waterproof concrete guideline: Stress class 1 + 2



### KRASO® Wall Penetration Type DFW - triple wall - specially made for precast factories - **LG 1**

in accordance with DIN EN 1401, for installation into triple walls, for connection to KG/HT pipes on both sides, with formed plug-in sleeve on both sides and water pressure tight surrounding KRASO® 2 Seal on both sides (KRASO® Type DFW 4), KRASO® 2 Seal on one side and central water pressure tight surrounding KRASO® 4 Seal (KRASO® Type DFW 6), KRASO® 2 Seal on both sides and central water pressure tight surrounding KRASO® 4 Seal (KRASO® Type DFW 8), 2 KRASO® Covers as an installation aid  
 | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type DFW					
Diameter DN	110	125	160	200	250	315 <sup>1</sup>
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
KRASO® Type DFW 4	67 €	78 €	88 €	118 €	295 €	487 €
KRASO® Type DFW 6	73 €	82 €	93 €	130 €	327 €	539 €
KRASO® Type DFW 8	93 €	107 €	122 €	160 €	409 €	672 €
Surcharge: special dimensions up to 50 cm	21 €					34 €

<sup>1</sup> Only usable as push-through sleeve because the plug-in length after EN 1401-1 is not suitable for double-sided usage

**Scope of supply:** KRASO® Type DFW 4, KRASO® Type DFW 6 bzw. KRASO® Type DFW 8, 2 KRASO® Cover as an installation aid

**Further diameters and wall thicknesses available on request!**



KRASO® Type DFW 4 - KG 2000 KRASO® Type DFW 6 - KG 2000 KRASO® Type DFW 8 - KG 2000

## KRASO® Wall Penetration Type DFW - KG 2000 - triple wall - specially made for precast factories **LG 1**

in accordance with DIN EN 14758, for installation into triple walls, for connection to KG 2000 lines on both sides, with formed plug-in sleeve on both sides and water pressure tight surrounding, thermally welded **KRASO® 2 Seal** on both sides (**KRASO® Type DFW 4 - KG 2000**), **KRASO® 2 Seal** on one side and central water pressure tight surrounding, thermally welded **KRASO® 4 Seal** (**KRASO® Type DFW 6 - KG 2000**), **KRASO® 2 Seal** on both sides and central water pressure tight surrounding, thermally welded **KRASO® 4 Seal** (**KRASO® Type DFW 8 - KG 2000**), 2 **KRASO® Covers** as an installation aid

| DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type DFW - KG 2000					
Diameter DN	110	125	160	200	250	315 <sup>1,2</sup>
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
<b>KRASO® Type DFW 4 - KG 2000</b>	95 €	104 €	147 €	216 €	368 €	609 €
<b>KRASO® Type DFW 6 - KG 2000</b>	104 €	116 €	161 €	239 €	409 €	673 €
<b>KRASO® Type DFW 8 - KG 2000</b>	130 €	144 €	202 €	298 €	509 €	841 €
Surcharge: special dimensions up to 50 cm	21 €				34 €	

<sup>1</sup> Only usable as push-through sleeve because the plug-in length after EN 1401-1 is not suitable for double-sided usage

<sup>2</sup> For product-technical reasons wall thickness 20 cm with **KRASO® 3 Seal**

**Scope of supply:** **KRASO® Type DFW 4 - KG 2000**, **KRASO® Type DFW 6 - KG 2000** or **KRASO® Type DFW 8 - KG 2000**, 2 **KRASO® Cover** as an installation aid

**Further diameters and wall thicknesses available on request!**



KRASO® Type DFW/FE 4 KRASO® Type DFW/FE 6 KRASO® Type DFW/FE 8

## KRASO® Casing Type DFW/FE - triple wall - specially made for precast factories - **LG 1**

for installation into triple walls, thick-walled plastic casing true diameter for concreting, as a recess for later installation of pipes or cables using **KRASO® Sealing Insert** (not included in the delivery), water pressure tight surrounding **KRASO® 2 Seal** on both sides (**KRASO® Type DFW/FE 4**), **KRASO® 2 Seal** on one side and central water pressure tight surrounding **KRASO® 4 Seal** (**KRASO® Type DFW/FE 6**), **KRASO® 2 Seal** on both sides and central water pressure tight surrounding **KRASO® 4 Seal** (**KRASO® Type DFW/FE 8**), 2 **KRASO® Covers** as an installation aid

ID = InternalDiameter true diameter casing | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type DFW/FE					
InternalDiameter ID	100	125	150	200	250	300
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
<b>KRASO® Type DFW/FE 4</b>	44 €	48 €	53 €	79 €	89 €	95 €
<b>KRASO® Type DFW/FE 6</b>	49 €	53 €	60 €	86 €	101 €	107 €
<b>KRASO® Type DFW/FE 8</b>	62 €	66 €	73 €	109 €	125 €	130 €
Surcharge: per every 10 cm	1,40 €	2,20 €	2,40 €	4,70 €	8,30 €	14,10 €

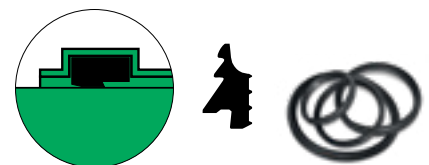
**Scope of supply:** **KRASO® Type DFW/FE 4**, **KRASO® Type DFW/FE 6** or **KRASO® Type DFW/FE 8**, 2 **KRASO® Cover** as an installation aid

**Further diameters and wall thicknesses available on request!**



## NBR Seal **LG 1**

Oil-resistant lip seal for system KG 2000



Type / Item	NBR Seal							
Diameter DN	110	125	160	200	250	315	400	500
NBR Seal	10 €	18 €	36 €	55 €	110 €	191 €	211 €	283 €

**Scope of supply:** NBR Seal

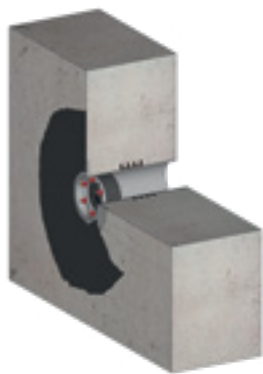


## KRASO® Casing Type FE/SF 5

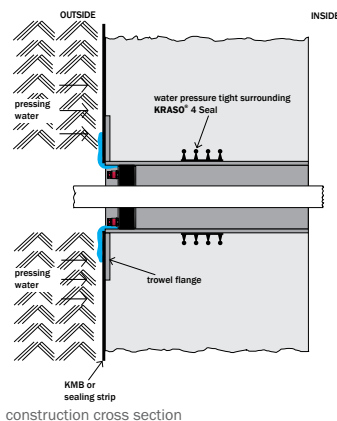
Thick-walled plastic casing - true diameter for the secure connection of bitumen thick coating

- + Thick-walled true diameter plastic casing for concreting.
- + As a recess for later installation of pipes or cables using **KRASO® Sealing Insert**.
- + Approx. 5 cm surrounding trowel flange on one side, for a secure connection of bitumen thick coating as e.g. KMB: roughened or tissue coated.
- + With water pressure tight as well as gas- and odour-tight, surrounding **KRASO® 4 Seal!**  
MPA-tested: water pressure tight up to 10 bar!
- + IAF tested: Radon-tight! prevents from a harmful to health concentration of the radioactive noble gas!
- + Tested according to FHRK test specification GE 102!
- + Also available: trowel flange made of PP with dovetail groove as **KRASO® Casing Type FE/SF 5 - KG 2000** for the secure gripping of bitumen thick coating (e.g. KMB).
- + DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

PIPE PENETRATIONS



installation situation  
KRASO® Casing Type FE/SF 5



construction cross section



### KRASO® Casing Type FE/SF 5 **LG1**

thick-walled plastic casing - true diameter for concreting, with trowel flange on one side, roughened (**KRASO® Type FE/SF 5 - R**) or tissue coated (**KRASO® Type FE/SF 5 - G**) for the secure connection of bitumen thick coating (e.g. KMB), surrounding approx. 5 cm, with water pressure-, gas- and odour-tight surrounding **KRASO® 4 Seal** and 2 **KRASO® Covers** as an installation aid  
ID = InternalDiameter true diameter casing | **DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E**

Type / Item	KRASO® Type FE/SF 5					
InternalDiameter ID	100	125	150	200	250	300
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50					
<b>KRASO® Type FE/SF 5 - R</b>	64 €	70 €	78 €	107 €	124 €	138 €
<b>KRASO® Type FE/SF 5 - G</b>	68 €	77 €	83 €	111 €	128 €	143 €

**Scope of supply:** KRASO® Type FE/SF 4 - R with trowel flange SF/5 on one side, roughened, 2 **KRASO® Covers** as an installation aid • KRASO® Type FE/SF 5 - G with trowel flange SF/5 on one side, tissue coated, 2 **KRASO® Covers** as an installation aid

**Further diameters and wall thicknesses available on request!**



**KRASO® Casing Type FE**  
Here there is an installation video  
(just scan in the QR-Code!)



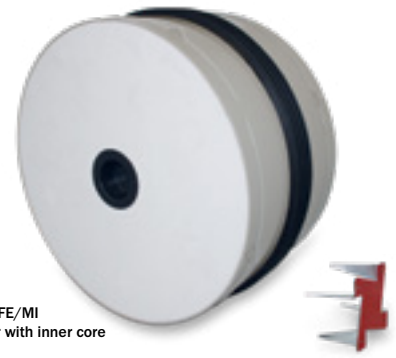
**KRASO® Casing Type FE** - Casing true diameter  
with installation covers



WU
1+2

## KRASO® Casing Type FE and FE/MI Convincing casings!

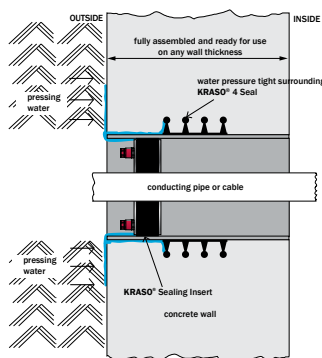
- + Thick-walled plastic casing - true diameter - for concreting: as a recess for later installation of pipes or cables using **KRASO® Sealing Insert**!
- + With **water pressure tight surrounding KRASO® 4 Seal**: due to the special geometry our surrounding 4 seal produces a **grip** with the concrete that is **water-, gas- and odour-tight**.  
**MPA-tested: water pressure tight up to 10 bar!**
- + **Materials and processing: KRASO® Casings** are made of **weatherproof, high-impact plastic**. The water pressure tight surrounding **KRASO® 4 Seal** is joined monolithically to the plastic pipe by **vulcanization**.
- + **Flexibility**: we offer **KRASO® Casings** in a wide variety of different formats. **Varying diameters or wall thicknesses are available on short-term notice!**  
If necessary, the size can be **adapted individually** on the construction site!
- + **Weight**: low weight, and hence **easy handling** on the construction site and **low transport costs!**
- + **Scope of supply: KRASO® Casings** are supplied complete with **installation covers!**
- + **Installation: simple installation** thanks to low weight and **KRASO® Covers** as installation aid. **No pre-treatment is required!**
- + **IAF tested: Radon-tight!**
- + **Tested according to FHRK test specification GE 102!**
- + We offer the matching **KRASO® Sealing Inserts** for all **KRASO® Casings**.
- + **DafStB waterproof concrete guideline: Stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E**



**KRASO® Casing Type FE/MI**  
- casing true diameter with inner core  
with fixed claw



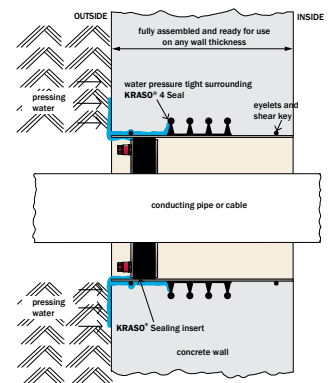
installation situation  
**KRASO® Casing Type FE**



construction cross section  
**KRASO® Casing Type FE**



installation situation  
**KRASO® Casing Type FE/MI**



construction cross section  
**KRASO® Casing Type FE/MI**



### KRASO® Casing Type FE - casing true diameter **LG 1**

thick-walled true diameter plastic casing for concreting, colour grey, as a recess for later installation of pipes or cables using **KRASO®** Sealing Insert (not included in the delivery), with water pressure-, gas- and odour-tight, surrounding **KRASO®** 4 Seal and 2 **KRASO®** Covers as an installation aid

ID = InternalDiameter true diameter casing  
 | DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® Type FE						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50						
<b>KRASO® Type FE</b>	40 €	41 €	43 €	47 €	69 €	80 €	86 €
Surcharge: per every 10 cm requested up to wall thickness 100 cm	1,30 €	1,40 €	2,20 €	2,40 €	4,70 €	8,30 €	14,10 €

**Scope of supply:** KRASO® Casing Type FE, 2 KRASO® Cover as an installation aid

**Further diameters and wall thicknesses available on request!**

PIPE PENETRATIONS



### KRASO® Casing Type FE/MI - casing true diameter with inner core **LG 1**

true diameter plastic casing for concreting with inner core stabilisation, colour beige, as a recess for later installation of pipes or cables using **KRASO®** Sealing Insert (not included in the delivery), with water pressure-, gas- and odour-tight surrounding, thermally welded **KRASO®** 4 Seal, eyelets, shear key and enclosed fixed claw as an installation aid

ID = InternalDiameter true diameter casing

| DafStB waterproof concrete guideline: Stress class 1 + 2

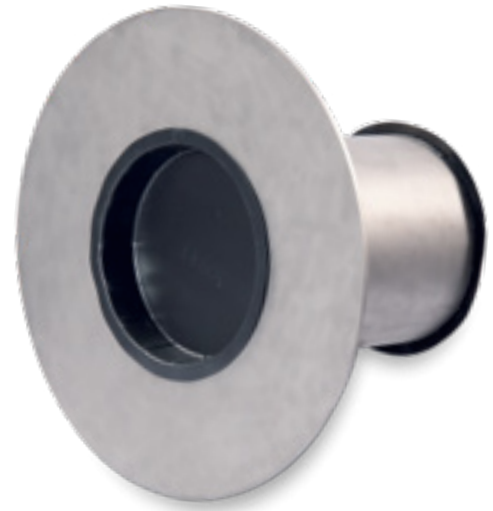


Type / Item	KRASO® Type FE/MI											
InternalDiameter ID	350	400	450	500	600	700	800	900	1000	1100	1200	1300
available standard wall thicknesses in cm	20 · 24 · 25 · 30 · 35 · 36,5 · 40 · 45 · 50											
<b>KRASO® Type FE/MI</b>	231 €	253 €	272 €	288 €	445 €	589 €	694 €	877 €	927 €	1.163 €	1.255 €	1.349 €
Surcharge: per every 5 cm requested up to wall thickness 100 cm	12 €	14 €	18 €	19 €	25 €	34 €	40 €	51 €	60 €	75 €	85 €	95 €

**Scope of supply:** KRASO® Casing Type FE/MI, enclosed fixed claw as an installation aid

**Further diameters and wall thicknesses available on request!**





## KRASO® Casings with bonding flange

### Simple integration into the sealing of larger areas

- + True diameter casing with surrounding bonding flange according DIN 18533 for a simple and fast integration into the sealing of larger areas (“black tank”).
- + As a recess for later installation of pipe or cables using KRASO® Sealing Insert!
- + Available in non-corrosive stainless steel or with thick-walled true diameter plastic casing.
- + DIN 18533 W1 -E and W2.1 -E

#### KRASO® Casing E/FE/KF **LG 1**

##### - stainless steel/true diameter casing/bonding flange

true diameter stainless steel casing with stainless steel bonding flange, surrounding approx. 12 cm, according DIN 18533, for concreting, made of non-corrosive stainless steel V2A, for installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), with 2 KRASO® Covers as an installation aid.

ID = InternalDiameter true diameter casing | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Casing E/FE/KF						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 • 24 • 25 • 30						
Diameter bonding flange	surrounding 120 mm						
KRASO® Casing E/FE/KF	153 €	198 €	218 €	251 €	288 €	386 €	454 €
Surcharge: per every 10 cm requested	22 €	28 €	32 €	36 €	42 €	55 €	64 €

**Scope of supply:** KRASO® Casing E/FE/KF, with 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request! Also available in V4A for a surcharge!**

#### KRASO® Casing K/FE/KF - electrogalvanised **LG 1**

##### - plastic/true diameter casing/bonding flange

thick-walled true diameter plastic casing with electrogalvanised bonding flange, surrounding approx. 12 cm, according DIN 18533, for concreting, for installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), 2 KRASO® Covers as an installation aid.

ID = InternalDiameter true diameter casing | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Casing K/FE/KF - electrogalvanised						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 • 24 • 25 • 30						
Diameter bonding flange	surrounding 120 mm						
KRASO® Casing K/FE/KF - electrogalvanised -	115 €	148 €	164 €	189 €	216 €	290 €	345 €
Surcharge: per every 10 cm requested	1,30 €	1,40 €	2,10 €	2,30 €	4,70 €	8,20 €	14,10 €

**Scope of supply:** KRASO® Casing K/FE/KF - electrogalvanised -, with 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request!**



## KRASO® Casing Type E/FE - stainless steel/casing true diameter **LG 1**

stainless steel casing for concreting, as a recess for later installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), made of non-corrosive stainless steel V2A, with water pressure-, gas- and odour-tight, surrounding KRASO® 4 Seal and 2 KRASO® Covers as an installation aid

ID = InternalDiameter true diameter casing

| DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type E/FE						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 • 24 • 25 • 30						
KRASO® Type E/FE	146 €	189 €	208 €	240 €	274 €	367 €	437 €
Surcharge: per every 10 cm requested	23 €	28 €	32 €	37 €	42 €	56 €	64 €

**Scope of supply:** KRASO® Casing Type E/FE, 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request! Also available in V4A for a surcharge!**



## VA - Tubular Sleeve **LG 1**

stainless steel tubular sleeve for concreting, as non-water pressure tight recess for later installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), made of non-corrosive stainless steel V2A

ID = InternalDiameter true diameter

Type / Item	VA - Tubular Sleeve						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 • 24 • 25 • 30						
VA - Tubular Sleeve	61 €	78 €	88 €	99 €	114 €	151 €	180 €
Surcharge: per every 10 cm requested	23 €	28 €	32 €	37 €	42 €	56 €	64 €

**Scope of supply:** VA - Tubular Sleeve made of non-corrosive stainless steel V2A with 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request! Also available in V4A for a surcharge!**



## KRASO® Casing Type E/FE/M - stainless steel/casing true diameter/middle flange **LG 1**

stainless steel casing for concreting with middle flange, surrounding approx. 10 cm, as a recess for later installation of pipes and cables using KRASO® Sealing Insert (not included in the delivery), made of non-corrosive stainless steel V2A

ID = InternalDiameter true diameter casing

Type / Item	KRASO® Casing Type E/FE/M						
InternalDiameter ID	80	100	125	150	200	250	300
available standard wall thicknesses in cm	20 • 24 • 25 • 30						
KRASO® Casing Type E/FE/M	146 €	189 €	208 €	240 €	274 €	367 €	437 €
Surcharge: per every 10 cm requested	23 €	28 €	32 €	37 €	42 €	56 €	64 €

**Scope of supply:** KRASO® Casing Type E/FE/M, 2 KRASO® Covers as an installation aid

**Further diameters and wall thicknesses available on request! Also available in V4A for a surcharge!**



### KRASO® Slip-on Sleeve **LG1**

according DIN EN 1401, for installation in waterproof concrete walls for KG/HT pipes to be pushed through, with water pressure tight surrounding **KRASO® 4 Seal**  
 | DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® Slip-on Sleeve							
Diameter DN	110	125	160	200	250	315	400	500
KRASO® Slip-on Sleeve	40 €	46 €	53 €	67 €	142 €	215 €	306 €	573 €

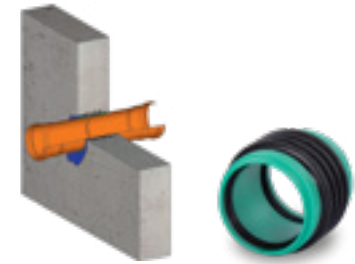
**Scope of supply:** KRASO® Slip-on Sleeve

**On request also available as double sleeve with internal stop!**



### KRASO® Slip-on Sleeve - KG 2000 **LG1**

according DIN EN 14758, for installation in waterproof concrete walls for KG 2000 lines to be pushed through, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**  
 | DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® Slip-on Sleeve - KG 2000							
Diameter DN	110	125	160	200	250	315	400	500
KRASO® Slip-on Sleeve - KG 2000	52 €	60 €	78 €	129 €	209 €	269 €	365 €	691 €

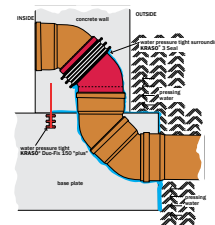
**Scope of supply:** KRASO® Slip-on Sleeve - KG 2000

**On request also available as double sleeve with internal stop!**



### KRASO® 15° | 30° | 45° Bend **LG1**

according DIN EN 1401, for installation in waterproof concrete walls for the connection to KG/HT pipes, with water pressure tight surrounding **KRASO® 4 Seal** and formed plug-in sleeve on one side | DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® 15°   30°   45° Bend							
Diameter DN	110 <sup>1</sup>	125 <sup>1</sup>	160 <sup>1</sup>	200 <sup>1</sup>	250	315	400	500
KRASO® 15°   30°   45° Bend	29 €	34 €	39 €	73 €	124 €	192 €	330 €	721 €

<sup>1</sup> for product-technical reasons partially KRASO® 3 Seal

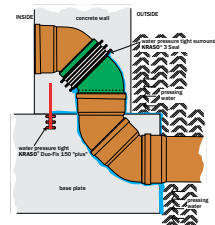
**Scope of supply:** KRASO® Bend

**All KG moulded parts and finishes on request!**



### KRASO® 15° | 30° | 45° Bend - KG 2000 **LG1**

according DIN EN 14758, for installation in waterproof concrete walls for the connection to KG 2000 lines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal** and formed plug-in sleeve on one side  
 | DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® 15°   30°   45° Bend - KG 2000							
Diameter DN	110 <sup>1</sup>	125 <sup>1</sup>	160 <sup>1</sup>	200 <sup>1</sup>	250	315 <sup>2</sup>	400 <sup>2</sup>	500
KRASO® 15°   30°   45° Bend - KG 2000	44 €	55 €	75 €	111 €	255 €	409 €	589 €	1.148 €

<sup>1</sup> for product-technical reasons partially KRASO® 3 Seal

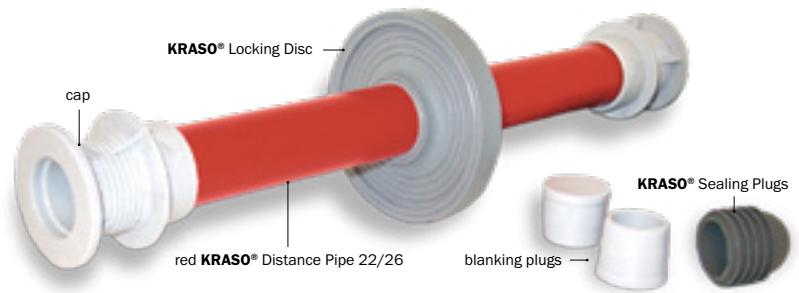
<sup>2</sup> not available as 30° Bend

**Scope of supply:** KRASO® Bend - KG 2000

**Further diameters and finishes in KG 2000 available on request!**



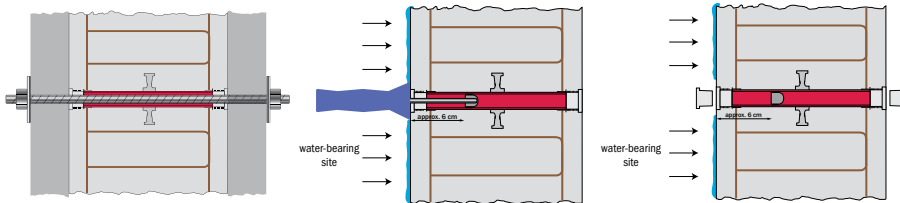
**KRASO® Tie Point DWS - System**  
Here there is an installation video  
(just scan in the QR-Code!)



## KRASO® Tie Point DWS - System

### Simple and quick use, water pressure tight up to 10 bar!

- + **KRASO® DWS - System** - water pressure tight tie point as spacer for formwork of waterproof concrete walls.
- + **Ready-to-use** delivery according to wall thickness - **no assembly on the construction site necessary!**
- + Simple installation - **without time-consuming adhesion of blanking plugs and expensive refinishing!**
- + **10 bar water pressure tightness for the inside and outside** due to the vulcanised locking disc and sealing and blanking plugs for simple locking.
- + **Fireproof up to F 180!**
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



**1. Installation of the tie point**  
Push the red **KRASO® Distance Pipe 22/26** on the anchor rod.

**2. Lock the tie point using the KRASO® Sealing- and Blanking Plugs**  
Clean the cap of any possible dirt! Push the **KRASO® Sealing Plug** using the insertion tool ▶ from the water-bearing site ▶ up to the stop.  
Next, hammer the blanking plug from both sides until it is flush with the wall.

### KRASO® DWS - System - water pressure tight tie point **LG 1**

| DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® DWS - System											
Wall thicknesses in cm	15	17,5	20	24	25	30	35	36,5	40	45	50	60
<b>KRASO® DWS - System</b>	4,30 €	4,40 €	4,40 €	4,50 €	4,50 €	4,60 €	4,70 €	4,70 €	4,80 €	4,90 €	5,00 €	5,30 €

**Package Unit:**  
50 pieces - red **KRASO® Distance Pipe 22/26** with **KRASO® Locking Disc** and mounted caps  
50 pieces - **KRASO® Sealing Plugs**  
100 pieces - blanking plugs

**Every wall thickness available on short term!**

### KRASO® DWS - Accessories **LG 1**



Type / Item	Insertion Tool	Blanking Plugs	KRASO® Sealing Plugs
Package Unit	1 piece	100 pieces	50 pieces
<b>KRASO® DWS - Accessories</b>	12 €	10 €	9 €



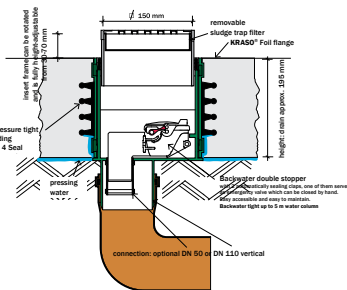
**KRASO® Floor Drain**  
Here there is an installation video  
(just scan in the QR-Code!)



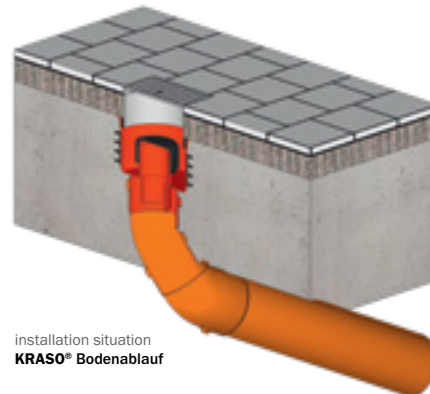
WU	W1-E
1+2	flange

## KRASO® Drains for interior and exterior areas Inside and outside - tight and dry

- + For interior areas, for basements, yards and parking levels:  
**KRASO® Drains for a reliable and water pressure tight drainage of water! Radon-tight!**
- + Walkable and fit for traffic, frost proof and odour-tight, backwater safe and thermally insulated:  
**manifold versions for different needs!**
- + **High-quality components for a secure installation and use:** solid wall material with thermally welded **KRASO® 4 Seal**, plastic or stainless steel grates.
- + Additional accessories as completion for individual needs.
- + **DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E**



construction cross section  
**KRASO® Bodenablauf Typ FS - RS with foil flange**



installation situation  
**KRASO® Bodenablauf**

### KRASO® Floor Drains - according DIN EN 1253



**KRASO®**  
Floor Drain



**KRASO®**  
Floor Drain with  
foil flange



**KRASO®**  
Floor Drain - KG 2000



**KRASO®**  
Floor Drain  
- thermally insulated -

### KRASO® Floor Drains - frost proof/backwater safe



**KRASO®**  
Floor Drain Type FS  
frost proof



**KRASO®**  
Floor Drain Type FS - KG 2000  
with foil flange  
frost proof



**KRASO®**  
Floor Drain Type FS - RS  
frost proof -  
backwater safe -



**KRASO®**  
Floor Drain Type FS - RS  
with foil flange  
frost proof - backwater safe -



## KRASO® Floor Drain **LG 1**

according DIN EN 1253 - for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1,79 l/s, with water pressure tight surrounding **KRASO® 4 Seal**.

Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm).

For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**. |

DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E



Type / Item	KRASO® Floor Drain • KRASO® Floor Drain with foil flange
Drainage capacity	1,79 l/s
Height	drain approx. 110 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Plastic grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	KG/HT - pipes either DN 50 or DN 110 vertical
<b>KRASO® Floor Drain</b>	<b>89 €</b>
<b>KRASO® Floor Drain with foil flange</b>	<b>130 €</b>
<b>KRASO® PU 50</b>	<b>21 €</b>

**Scope of supply:** **KRASO® Floor Drain**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover • **KRASO® Floor Drain with foil flange**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover



## KRASO® KRASO® Floor Drain - KG 2000 **LG 1**

according DIN EN 1253 - for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1,79 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**.

| DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E



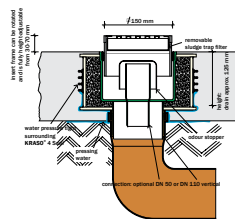
Type / Item	KRASO® Floor Drain - KG 2000 • KRASO® Floor Drain - KG 2000 with foil flange
Drainage capacity	1,79 l/s
Height	drain approx. 110 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Plastic grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	KG 2000/HT pipes either DN 50 or DN 110 vertical
<b>KRASO® Floor Drain - KG 2000</b>	<b>113 €</b>
<b>KRASO® Floor Drain - KG 2000 with foil flange</b>	<b>152 €</b>
<b>KRASO® PU 50</b>	<b>21 €</b>

**Scope of supply:** **KRASO® Floor Drain - KG 2000**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover • **KRASO® Floor Drain - KG 2000 with foil flange**, plastic grate class K3, odour stopper, sludge trap filter, building period protective cover



WU  
1+2

W1-E  
flange



### KRASO® Floor Drain - thermally insulated - **LG 1**

according to DIN EN 1253 - for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1,79 l/s, with water pressure tight surrounding **KRASO® 4 Seal** | **DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E**

Type / Item	KRASO® Floor Drain - thermally insulated -
Drainage capacity	1,79 l/s
Height	drain approx. 110 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Stainless steel grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	either KG/HT pipes or KG 2000 - pipes DN 50 or DN 110 vertical
<b>KRASO® Floor Drain - thermally insulated -</b>	<b>315 €</b>

**Scope of supply:** KRASO® Floor Drain - thermally insulated -, screwable stainless steel grate class K3, with odour stopper and sludge trap filter, building period protective cover



WU  
1+2

W1-E  
flange

### KRASO® Floor Drain Type FS - frost proof **LG 1**

for the installation in outdoor areas without traffic, for the drainage of grey water, drainage capacity: 1,67 l/s, with water pressure tight surrounding **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**. | **DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E**



Type / Item	KRASO® Type FS • KRASO® Type FS with foil flange
Drainage capacity	1,67 l/s
Height	drain approx. 110 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Stainless steel grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	KG/HT - pipes DN 110 vertical
<b>KRASO® Type FS</b>	<b>186 €</b>
<b>KRASO® Type FS with foil flange</b>	<b>228 €</b>
<b>KRASO® PU 50</b>	<b>21 €</b>

**Scope of supply:** KRASO® Floor Drain Type FS, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover • **KRASO® Floor Drain Type FS with foil flange**, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover



## KRASO® Floor Drain Type FS - KG 2000 - frost proof **LG 1**

for the installation in outdoor areas without traffic, for the drainage of grey water, drainage capacity: 1,67 l/s, with water pressure tight surrounding, thermally welded KRASO® 4 Seal. Also available with KRASO® Foil Flange, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant KRASO® PU 50. | DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E

Type / Item	KRASO® Type FS - KG 2000 • KRASO® Type FS KG 2000 with foil flange
Drainage capacity	1,67 l/s
Height	drain approx. 110 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Stainless steel grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	KG 2000/HT pipes DN 110 vertical
KRASO® Type FS - KG 2000	208 €
KRASO® Type FS - KG 2000 with foil flange	251 €
KRASO® PU 50	21 €

**Scope of supply:** KRASO® Floor Drain Type FS - KG 2000, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover • KRASO® Floor Drain Type FS - KG 2000 with foil flange, screwable stainless steel grate class K3, frost proof odour barrier, sludge trap filter and building period protective cover



## KRASO® Floor Drain - Accessories **LG 1**



Type / Item	Insert frame extension	Insert frame extension with foil flange	Insert frame extension - fit for traffic up to 1,5 t
Item description	height > 140 mm	height > 140 mm foil flange (d = approx. 50 cm)	can be rotated and is height-adjustable from 15 - 120 mm, all visible parts are made of stainless steel, stainless steel grate massive, screwed, 150 x 150 mm, fit for traffic up to 1,5 t, L 15
KRASO® Floor Drain - Accessories	21 €	61 €	180 €



Type / Item	Insert frame	Stainless steel grate	Stainless steel grate - screwable -
Item description	all visible parts are made of stainless steel incl. stainless steel grate	class K3	incl. insert frame with threaded sleeves
KRASO® Floor Drain - Accessories	158 €	36 €	63 €



Type / Item	Raising element for thin-bed mortar	Spare parts kit	Floor Drain insert frame with building period protective cover
Item description	screed structure height from 25 - 130 mm	consisting of: backflow seal, odour stopper, sludge trap filter, insert frame and plastic grate	suitable for industry floors
KRASO® Floor Drain - Accessories	114 €	49 €	107 €



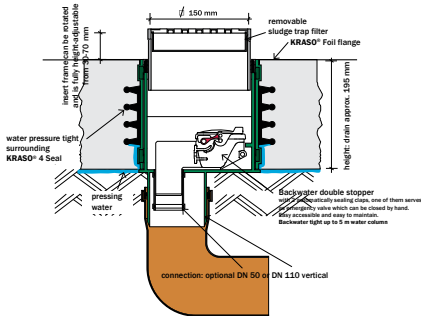


WU	W1-E
1+2	flange



## KRASO® Floor Drain Type FS - RS frost proof - backwater safe

- + For installation in outdoor areas without traffic, for the drainage of grey water, drainage capacity: 0,4 l/s.
- + All year use due to its frost proof backwater double stopper.
- + KG 2000: high impact strength and persistence.
- + Screwable stainless steel grate: class K3 up to max. 300 kg.
- + DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E



construction cross section

**KRASO® Floor Drain Type FS - RS**  
- optional with **KRASO® Foil flange**



**KRASO® Floor Drain Type FS - RS**

with screwable stainless steel grate: class K3, frost proof backwater double stopper, 2 automatically sealing claps, one of them serves as emergency valve which can be closed by hand, sludge trap filter and building period protective cover

### KRASO® Floor Drain Type FS - RS - frost proof - backwater safe **LG 1**

for the installation in outdoor areas without traffic, for the drainage of grey water, drainage capacity: 0,4 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**.

| DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E



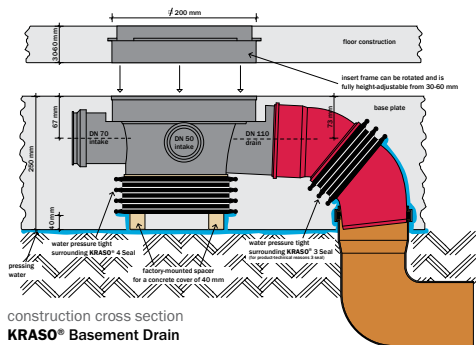
Type / Item	KRASO® Type FS - RS • KRASO® Type FS - RS with foil flange
Drainage capacity	0,4 l/s
Height	drain approx. 195 mm
Insert frame	from 30 - 70 mm can be rotated and is fully height-adjustable
Stainless steel grate	class K3 (withstands loads of up to 300 kg), 15 x 15 cm
Connection	KG/HT - pipes either DN 50 or DN 110 vertical
<b>KRASO® Type FS - RS</b>	<b>338 €</b>
<b>KRASO® Type FS - RS with foil flange</b>	<b>374 €</b>
<b>KRASO® PU 50</b>	<b>21 €</b>

**Scope of supply:** **KRASO® Floor Drain Type FS - RS**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically sealing claps, one of them serves as emergency valve which can be closed by hand, sludge trap filter and building period protective cover • **KRASO® Floor Drain Type FS - RS with KRASO® Foil Flange**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically sealing claps, one of them serves as emergency valve which can be closed by hand, sludge trap filter and building period protective cover



## KRASO® Basement Drain For a dry basement

- + KRASO® Basement Drain with integrated removable backwater and odour stopper!
- + For the connection of up to 3 intake pipes!
- + Drainage capacity: 1,8 l per second!
- + With height-adjustable insert frame from 30 to 60 mm.
- + Either with plastic or stainless steel grate.
- + With water pressure tight surrounding, thermally welded KRASO® 4 Seal: water pressure tight up to 10 bar!
- + Also available as KG 2000: made of polypropylene (PP), mineral-filled, smooth walls, long-lasting.
- + DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E



KRASO® Basement Drain with foil flange

### KRASO® Basement Drain **LG1**

for installation in areas without traffic and for the connection of 3 intake pipes, for the drainage of grey water, drainage capacity: 1,8 l/s, with water pressure tight surrounding, thermally welded KRASO® 4 Seal, lateral KRASO® Drainage Bows DN 110 with KRASO® 3 Seal. Also available with KRASO® Foil Flange, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant KRASO® PU 50.

| DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E

Type / Item	KRASO® Basement Drain with plastic grate	KRASO® Basement Drain with stainless steel grate
Drainage capacity	1,8 l/s	
Height	drain approx. 250 mm	
Insert frame	from 30 - 60 mm can be rotated and is fully height-adjustable	
Slot grate	class K3, 20 x 20 cm, plastic (black)	class K3, 20 x 20 cm, stainless steel
Connection	3 intake pipes: 2 x DN 50, 1 x DN 70, either for KG, HT or KG 2000 - pipes	
KRASO® Basement Drain	431 €	545 €
KRASO® Basement Drain with foil flange	560 €	673 €
KRASO® PU 50	21 €	

**Scope of supply:** KRASO® Basement Drain with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame which can be telescopically rotated and is height-adjustable from 30 to 60 mm, 2 intakes DN 50, 1 intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with black plastic or stainless steel slot grate 20 x 20 cm, class K3 • KRASO® Basement Drain with foil flange, with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame which can be telescopically rotated and is height-adjustable from 30 to 60 mm, 2 intakes DN 50, 1 intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with black plastic or stainless steel slot grate 20 x 20 cm, class K3



WU
1+2

W1-E
flange



**KRASO® Basement Drain - KG 2000**  
with stainless steel grate



**KRASO® Basement Drain - KG 2000**  
with foil flange

## KRASO® Basement Drain - KG 2000 **LG 1**

for installation in areas without traffic and for the connection of 3 intake pipes, for the drainage of grey water, drainage capacity: 1,8 l/s, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, lateral **KRASO® Drainage Bows** DN 110 with **KRASO® 3 Seal**. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange we recommend our adhesive and sealant **KRASO® PU 50**.  
| DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E

Type / Item	KRASO® Basement Drain - KG 2000 with plastic grate	KRASO® Basement Drain - KG 2000 with stainless steel grate
Drainage capacity	1,8 l/s	
Height	drain approx. 250 mm	
Insert frame	from 30 - 60 mm can be rotated and is fully height-adjustable	
Slot grate	class K3, 20 x 20 cm, plastic (black)	class K3, 20 x 20 cm, stainless steel
Connection	3 intake pipes: 2 x DN 50, 1 x DN 70, either for KG, HT or KG 2000 - pipes	
<b>KRASO® Basement Drain - KG 2000</b>	<b>539 €</b>	<b>682 €</b>
<b>KRASO® Basement Drain - KG 2000 with foil flange</b>	<b>668 €</b>	<b>781 €</b>
<b>KRASO® PU 50</b>	<b>21 €</b>	

**Scope of supply:** **KRASO® Basement Drain - KG 2000** with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame which can be telescopically rotated and is height-adjustable from 30 to 60 mm, 2 intakes DN 50, 1 intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with black plastic or stainless steel slot grate 20 x 20 cm, class K3 • **KRASO® Basement Drain - KG 2000** with foil flange with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame which can be telescopically rotated and is height-adjustable from 30 to 60 mm, 2 intakes DN 50, 1 intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with black plastic or stainless steel slot grate 20 x 20 cm, class K3



## KRASO® Drains - Accessories **LG 1**

Type / Item	Insert frame extension	Insert frame extension
Item description	for <b>KRASO® Basement Drain</b> , <b>KRASO® Yard/Parking Level Drain Type 12,5</b> , is height-adjustable from 46 - 130 mm, also suitable for <b>KRASO® Yard/Parking Level Drain Type 1,5 with stainless steel grate</b>	for <b>KRASO® Yard/Parking Level Drain Type 1,5<sup>1</sup></b> , is height-adjustable from min. 25 - 130 mm
<b>KRASO® Drains - Accessories</b>	<b>30 €</b>	<b>99 €</b>

<sup>1</sup> not suitable for **KRASO® Yard/Parking Level Drain Type 1,5** with stainless steel grate



## KRASO® PU 50 **LG 1**

high-quality, permanently elastic and strong PU-sealant, also suitable on moist surface, recommended for all products with **KRASO® Foil Flange**, colour black



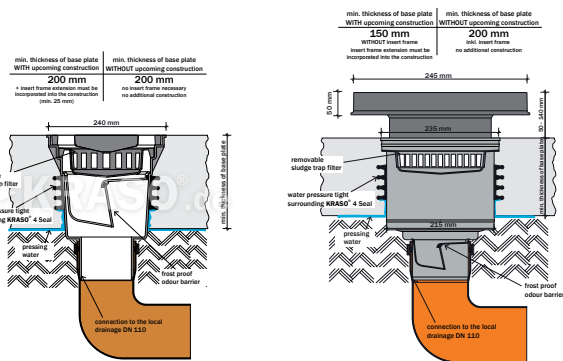
Type / Item	PU sealant
<b>KRASO® PU 50</b>	<b>21 €</b>



## KRASO® Yard/Parking Level Drain

The high-performance drain for e.g. underground car parks

- + KRASO® Yard/Parking Level Drain with 4,3 l/s drainage capacity according DIN EN 1253.
- + With frost proof odour barrier and removable sand trap basket.
- + Load class A up to 1,5 t or load class B up to 12,5 t.
- + Connection either for KG/HT or KG 2000 pipes DN 110.
- + With water pressure tight surrounding, thermally welded KRASO® 4 Seal: water pressure tight up to 10 bar!



construction cross section  
KRASO® Yard/Parking Level Drain Type 1,5

construction cross section  
KRASO® Yard/Parking Level Drain Type 12,5



KRASO® Yard/Parking Level Drain Type 1,5

KRASO® Yard/Parking Level Drain Type 1,5 with trowel flange with dovetail groove

KRASO® Yard/Parking Level Drain Type 1,5 with stainless steel grate

KRASO® Yard/Parking Level Drain Type 1,5 with stainless steel grate with foil flange

KRASO® Yard/Parking Level Drain Type 12,5

KRASO® Yard/Parking Level Drain Type 12,5 with stainless steel grate

### KRASO® Yard/Parking Level Drain **LG 1**

for installation in areas with traffic, drainage capacity: 4,3 l/s according DIN EN 1253, with water pressure tight surrounding, thermally welded KRASO® 4 Seal

Type / Item	KRASO® Yard/Parking Level Drain Type 1,5	KRASO® Yard/Parking Level Drain Type 12,5
Drainage capacity	4,3 l/s	
Load class	load class A 15	load class B up to 12,5 t
Base plate thickness	min. 20 cm	min. 15 or 20 cm
Connection	either for KG, HT or KG 2000 pipes DN 110	
KRASO® Yard/Parking Level Drain	282 €	511 €
KRASO® Yard/Parking Level Drain with trowel flange with dovetail groove	471 €	-
KRASO® Yard/Parking Level Drain with stainless steel grate	444 €	-
KRASO® Yard/Parking Level Drain with stainless steel grate with foil flange	632 €	-
KRASO® Yard/Parking Level Drain with stainless steel grate	-	708 €

**Scope of supply:** KRASO® Yard/Parking Level Drain Type 1,5 with frost proof odour barrier, removable sand trap basket, with slot grate made from cast app. 24 x 24 cm, load class A up to 1,5 t, vertical discharge • KRASO® Yard/Parking Level Drain Type 12,5 with water pressure tight surrounding KRASO® 4 Seal, with frost proof odour barrier, removable sand trap basket, with support frame made from eco-cast, 26 x 26 cm, with slot grate, load class B up to 12,5 t, vertical discharge



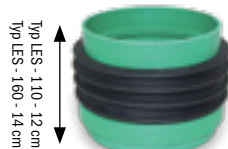
# KRASO® Type LES

## Light shaft drainage system for concrete shafts

- + Flexible drainage system - for precast factories and in situ concrete.
- + Manifold components for individual demands.
- + Also available for retrofit installation.
- + DafStB waterproof concrete guideline: Stress class 1 + 2



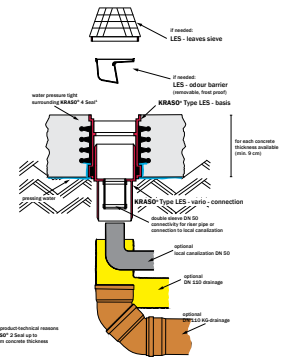
**KRASO® Type LES DN 160 - basis for precast factories**  
with water pressure tight surrounding, thermally welded **KRASO® 2 Seal**. For later installation of LES - vario - connection, LES - leaves sieve and LES - odour stopper



**KRASO® Type LES DN 160 - basis for in situ concrete** with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**. For later installation of LES - vario - connection, LES - leaves sieve and LES - odour stopper



**KRASO® Type LES DN 160 - vario connection** connection either to drainage DN 50 / DN 110 or to drainage DN 110. Connection possible to LES - backwater double stopper



construction cross section  
**KRASO® LES - 110**



**LES DN 160 - backwater double stopper** with 2 automatically sealing claps, one of them serves as emergency valve which can be closed by hand. Easy accessible and easy to maintain. Can be retrofitted by LES - vario - connection. Drainage capacity: 0,4 l/s Backwater tight up to 5 m water column



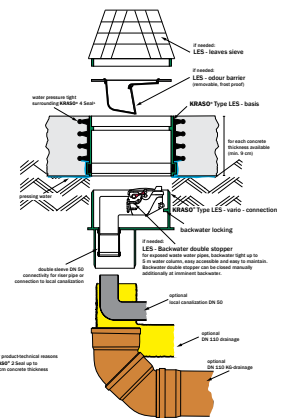
**LES DN 160 - odour barrier** removable, frost proof



**LES DN 110 - backwater stopper**



**LES DN 110 and DN 160 - leaves sieve**



construction cross section  
**KRASO® LES - 160**

## KRASO® Type LES - light shaft drainage system **LG 1**

for concrete shafts | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type LES - 110	KRASO® Type LES - 160
<b>KRASO® Type LES - basis for precast factories</b>	47 €	53 €
<b>KRASO® Type LES - basis for in situ concrete</b>	66 €	78 €
<b>KRASO® Type LES - vario - connection</b>	45 €	53 €
<b>LES - odour barrier</b>	36 €	36 €
<b>LES - backwater stopper</b>	125 €	-
<b>LES - backwater double stopper</b>	-	181 €
<b>LES - leaves sieve</b>	36 €	38 €

Also available for retrospective installation !

The alternative to  
fixed-loose flanges!



## KRASO® Flange Pipes

### Simple and effective integration into bituminous sealing

- + For new building and rehabilitation - according DIN 18533 W1-E and W2.1-E.
- + **Simple and effective integration into bituminous sealing** („black tank“): bitumen thick coating (e.g. KMB) and sheeting, concrete and brick wall.
- + Water pressure tight up to 1,5 bar - MPA-tested!
- + Made of dimensionally and pressure stable solid wall material with low abrasion!  
Easy to install at low temperatures.
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000).



KRASO® Flange Pipe Type KG



KRASO® Flange Pipe Type KG 2000



KRASO® Flange Pipe Type FE



KRASO® Type KMB



KRASO® Type KMB - KG 2000



KRASO® Type ÜSF



### KRASO® Flange Pipe Type KG **LG 1**

for retrofit installation, for connection to KG/HT lines, made of high-quality, dimensionally and pressure stable solid wall material, with formed plug-in sleeve on one side and KRASO® Foil Flange, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant KRASO® PU 50. | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Flange Pipe Type KG							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length in cm	50							
KRASO® Flange Pipe Type KG	47 €	49 €	62 €	78 €	154 €	230 €	293 €	450 €
KRASO® PU 50	21 €							

**Scope of supply:** KRASO® Flange Pipe Type KG

**Further diameters and lengths from 50 cm available on request!**



### KRASO® Flange Pipe Type KG 2000 **LG 1**

for retrofit installation, for connection to KG 2000 lines, made of high-quality, dimensionally and pressure stable solid wall material, with formed plug-in sleeve on one side and KRASO® Foil Flange, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant KRASO® PU 50. | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Flange Pipe Type KG 2000							
Diameter DN	110	125	160	200	250	315	400	500
Delivery length in cm	50							
KRASO® Flange Pipe Type KG 2000	62 €	79 €	87 €	122 €	279 €	389 €	499 €	652 €
KRASO® PU 50	21 €							

**Scope of supply:** KRASO® Flange Pipe Type KG 2000

**Further diameters and lengths from 50 cm available on request!**



### KRASO® Flange Pipe Type FE **LG 1**

thick-walled true diameter plastic casing for retrofit installation of pipes and cables using KRASO® Sealing Insert (not included in the delivery), with KRASO® Foil Flange, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant KRASO® PU 50.  
ID = Internal Diameter Flange Pipe Type FE  
| DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Flange Pipe Type FE					
Internal Diameter ID	100	125	150	200	250	300
External diameter in mm	110	140	160	210	263	314
Delivery length in cm	50					
KRASO® Flange Pipe Type FE	45 €	49 €	56 €	80 €	113 €	134 €
Surcharge: per every 10 cm requested	1,40 €	2,20 €	2,40 €	4,70 €	8,30 €	14,10 €
KRASO® PU 50	21 €					

**Scope of supply:** KRASO® Flange Pipe Type FE

**Further diameters and lengths from 50 cm available on request!**



### KRASO® Type KMB **LG1**

plug-in flange, for retrofit sealing of KG/HT pipes using **KRASO®** Foil Flange with bitumen thick coating e.g. KMB, with formed plug-in sleeve on one side and **KRASO®** Foil Flange, oil- and bitumen resistant, surrounding approx. 6 cm. For the integration of the foil flange we recommend our adhesive and sealant **KRASO®** PU 50. | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Type KMB			
Diameter DN	110	125	160	200
Plug-in length in cm	7	7,5	8	9
KRASO® Type KMB	49 €	52 €	63 €	80 €
KRASO® PU 50	21 €			

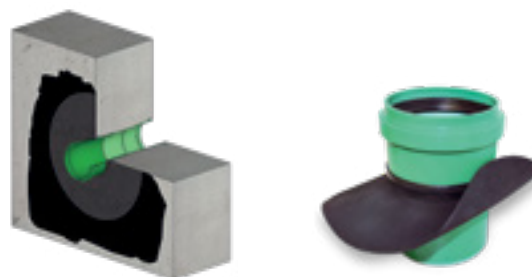
**Scope of supply:** KRASO® Type KMB

**Further diameters available on request!**



### KRASO® Type KMB - KG 2000 **LG1**

plug-in flange, for retrofit sealing of KG 2000 - pipes using **KRASO®** Foil Flange with bitumen thick coating e.g. KMB, with formed plug-in sleeve on one side and **KRASO®** Foil Flange, oil- and bitumen resistant, surrounding approx. 6 cm. For the integration of the foil flange we recommend our adhesive and sealant **KRASO®** PU 50. | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Type KMB - KG 2000			
Diameter DN	110	125	160	200
Plug-in length in cm	7	7,5	8	9
KRASO® Type KMB - KG 2000	60 €	70 €	85 €	122 €
KRASO® PU 50	21 €			

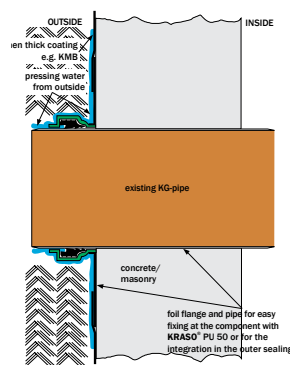
**Scope of supply:** KRASO® Type KMB - KG 2000

**Further diameters available on request!**



### KRASO® Type ÜSF - slip-on flange **LG1**

for retrofit sealing of installed KG, HT or KG 2000 - pipes, using **KRASO®** Foil Flange with bitumen thick coating e.g. KMB, with **KRASO®** Foil Flange, oil- and bitumen resistant, surrounding approx. 15 cm. For the integration of the foil flange we recommend our adhesive and sealant **KRASO®** PU 50. | DIN 18533 W1 -E and W2.1 -E



Type / Item	KRASO® Type ÜSF					
Diameter DN	110	125	160	200	250	315
KRASO® Type ÜSF	87 €	95 €	113 €	208 €	307 €	411 €
KRASO® PU 50	21 €					

**Scope of supply:** KRASO® Type ÜSF

**Further diameters available on request!**