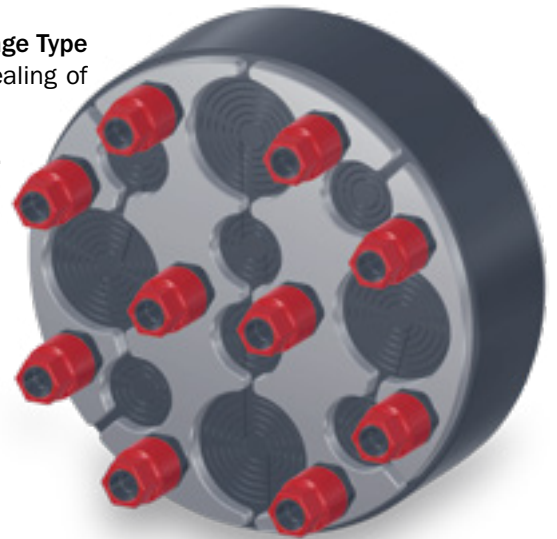
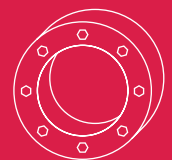


- + Sealing inserts for the **use in either core hole or casing** for the installation of pipes or cables.
- + **KRASO® Sealing Insert quality:** simply just better! Welded-on studs, even pressure distribution, 5 mm thick clamping plates, non-corrosive stainless steel, specially developed rubber mixture.
- + Torque Control Nut **KRASO® DKM: integrated torque limiter - no torque wrench required!**
- + **FHRK Quality:** Tested according to FHRK test specification GE 101.
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + **MPA-tested:** depending on the type **water pressure tight up to 10 bar!**
- + **MPA-tested:** gas- and odour-tight - **high-quality in terms of TA-Air! Radon-tight!**
- + **KRASO® Sealing Inserts Universal DD, Type GR and Type TD-X: tested gas-tight according DIN EN 13611 (chapter 7.2).**
- + For **single or multiple installations, for new buildings or rehabilitation, as split or non-split version.**
- + Use the **KRASO® Sealing Insert Configurator:** available as app or on KRASO.de/en.
- + For buildings with exterior sealing: the **KRASO® Foil Clamping Flange Type FKF** is the revolution in the integration of media lines into the sealing of larger areas.
- + Specially for rehabilitation: **KRASO® Plastic Flange Plate Type KFP.**



Sealing Inserts



Sealing Insert Universal DD	p. 11
Sealing Insert Type ED + DD + VD	p. 13
Sealing Insert Type SD	p. 14
Sealing Insert Universal Multiple - split -	p. 15
Sealing Insert Type GR	p. 16
Sealing Insert Type TD-X	p. 17
Sealing Insert Type FIX	p. 18
Sealing Insert Type Blind ED + DD + VD	p. 18
Foil Clamping Flange Type FKF	from p. 20
Plastic Flange Plate Type KFP	from p. 23
Plastic Flange Plate Type KFP	p. 26
Fixed-Loose Flange	from p. 27



Torque Control Nut
KRASO® DKM



KRASO® Sealing Inserts:
stud welding



KRASO® Sealing Inserts

Simply just better

- + For Core Drillings or Casings.
- + **KRASO® Sealing Insert quality: 5 mm thick clamping plates** made of non-corrosive stainless steel V2A, a specially developed rubber mixture with even better sealing characteristics, **welded-on studs** instead of through bolts, more studs for a **more even pressure distribution**.
- + Torque Control Nut **KRASO® DKM**: integrated torque limiter - **no torque wrench required!**
- + **Tested gas-tight according DIN EN 13611 (chapter 7.2)** proven by the DVGW research centre at the Engler-Bunte-Institute (EBI) of the Institute for Technology in Karlsruhe!
- + **MPA-tested: protects reliable against pressurised water up to 10 bar!**
- + **Gas- and odour-tight** - high-quality in terms of TA-Air!
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + **Tested according to FHRK test specification GE 101!**



KRASO® Sealing Insert Universal DD

for installation of pipes or cables, double sealing against pressing water up to 1,5 bar, non-corrosive stainless steel V2A, 40 mm seal. Can also be used as blind plug for feed-through of pipes or cables




KRASO® Sealing Insert Type ED + DD + VD
for installation of pipes or cables, non-corrosive stainless steel V2A
KRASO® Type ED: single sealing, against pressing water up to 1,0 bar, 20 mm seal
KRASO® Type DD: double sealing, against pressing water up to 3,0 bar, 40 mm seal
KRASO® Type VD: quadruple sealing, against pressing water up to 8,0 bar, 80 mm seal



KRASO® Sealing Insert Type Blind ED + DD + VD
blind plug, for pressing water, non-corrosive stainless steel V2A
KRASO® Type Blind ED: single sealing, against pressing water up to 1,0 bar, 20 mm seal
KRASO® Type Blind DD: double sealing, against pressing water up to 3,0 bar, 40 mm seal
KRASO® Type Blind VD: quadruple sealing, against pressing water up to 8,0 bar, 80 mm seal

This masters more!



KRASO® DKM Torque Control Nut

- + Total control over torque and contact pressure!
- + Audible and tactile signal indicates the ideal torque!
- + Installation has never been so easy: a **torque wrench is not required!**
- + Can be loosened and retightened with automatic torque limitation!
- + **Over-twisting and fretting: impossible!**



KRASO® Sealing Insert Type GR

for installation of ribbed or corrugated media pipes, against pressing water up to 1,0 bar with 40 mm (DD), or up to 2,0 bar with 80 mm (VD) specially soft seal and central pressure distribution plate for an evenly distribution of pressure with corrugated media pipes, prevents damages or leaks, non-corrosive stainless steel V2A



KRASO® Sealing Insert Universal Multiple - split
Stepless ring technology: Can be used for any external diameter of media lines/cables - even with several penetrations - split design



KRASO® Sealing Insert Type SD
the individual and custom-made solution for your sealing problem! Generally ready for dispatch within 24 hours! 30/60 mm seal, against pressing water up to 2,5 bar / 5,0 bar, non-corrosive stainless steel V2A



KRASO® Sealing Insert Type TD-X
the trio seal of a superior class! Triple seal with 60 mm seal (3 x 20 mm), with two central circular pressure disks, against pressing water up to 10,0 bar, non-corrosive stainless steel V2A

One for all: water,
radon- and gas-tight



KRASO® Sealing Insert Universal DD
Here there is an installation video
(just scan in the QR-Code!)

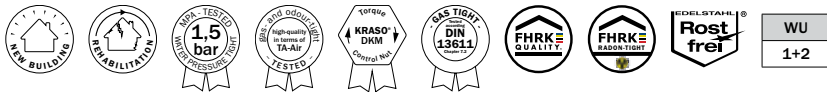


KRASO® Sealing Insert Universal DD

Simple, tight, universal use

- + For Core Drillings or Casings.
- + **Onion ring technology:** universal use for various external diameters of media pipes or cables!
- + **KRASO® Sealing Insert quality:** non-corrosive stainless steel V2A, high-quality rubber seal 40 mm, welded-on studs instead of through bolts.
- + Torque Control Nut **KRASO® DKM:** integrated torque limiter - no torque wrench required!
- + **MPA-tested:** protects reliable against pressurised water up to 1,5 bar!
- + **Gas- and odour-tight** - high-quality in terms of TA-Air!
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + Tested according to FHRK test specification GE 101!
- + **DafStB waterproof concrete guideline:** Stress class 1 + 2





KRASO® Sealing Insert Universal DD **LG 1**

for installation of pipes or cables, double sealing against pressing water up to 1,5 bar, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A, 40 mm seal. Can also be used as blind plug for feed-through of pipes or cables (except **KRASO® Universal 250 DD** and **Universal 250 DD/T**) | **DafStB waterproof concrete guideline: Stress class 1 + 2**



Type / Item	KRASO® Universal DD					
Core hole diameter or Casing in mm	Universal 80 DD	Universal 100 DD	Universal 100 DD/T <small>(split design for retrofit installation)</small>	Universal 110 DD	Universal 110 DD/T <small>(split design for retrofit installation)</small>	Universal 150 DD
A sealing insert for all pipes or cables listed in the table on the right (in mm)	steplless onion ring technology: 18 - 43 mm or blind	steplless onion ring technology: 18 - 65 mm or blind	steplless onion ring technology: 18 - 65 mm or blind	steplless onion ring technology: 18 - 75 mm or blind	steplless onion ring technology: 18 - 75 mm or blind	110 DN 110 KG-pipe, DN 110 SML-pipe
						90 DN 80 steel pipe, PE-pipe
						75 DN 70 HT-pipe
						blind
KRASO® Universal DD	52 €	56 €	62 €	61 €	67 €	84 €



Type / Item	KRASO® Universal DD					
Core hole diameter or Casing in mm	Universal 150 DD/T <small>(split design for retrofit installation)</small>	Universal 160 DD/T <small>(split design for retrofit installation)</small>	Universal 200 DD	Universal 200 DD/T <small>(split design for retrofit installation)</small>	Universal 250 DD	Universal 250 DD/T <small>(split design for retrofit installation)</small>
A sealing insert for all pipes or cables listed in the table on the right (in mm)	110 DN 110 KG-pipe, DN 110 SML-pipe	110 DN 110 KG-pipe, DN 110 SML-pipe	160 DN 160 KG-pipe, DN 160 SML-pipe	160 DN 160 KG-pipe, DN 160 SML-pipe	210 DN 200 SML-pipe	210 DN 200 SML-pipe
	90 DN 80 steel pipe, PE-pipe	90 DN 80 steel pipe, PE-pipe	135 DN 125 SML-pipe	135 DN 125 SML-pipe	200 DN 200 KG-pipe, DN 200 KG 2000	200 DN 200 KG-pipe, DN 200 KG 2000
	75 DN 70 HT-pipe	75 DN 70 HT-pipe	125 DN 125 KG-pipe	125 DN 125 KG-pipe	180 DN 170 PE-pipe	180 DN 170 PE-pipe
	blind	blind	110 DN 110 KG-pipe, DN 110 SML-pipe	110 DN 110 KG-pipe, DN 110 SML-pipe	170 steel/cast pipe	170 steel/cast pipe
		blind	blind	160 DN 160 KG-pipe, DN 160 SML-pipe	160 DN 160 KG-pipe, DN 160 SML-pipe	
KRASO® Universal DD	96 €	106 €	113 €	124 €	144 €	158 €

Scope of supply: KRASO® Universal DD

KRASO® Sealing Insert Universal DD/M
installation situation



KRASO® Sealing Insert Universal DD/M **LG 1**

for simultaneous installation of up to 5 pipes or cables, double sealing against pressing water up to 1,5 bar, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A, 40 mm seal. Can also be used as blind plug for feed-through of pipes or cables | **DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Universal DD/M
Core hole diameter or Casing in mm	100
A sealing insert for all pipes or cables listed in the table on the right (in mm)	1 x 8 - 10 mm or blind
	1 x 11 - 13 mm or blind
	1 x 14 - 16 mm or blind
	1 x 17 - 19 mm or blind
	and 1 x steplless onion ring technology: 20 - 35 mm or blind
KRASO® Universal DD/M	72 €

Scope of supply: KRASO® Universal DD/M



KRASO® Sealing Insert Type ED + DD + VD
Here there is an installation video
(just scan in the QR-Code!)



KRASO® Sealing Insert Type ED + DD + VD **LG 1**

for installation of pipes, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A, single sealing, against pressing water up to 1,0 bar, 20 mm seal (**KRASO® Type ED**, **KRASO® Type ED/T**), double sealing, against pressing water up to 3,0 bar, 40 mm seal (**KRASO® Type DD**, **KRASO® Type DD/T**), quadruple sealing, against pressing water up to 8,0 bar, 80 mm seal (**KRASO® Type VD**)
| DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type ED • KRASO® Type DD • KRASO® Type VD • KRASO® Type ED - split - • KRASO® Type DD - split -									
Core hole diameter or Casing in mm (from - to)	80 (79 - 83)	100 (99 - 103)	125 (124 - 128)	150 (149 - 153)	200 (198 - 203)	250 (248 - 253)	300 (298 - 303)	350 (348 - 353)	400 (398 - 403)	500 (497 - 503)
media lines (from - to)	25 (20 - 26)	32 (29 - 35)	63 (58 - 64)	75 (70 - 76)	110 (105 - 111)	160 (156 - 162)	200 (196 - 202)	200 (196 - 202)	273 (269 - 275)	400 (397 - 402)
	32 (29 - 35)	43 (38 - 44)	75 (72 - 78)	80 (75 - 81)	114 (113 - 119)	170 (165 - 171)	210 (206 - 212)	210 (206 - 212)	280 (276 - 282)	429 (426 - 431)
	43 (38 - 44)	50 (45 - 51)	80 (75 - 81)	90 (85 - 91)	125 (120 - 126)	180 (176 - 182)	219 (215 - 221)	219 (215 - 221)	315 (311 - 317)	450 (447 - 452)
		63 (58 - 64)		110 (105 - 111)	135 (130 - 136)	200 (196 - 202)	225 (221 - 227)	225 (221 - 227)	326 (322 - 328)	
					140 (135 - 141)	210 (206 - 212)	250 (246 - 252)	250 (246 - 252)		
					160 (155 - 161)			273 (269 - 275)		
								280 (276 - 282)		
KRASO® Type ED (20 mm)	51 €	56 €	69 €	77 €	106 €	125 €	164 €	178 €	192 €	276 €
KRASO® Type ED/T (20 mm - split design for retrofit installation)	59 €	64 €	79 €	89 €	122 €	144 €	189 €	205 €	221 €	317 €
KRASO® Type DD (40 mm)	61 €	70 €	86 €	102 €	128 €	149 €	216 €	257 €	298 €	374 €
KRASO® Type DD/T (40 mm - split design for retrofit installation)	70 €	81 €	99 €	117 €	147 €	171 €	248 €	296 €	343 €	430 €
KRASO® Typ VD (80 mm)	76 €	88 €	108 €	128 €	160 €	186 €	270 €	321 €	373 €	468 €

Scope of supply: **KRASO® Type ED**, **KRASO® Type ED/T**, **KRASO® Type DD**, **KRASO® Type DD/T** or **KRASO® Type VD**

Other diameters available as special sealing insert! All sealing inserts available in V4A for an additional charge!



KRASO® Sealing Insert Type SD
Here there is an installation video
(just scan in the QR-Code!)



Generally ready for
dispatch within 24 hours!



KRASO® Sealing Insert Type SD

A type for special situations

- + For Core Drillings or Casings.
- + Whenever it gets complicated: this is the individual and custom-made solution for your sealing problem!
With large flange or split!
- + **KRASO® Sealing Insert quality:** 5 mm thick clamping plates made of non-corrosive stainless steel V2A, 30 mm/60 mm seal made of specially developed rubber mixture, welded-on studs instead of through bolts.
- + Torque Control Nut **KRASO® DKM:** integrated torque limiter - no torque wrench required!
- + **MPA-tested:** protects reliable against pressurised water up to 2,5 bar / 5 bar!
- + **Gas and odour tight** – High-quality in terms of TA-Air!
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + **Tested according to FHRK test specification GE 101!**
- + With arrangement template: see at a glance the arrangement of media lines, pipes and cables!
- + Generally ready for dispatch within 24 hours!
- + Available for an additional charge: non-corrosive stainless steel V4A / KTW - recommendation / NBR - oil- and petrol resistant / Temperature resistant up to 220 °C.
- + DafStB waterproof concrete guideline: Stress class 1 + 2

KRASO® Sealing Insert Type SD 30 • KRASO® Sealing Insert Type SD 60 **LG 1**

for installation of pipes or cables, Torque Control Nut **KRASO® DKM***
KRASO® Type SD 30 / KRASO® Type SD 30 - T, split / KRASO® Type SD 30 - GF, large flange
KRASO® Type SD 60 / KRASO® Type SD 60 - T, split / KRASO® Type SD 60 - GF, large flange
 | DafStB waterproof concrete guideline: Stress class 1 + 2

Core hole diameter or Casing in mm	50	60	70	80	100	125	150	200	250	300	350	400	450	500
max. external diameter pipe or cable														
from	0	0	0	0	0	0	0	0	0	0	0	0	0	0
to	25	35	45	55	75	100	125	175	225	275	325	375	425	475
KRASO® Type SD 30														
KRASO® Type SD 30	87 €	87 €	87 €	94 €	94 €	120 €	136 €	176 €	237 €	303 €	364 €	416 €	491 €	546 €
KRASO® Type SD 30 - T	100 €	100 €	100 €	108 €	108 €	138 €	156 €	202 €	273 €	348 €	419 €	478 €	565 €	628 €
KRASO® Type SD 30 - GF	96 €	96 €	96 €	103 €	103 €	132 €	150 €	194 €	261 €	333 €	400 €	458 €	540 €	601 €
Surcharge: additional drilling	up to 5 drillings each additional drilling 17 €, each additional drilling 11 €													
KRASO® Type SD 60														
KRASO® Type SD 60	117 €	125 €	125 €	125 €	134 €	165 €	193 €	250 €	324 €	425 €	494 €	550 €	651 €	761 €
KRASO® Type SD 60 - T	135 €	144 €	144 €	144 €	154 €	190 €	222 €	288 €	373 €	489 €	568 €	633 €	749 €	875 €
KRASO® Type SD 60 - GF	129 €	138 €	138 €	138 €	147 €	182 €	212 €	275 €	356 €	468 €	543 €	605 €	716 €	837 €
Surcharge: additional drilling	up to 5 drillings each additional drilling 17 €, each additional drilling 11 €													

*In some designs allen screws might be used.

Scope of supply: KRASO® Type SD 30, KRASO® Type SD 30 - T, KRASO® Type SD 30 - GF, KRASO® Type SD 60, KRASO® Type SD 60 - T or KRASO® Type SD 60 - GF

All sizes and diameters available on request!

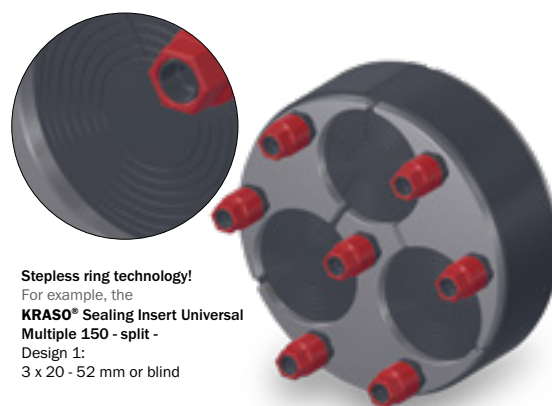


New product!



KRASO® Sealing Insert Universal Multiple - split - Can be used anywhere – extremely flexible

- + For Core Drillings or Casings.
- + Stepless ring technology: Can be used for every external diameter of media lines/cables – even with several penetrations!
Split design for retrofit installation!
- + KRASO® Sealing Insert quality: 5 mm thick clamping plates made of non-corrosive stainless steel V2A, 40 mm seal made of specially developed rubber mixture, welded-on studs instead of through bolts.
- + Torque Control Nut KRASO® DKM: Automatic torque without a torque wrench!
- + MPA-tested: protects reliable against pressurised water up to 2,5 bar!
- + Gas and odour tight – High-quality in terms of TA-Air!
- + Radon tightness IAF tested - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + Tested according to FHRK test specification GE 101!
- + DafStB waterproof concrete guideline: Stress class 1 + 2



Stepless ring technology!
For example, the
KRASO® Sealing Insert Universal Multiple 150 - split - Design 1:
3 x 20 - 52 mm or blind

KRASO® Sealing Insert Universal Multiple - split - **LG 1**

can be used for penetration of several media lines/cables, split design for retrofit installation,
Torque Control Nut KRASO® DKM, 40 mm seal | DafStB waterproof concrete guideline: Stress class 1 + 2

KRASO® Sealing Insert Universal Multiple - split -				
Core hole diameter or Casing in mm	100	125	150	200
	Stepless ring technology: External diameter of cable from ... to ... in mm			
Design 1	4 x 6 - 33 mm or blind	6 x 6 - 28 mm or blind	3 x 6 - 52 mm or blind	3 x 6 - 28 mm or blind 4 x 6 - 52 mm or blind
Design 2	3 x 6 - 18 mm or blind 2 x 6 - 33 mm or blind	-	4 x 6 - 18 mm or blind 6 x 6 - 33 mm or blind	7 x 6 - 18 mm or blind 8 x 6 - 33 mm or blind
Design 3	8 x 6 - 18 mm or blind	-	6 x 6 - 38 mm or blind	-
KRASO® Sealing Insert Universal Multiple - split -	91 €	99 €	139 €	215 €

Scope of supply: KRASO® Sealing Insert Universal Multiple - split -

Further arrangements always possible at short notice!



KRASO® Sealing Insert Type GR
Here there is an installation video
(just scan in the QR-Code!)

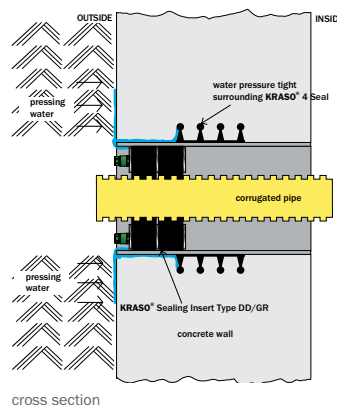
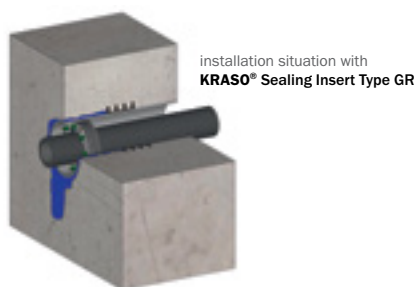
Specially for ribbed media pipes



KRASO® Sealing Insert Type GR

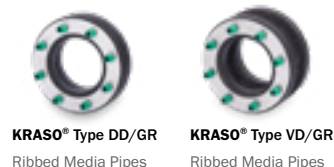
The sealing insert for ribbed media pipes

- + **Corrugated and ribbed pipes** have become essential for the installation of media lines in residential and industrial buildings. We developed the **KRASO® Sealing Insert Type GR** so that these as well can be sealed reliably against pressurised water.
- + With a specially soft rubber seal – double the sealing performance with a 40 mm seal or quadruple sealing with 80 mm seal – as well as a central pressure distribution plate for even pressure distribution with corrugated media pipes.
- + **KRASO® Sealing Insert quality: 5 mm thick clamping plates** made of non-corrosive stainless steel V2A, more studs for even pressure distribution, welded-on studs instead of through bolts.
- + Torque Control Nut **KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + **MPA-tested**: protects reliable against pressurised water up to 1,0 bar / 2,0 bar!
- + **Gas and odour tight** – High-quality in terms of TA-Air!
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + **Tested according to FHRK test specification GE 101!**
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



KRASO® Sealing Insert Type GR **LG 1**

for installation of ribbed or corrugated media pipes, against pressing water up to 1,0 bar, with 40 mm (DD), or up to 2,0 bar with 80 mm (VD) specially soft seal and central pressure distribution plate for an evenly distribution of pressure with corrugated media pipes, prevents damages or leaks, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A
| DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® Type DD/GR • KRASO® Type VD/GR								
Core hole diameter or Casing in mm	100	125	150	200	250	300	350	400	500
max. external diameter pipe or cable from ... to ... in mm	0 - 75	0 - 100	0 - 125	0 - 175	0 - 225 ¹	0 - 275 ¹	0 - 325	0 - 375	0 - 475
KRASO® Type DD/GR (40 mm)	123 €	151 €	178 €	224 €	260 €	378 €	449 €	521 €	655 €
KRASO® Type VD/GR (80 mm)	148 €	181 €	214 €	269 €	312 €	454 €	539 €	625 €	786 €

¹ From 200 mm external diameter pipe or cable: KRASO® Sealing Insert Type DD/GR with 60 mm seal

Scope of supply: KRASO® Type DD/GR • KRASO® Type VD/GR

Further sizes and diameters available on request! All sealing inserts available in V4A for an additional charge!

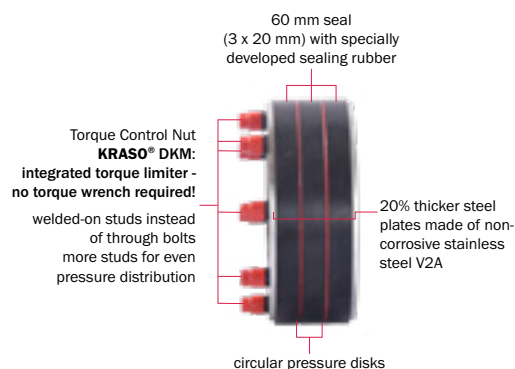
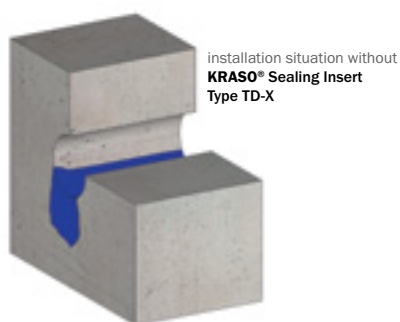
10 bar! For special tasks!!



KRASO® Sealing Insert Type TD-X

The trio seal of a superior class

- + For Core Drillings or Casings.
- + All the advantages of **KRASO® Sealing Inserts** are combined and made even better in the **KRASO® Sealing Insert Type TD-X**.
- + **20% thicker steel plates** made of **non-corrosive stainless steel V2A!**
- + **Triple sealing** with a 60 mm seal with **specially developed sealing rubber!**
- + **Two circular pressure disks** guarantee optimal pressure distribution even with uneven media lines, structured SML and TML pipes or with ovality or core drillings with blowholes!
- + **More studs** for even pressure distribution, welded-on studs instead of through bolts!
- + Torque Control Nut **KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + **MPA-tested**: protects reliable against pressurised water up to 10 bar!
- + **Gas and odour tight** – High-quality in terms of TA-Air!
- + **Radon tightness IAF tested** - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101!
- + **Tested according to FHRK test specification GE 101!**
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



KRASO® Sealing Insert Type TD-X **LG 1**

for installation of pipes, Torque Control Nut **KRASO® DKM***, non-corrosive stainless steel V2A, triple sealing, against pressing water up to 10 bar, with 60 mm seal made of specially developed rubber and 2 central circular pressure disks for evenly distribution of pressure with uneven media pipes, damages and leaks are prevented
| DafStB waterproof concrete guideline: Stress class 1 + 2



Type / Item	KRASO® Type TD-X									
Core hole diameter or Casing in mm	80	100	125	150	200	250	300	350	400	500
max. external diameter pipe or cable from ... to ... in mm	0 - 55	0 - 75	0 - 100	0 - 125	0 - 175	0 - 225	0 - 275	0 - 325	0 - 375	0 - 475
KRASO® Type TD-X	127 €	143 €	167 €	200 €	264 €	318 €	469 €	589 €	709 €	1.004 €

* In some designs Allen screws might be used.

Scope of supply: **KRASO®** Type TD-X

Further sizes and diameters available on request! All sealing inserts available in V4A for an additional charge!



KRASO® Sealing Insert Type FIX **LG 1**

for installation of pipes, with mounting bracket for fixing to the wall, Torque Control Nut **KRASO®** DKM*, non-corrosive stainless steel V2A, single sealing, against pressing water up to 1,0 bar, 20 mm seal (**KRASO®** Type ED/FIX), double sealing, against pressing water up to 3,0 bar, 40 mm seal (**KRASO®** Type DD/FIX) | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type ED/FIX • KRASO® Type DD/FIX									
Core hole diameter or Casing in mm	80	100	125	150	200	250	300	350	400	500
max. external diameter pipe or cable from ... to ... in mm	0 - 55	0 - 75	0 - 100	0 - 125	0 - 175	0 - 225	0 - 275	0 - 325	0 - 375	0 - 475
KRASO® Type ED/FIX	64 €	70 €	84 €	100 €	131 €	160 €	234 €	294 €	354 €	503 €
KRASO® Type DD/FIX	96 €	108 €	126 €	150 €	198 €	239 €	351 €	442 €	533 €	754 €

* In some designs Allen screws might be used.

Scope of supply: **KRASO®** Type ED/FIX • **KRASO®** Type DD/FIX

Further sizes and diameters available on request! All sealing inserts available in V4A for an additional charge!

New! KRASO® Sealing Insert Type Blind ED + DD + VD from 250 with Inner core to distribute the pressure:

- evenly less installation weight
- easy installation
- optimal pressure distribution



KRASO® Type Blind ED 250



KRASO® Type Blind DD 250



KRASO® Type Blind VD 250



KRASO® Type Blind ED



KRASO® Type Blind DD



KRASO® Type Blind VD



KRASO® Sealing Insert Type Blind ED + DD + VD **LG 1**

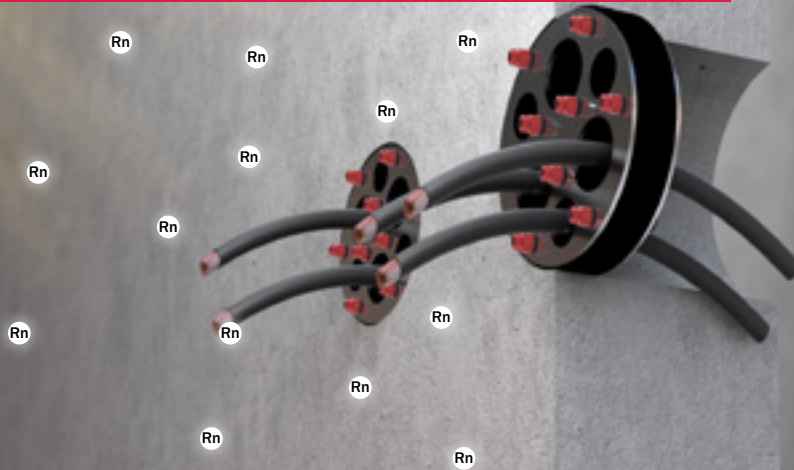
blind plug, for pressing water, Torque Control Nut **KRASO®** DKM, non-corrosive stainless steel V2A, single sealing, against pressing water up to 1,0 bar, 20 mm seal (**KRASO®** Type Blind ED), double sealing, against pressing water up to 3,0 bar, 40 mm seal (**KRASO®** Type Blind DD), quadruple sealing, against pressing water up to 8,0 bar, 80 mm seal (**KRASO®** Type Blind VD) from DN 250 with central pressure distribution plate, low installation weight, simpler assembly, optimal pressure distribution | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Type Blind ED • KRASO® Type Blind DD • KRASO® Type Blind VD									
Core hole diameter or Casing in mm	80	100	125	150	200	250	300	350	400	500
KRASO® Type Blind ED (20 mm)	56 €	62 €	76 €	85 €	117 €	138 €	180 €	196 €	211 €	304 €
KRASO® Type Blind DD (40 mm)	67 €	77 €	95 €	112 €	141 €	164 €	238 €	283 €	328 €	411 €
KRASO® Type Blind VD (80 mm)	84 €	96 €	118 €	140 €	176 €	205 €	297 €	353 €	410 €	514 €

Scope of supply: **KRASO®** Type Blind ED, **KRASO®** Type Blind DD or **KRASO®** Type Blind VD

Further diameters available on request! All sealing inserts available in V4A for an additional charge!

KRASO® Sealing Inserts - protection against radioactive radon

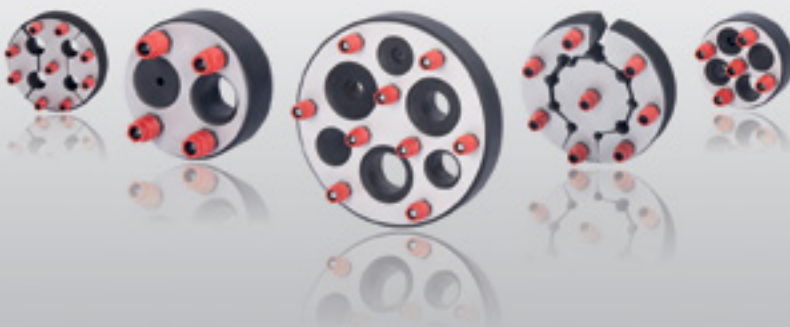


- + Radon is a naturally occurring noble gas. An accumulation of the radioactive gas in rooms is harmful to health!
- + **KRASO® Sealing Inserts** and **KRASO® Pipe Penetrations with 4 Seal** do not only protect against pressing water, they are also gas-tight - MPA- and IAF-tested!
For a reliable protection against radon look out for the sign "RADON-TIGHT!" and the "FHRK Radon Tight"-seal!



KRASO® Sealing Insert Configurator - online and as app

KRASO® Sealing Insert Configurator (just scan in the QR-Code!)

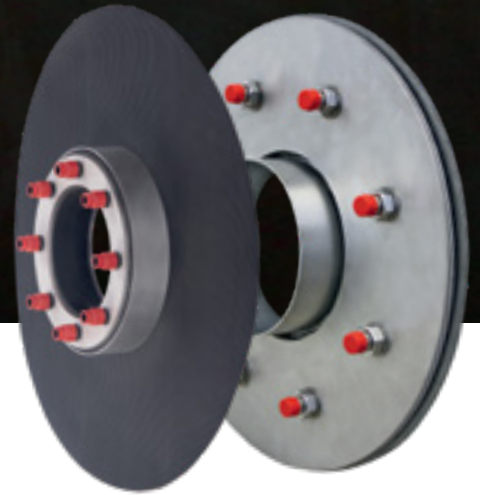


- + **Simple and fast:** configure the fitting sealing insert and demand an offer online or via app. Just enter quantity and diameters of media lines and the sealing insert configurator proves feasibility and proposes the suitable diameter for a core hole.

Available free of charge for Android and iOS or at [KRASO.de/en](https://www.kraso.de/en)



The alternative to a fixed-loose flange!



KRASO® Foil Clamping Flange Type FKF When “tight” means simply tight - sealing solutions for the “black tank”

- + Designers and building contractors face numerous **structural-physical conditions**. The **protection of below-ground structural elements against moisture and water** is regulated by **DIN 18533**, stating different water exposure class and provisions regarding the waterproofing of buildings.
- + For the **sealing of utility lines** in regard to buildings with exterior sealing (“black tank”) we offer our **KRASO® Casing Type FL with fixed-loose flange construction according DIN 18533 W1-E or W2-E**.
- + According **DIN 18533** the **KRASO® Foil Clamping Flange Type FKF** is an effective alternative for the integration of media lines into the sealing of larger areas!

Your advantages

- + **Cost-effective, saves time and money**
- + Test-certificate from material testing institute in NRW: **water pressure tight up to 2,5 bar**
- + We can **individually adjust the type of sealing sheets or foils**
- + **Noticeable lower weight** than a fixed-loose flange construction, for an easier installation, helps to avoid installation errors
- + Suitable for every **external diameter** of media lines and all kinds of materials
- + Metal components made of **non-corrosive stainless steel V2A**
- + For new building and rehabilitation!



KRASO® Foil Clamping Flange Type FKF
Here there is an installation video
(just scan in the QR-Code!)

The alternative to a
fixed-loose flange!

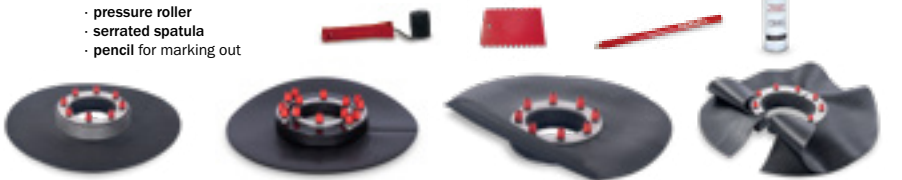


KRASO® Foil Clamping Flange Type FKF

The revolution in the integration of media lines into the sealing of larger areas

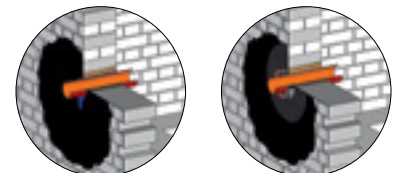
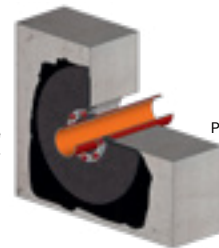
- + With our innovative **KRASO® Foil Clamping Flange Type FKF** a foil flange can be fastened water pressure tight to every pipe or cable, which is even and stable!
- + Suitable for all external diameters of media lines and for all materials!
- + We can individually adjust the type of sealing sheets or foils:
e.g. PVC, EPDM, FPO, RESITRIX®, PP, PE, KRASO®-Fol, PYE-PV 200 S5 etc.
- + Torque Control Nut **KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + Metal components made of non-corrosive stainless steel V2A.
- + For new building and rehabilitation! Various designs for almost every situation!
- + Simple and fast mounting: installation errors are almost impossible!
- + MPA-tested: water pressure tight up to 2,5 bar! A really simple and tight solution for the sealing of larger areas!
- + Tested according to FHRK test specification GE 101!
- + DIN 18533 W1 -E and W2.1 -E

- included in the delivery
- KRASO® PU 50 - high-quality sealant
 - pressure roller
 - serrated spatula
 - pencil for marking out



KRASO® Foil Clamping Flange Type FKF - in front of the wall -
KRASO® Foil Clamping Flange Type FKF - in front of the wall - split -
KRASO® Foil Clamping Flange Type FKF - in the core drilling -
KRASO® Foil Clamping Flange Type FKF - in the core drilling - split -

installation situation
KRASO® Foil Clamping Flange Type FKF - in the core drilling -



installation situation left without, right with
KRASO® Foil Clamping Flange Type FKF - in front of the wall -

KRASO® Foil Clamping Flange Type FKF **LG1**

for the sealing of media of all kinds of materials in front of a wall or in the core drilling, with foil flange 1,2 mm, according DIN 16937, oil- and bitumen resistant, surrounding approx. 15 cm, 30 mm seal, against pressing water up to 2,5 bar, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A | DIN 18533 W1 -E and W2.1 -E

External diameter or core hole in mm	max. external diameter pipe or cable from ... to ... in mm	KRASO® Folienklemmflansch Type FKF - in front of the wall -	KRASO® Folienklemmflansch Typ FKF - in front of the wall - split -	KRASO® Folienklemmflansch Typ FKF - in the core drilling -	KRASO® Folienklemmflansch Typ FKF - in the core drilling - split -
80	0 - 40	213 €	288 €	213 €	234 €
100	0 - 63	224 €	322 €	224 €	247 €
125	0 - 80	257 €	366 €	257 €	283 €
150	0 - 110	312 €	433 €	312 €	344 €
200	0 - 160	390 €	545 €	390 €	428 €
250	0 - 200	532 €	760 €	532 €	584 €
300	0 - 250	731 €	992 €	731 €	804 €

Scope of supply: KRASO® Foil Clamping Flange Type FKF, adhesive and sealant KRASO® PU 50, serrated spatula, pressure roller and pencil
Further sizes and diameters available on request! Also available with other sealing sheets!



Specially for ribbed
media pipes



KRASO® Foil Clamping Flange Type FKF DD/GR **LG 1**

for the sealing of media of all kinds of materials in front of a wall or in the core drilling, with foil flange 1,2 mm, according to DIN 16937, oil- and bitumen resistant, surrounding approx. 15 cm, 40 mm specially soft seal, central pressure distribution plate for even pressure distribution with corrugated media pipes, against pressing water up to 1,0 bar, Torque Control Nut **KRASO®** DKM, non-corrosive stainless steel V2A | DIN 18533 W1 -E and W2.1 -E

External diameter or core hole in mm	max. external diameter pipe or cable from ... to ... in mm	KRASO® Foil Clamping Flange Type FKF DD/GR - in front of the wall -	KRASO® Foil Clamping Flange Type FKF DD/GR - in front of the wall - - split -	KRASO® Foil Clamping Flange Type FKF DD/GR - in the core drilling -	KRASO® Foil Clamping Flange Type FKF DD/GR - in the core drilling - - split -
100	0 - 63	302 €	414 €	302 €	321 €
125	0 - 80	347 €	477 €	347 €	367 €
150	0 - 110	421 €	578 €	421 €	444 €
200	0 - 160	526 €	723 €	526 €	554 €
250	0 - 200 ¹	717 €	986 €	717 €	809 €
300	0 - 250 ¹	987 €	1.356 €	987 €	1.066 €

¹ From 200 mm external diameter pipe or cable **KRASO®** Foil Clamping Flange Type FKF DD/GR with 60 mm seal

Scope of supply: **KRASO®** Foil Clamping Flange Type FKF DD/GR, adhesive and sealant **KRASO®** PU 50, serrated spatula, pressure roller and pencil
Further sizes and diameters available on request! Also available with other sealing sheets!



KRASO® Foil Clamping Flange Type FKF Universal **LG 1**

for the sealing of media of all kinds of materials in front of a wall, with foil flange 1,2 mm, according to DIN 16937, oil- and bitumen resistant, surrounding approx. 15 cm, 40 mm seal, against pressing water up to 1,5 bar, Torque Control Nut **KRASO®** DKM, non-corrosive stainless steel V2A | DIN 18533 W1 -E and W2.1 -E



KRASO® Foil Clamping Flange Type FKF Universal

External diameter or core hole in mm	KRASO® Foil Clamping Flange Type FKF Universal 100	KRASO® Foil Clamping Flange Type FKF Universal 150	KRASO® Foil Clamping Flange Type FKF Universal 200
A sealing insert for all pipes or cables listed in the table on the right (in mm)	stepless onion ring technology 18 - 65 mm or blind	110 (DN 110 KG-pipe) (DN 110 SML-pipe)	160 (DN 160 KG-pipe) (DN 160 SML-pipe)
		90 (DN 80 steel pipe, PE-pipe)	135 (DN 125 SML-pipe)
		75 (DN 70 HT-pipe)	125 (DN 125 KG-pipe)
		0	110 (DN 110 KG-pipe) (DN 110 SML-pipe)
			0
KRASO® Foil Clamping Flange Type FKF Universal	197 €	269 €	329 €

Scope of supply: **KRASO®** Foil Clamping Flange Type FKF Universal, adhesive and sealant **KRASO®** PU 50, serrated spatula, pressure roller and pencil
Further sizes and diameters available on request! Also available with other sealing sheets!



KRASO® Plastic Flange Plate Type KFP - split -
Here there is an installation video
(just scan in the QR-Code!)

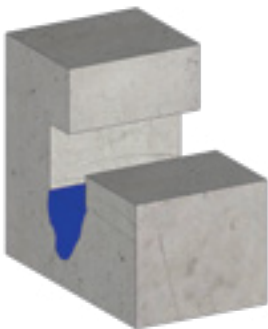


WU
1+2

W1-E
W2.1-E
(with foil flange)

KRASO® Plastic Flange Plate Type KFP - split - A proven solution thought out again

- + Like a “split casing“: the flange plate made of high-strength special plastic can be installed retrospectively.
- + No core drilling: media lines do not need to be separated for installation!
- + Installation in front of a wall made of waterproof concrete (WU) or as KRASO® Type KFP with foil flange in front of a wall with sealing of larger areas.
- + Due to the low weight easy installation by just one person!
- + Very latest CNC production technology: absolute dimensional compliance - no tolerances such as are usual with solutions involving metal.
- + Tongue and groove system: the two halves of the plastic flange plate automatically pull together with a 100% accurate fit. Installation errors are thus avoided through this innovation!
- + Subsequent sealing of the media lines in the plastic flange plate using KRASO® Sealing Insert. Also available as split version!
- + DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E and W2.1-E



Installation situation without
KRASO® Plastic Flange Plate
Type KFP - split -



Installation situation with
KRASO® Plastic Flange Plate
Type KFP - split -



KRASO® Plastic Flange Plate
Type KFP - split -

KRASO® Plastic Flange Plate
Type KFP - Foil Flange - split -

KRASO® Plastic Flange Plate Type KFP - split - **LG 1**

for installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), core drillings are not required, a simple opening or recess in the wall is enough, against pressing water up to 3,0 bar, plate made of 60 mm thick, high-strength special plastic, EPDM flat seal, ID = Internal Diameter

| DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1-E and W2.1-E

Type / Item	KRASO® Type KFP - split - • KRASO® Type KFP - Foil Flange - split -						
Internal Diameter ID	80	100	125	150	200	250	300
max. external diameter pipe or cable from ... to ... in mm	0 - 55	0 - 75	0 - 100	0 - 125	0 - 175	0 - 225	0 - 275
Plate size approx. in mm	d = 240	d = 260	d = 285	d = 310	d = 360	d = 410	d = 460
KRASO® Plastic Flange Plate Type KFP - split -	349 €	360 €	388 €	406 €	470 €	535 €	589 €
KRASO® Plastic Flange Plate Type KFP - Foil Flange - split -	437 €	450 €	486 €	507 €	588 €	669 €	736 €

Scope of supply: KRASO® Plastic Flange Plate Type KFP - split - or KRASO® Plastic Flange Plate Type KFP - Foil Flange - split -, EPDM flat seal to the component and fixing material, adhesive and sealant KRASO® PU 50

Further sizes and diameters available on request!



WU
1+2

W1 -E
W2.1 -E
(with foil flange)



KRASO® Plastic Flange Plate Type KFP

The flange plate made of high-strength special plastic

- + Due to changes in the groundwater level the rehabilitation of old buildings and the sealing of basements become necessary from time to time. **For that matter existing pipes and cables should also be sealed using the latest technology.**
- + The sealing of the media lines inside the plastic flange plate is completed by using a split **KRASO® Sealing Insert**.
- + **DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1 -E and W2.1 -E**



KRASO® Plastic Flange Plate
Type KFP



KRASO® Plastic Flange Plate
Type KFP - Foil Flange

KRASO® Plastic Flange Plate Type KFP **LG 1**

for installation of pipes or cables using **KRASO® Sealing Insert** (not included in the delivery), core drillings are not required, a simple opening or recess in the wall is enough, against pressing water up to 3,0 bar, plate made of 60 mm thick, high-strength special plastic, EPDM flat seal, ID = InternalDiameter

| **DafStB waterproof concrete guideline: Stress class 1 + 2, with foil flange DIN 18533 W1 -E and W2.1 -E**

Type / Item	KRASO® Type KFP • KRASO® Type KFP - Foil Flange						
InternalDiameter ID	80	100	125	150	200	250	300
max. external diameter pipe or cable from ... to ... in mm	0 - 55	0 - 75	0 - 100	0 - 125	0 - 175	0 - 225	0 - 275
Plate size approx. in mm	d = 240	d = 260	d = 285	d = 310	d = 360	d = 410	d = 460
KRASO® Plastic Flange Plate Type KFP	249 €	258 €	277 €	291 €	335 €	382 €	422 €
KRASO® Plastic Flange Plate Type KFP - Foil Flange	312 €	322 €	346 €	363 €	421 €	477 €	527 €

Scope of supply: KRASO® Plastic Flange Plate Type KFP or KRASO® Plastic Flange Plate Type KFP - Foil Flange, EPDM flat seal to the component and fixing material, adhesive and sealant **KRASO® PU 50**

Further sizes and diameters available on request!

KRASO® KFP Installation Kit

suitable for **KRASO® Plastic Flange Plate Type KFP**: **KRASO® Torque Wrench**, socket wrench insert 8, Ø 19 mm nut, cartridge pressing pistol, blower for drilled holes



A proven solution
thought out again!



SEALING INSERTS

KRASO® Plastic Flange Plate Type KFP - multiple / multiple split

- + The flange plate made of high-strength special plastic can be installed retrospectively.
- + Installation in front of a wall made of waterproof concrete (WU) or in front of a wall with sealing of larger areas.
- + Subsequent sealing of the media lines in the plastic flange plate using **KRASO® Sealing Insert**. Also available as split version!



KRASO® Installation Service You build - we seal!



- + Whether new building or rehabilitation: the **KRASO®** Installation Service helps you with sealing your construction site. Our team will support you from measurement to the installation. Our technicians develop a solution, our mechanics deal with the installation on-site.
- + **We are looking forward to your request:** +49(0)28 72 -95 35-0
export@kraso.de



KRASO® Multi-Flange Plate Type MFP
Here there is an installation video
(just scan in the QR-Code!)



WU
1+2

KRASO® Multi-Flange Plate Type MFP

Clever combination - innovative problem-solver

- + The **KRASO® Multi-Flange Plate Type MFP** combines **high-quality KRASO® Sealing Inserts** with a **flange plate made of high-strength special plastic** of a type that is otherwise used in the automotive industry!
- + **Saves time and money:** an additional sealing insert is not required. **Easy installation:** thanks to the low weight it can be **installed fast and easily** by just one person.
- + Installation in front of the waterproof (WU) concrete wall. **EPDM flat seal, fixing material and our highly adhesive and sealant KRASO® PU 50** are included in the delivery.
- + **For new building and rehabilitation!** Media lines of all kinds of materials can be **installed or sealed retrospectively, easy and fast. Special designs** can be produced and shipped **within 24 hours.**
- + **MPA-tested: water pressure tight up to 1,0 bar!**
- + Torque Control Nut **KRASO® DKM: integrated torque limiter - no torque wrench required!**
- + **DafStB waterproof concrete guideline: Stress class 1 + 2**



installation situation
KRASO® Multi-Flange Plate Type MFP



KRASO® Multi-Flange Plate Type MFP, EPDM flat seal, fixing material, KRASO® PU 50

KRASO® Multi-Flange Plate Type MFP **LG 1**

for installation of pipes, 30 mm thick high-strength special plastic, with integrated sealing insert, Torque Control Nut **KRASO® DKM**, non-corrosive stainless steel V2A, seal width to the media pipe or cable 20 mm, EPDM flat seal, incl. fixing material and **KRASO® PU 50**, against pressing water, MPA-tested up to 1,0 bar | **DafStB waterproof concrete guideline: Stress class 1 + 2**

Type / Item	KRASO® Multi-Flange Plate Type MFP						
Diameter integrated KRASO® Sealing Insert	80	100	125	150	200	250	300
Plate size approx. in mm	d = 206	d = 226	d = 243	d = 273	d = 293	d = 373	d = 423
Diameter pipe or cable from ... to ... in mm	22 - 25	32 - 35	60 - 63	78 - 80	108 - 110	158 - 160	200
	32 - 35	40 - 43	75 - 77	88 - 90	114 - 118	168 - 170	210
	40 - 43	48 - 50	78 - 80	108 - 110	123 - 125	177 - 180	219
		60 - 63			133 - 135	200	225
					139 - 140	210	250
				158 - 160			
KRASO® Multi-Flange Plate Type MFP	204 €	216 €	234 €	251 €	302 €	347 €	427 €

Scope of supply: **KRASO® Multi-Flange Plate Type MFP, EPDM flat seal incl. fixing material and adhesive and sealant KRASO® PU 50**

Further sizes and diameters available on request!



W1 -E
W2.1 -E

W2.2 -E

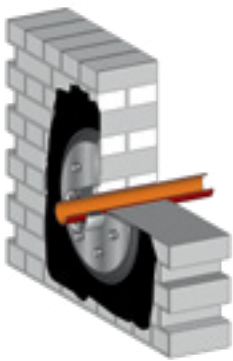


KRASO® Casing and Sealing Insert Type FL

Fixed-loose flange for dowel-fixing or for concreting and as sealing insert

- + For buildings with exterior sealing (“black tank”): according DIN 18533 (“sealing of below-ground structural elements”).
- + Each as **design for pressing water and non-pressing water.**
- + Available in non-corrosive stainless steel V2A or V4A and in electrogalvanised steel!
- + On request with special coating for buildings with thick coating (e.g. KMB)!
- + **DIN 18533: water exposure class W1 -E and W2.1 -E** (version “non pressing water“), **W2.2 -E** (version “pressing water“)

KRASO® Casing Type FL/ZA
- for dowel-fixing -



installation situation

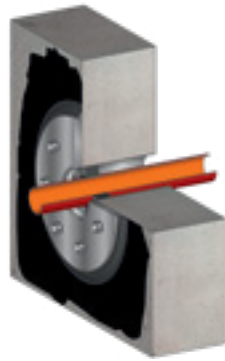


non-corrosive stainless steel V2A



electrogalvanised

KRASO® Casing Type FL/ZE
- for concreting -



installation situation



non-corrosive stainless steel V2A



electrogalvanised,
with plastic casing

KRASO® Sealing Insert Type FL/DD
- double sealing -



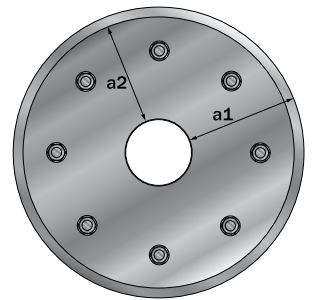
installation situation



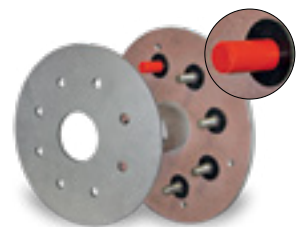
non-corrosive stainless steel V2A



electrogalvanised



Schematic top view



loose-flange fixed-flange

KRASO® Casing Type FL/ZA
for dowel-fixing - non-corrosive stainless steel - with special coating

- threaded protective caps protect the threaded bolts against contamination by the thick coating
- spacers prevent the thick coating from being pressed off



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



W1 -E
W2.1 -E

W2.2 -E

KRASO® Casing Type FL/ZA - fixed-loose flange for dowel-fixing **LG 2**

fixed-loose flange for dowel-fixing, with casing, for installation of media pipes using KRASO® Sealing Insert (not included in the delivery), for buildings with exterior sealing ("black tank") against pressing / non-pressing water according DIN 18533. Available in non-corrosive stainless steel V2A or electrogalvanised, each with or without special coating

ID = InternalDiameter | DIN 18533 W1 -E and W2.1 -E (version "non pressing water"), W2.2 -E (version "pressing water")

Type / Item	KRASO® Casing Type FL/ZA - PRESSING WATER according DIN 18533 W2-E						
Casing InternalDiameter ID	80	100	125	150	200	250	300
Protrusion in mm	80						
Diameter fixed-flange a1	surrounding 160 mm - t = 10 mm						
Diameter loose-flange a2	surrounding 150 mm - t = 10 mm						
KRASO® Casing Type FL/ZA - non-corrosive stainless steel V2A -	766 €	863 €	931 €	1.045 €	1.262 €	1.486 €	1.737 €
KRASO® Casing Type FL/ZA - electrogalvanised -	546 €	616 €	671 €	747 €	884 €	1.085 €	1.332 €
EPDM supplement (2 pcs.)	32 €	35 €	39 €	44 €	58 €	75 €	86 €
Surcharge special coating	144 €	151 €	166 €	183 €	201 €	222 €	243 €

Type / Item	KRASO® Casing Type FL/ZA - NON PRESSING WATER according DIN 18533 W1-E						
Diameter fixed-flange a1	surrounding 70 mm - t = 6 mm						
Diameter loose-flange a2	surrounding 60 mm - t = 6 mm						
KRASO® Casing Type FL/ZA - non-corrosive stainless steel V2A -	514 €	603 €	650 €	751 €	939 €	1.181 €	1.423 €
KRASO® Casing Type FL/ZA - electrogalvanised -	384 €	448 €	499 €	585 €	730 €	907 €	1.142 €
EPDM supplement (2 pcs.)	22 €	23 €	28 €	30 €	39 €	53 €	61 €
Surcharge special coating	122 €	129 €	135 €	142 €	149 €	157 €	164 €

Scope of supply: KRASO® Casing Type FL/ZA, casing with welded fixed-flange, loose-flange, dowels M8 x 100, bolts, nuts and washers M20 or M12

Further diameters and protrusions available on request ! Also available in V4A!



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



W1-E
W2.1-E

W2.2-E



KRASO® Casing Type FL/ZE - fixed-loose flange for concreting **LG 2**

fixed-loose flange for concreting, with casing, for installation of media pipes using KRASO® Sealing Insert (not included in the delivery) for buildings with exterior sealing ("black tank") against pressing / non-pressing water according DIN 18533. Available in non-corrosive stainless steel V2A or electrogalvanised with plastic casing, each either with or without special coating
ID = InternalDiameter | DIN 18533 W1 -E and W2.1 -E (version "non pressing water"), W2.2 -E (version "pressing water")

Type / Item	KRASO® Casing Type FL/ZE - PRESSING WATER according DIN 18533 W2-E						
Casing InternalDiameter ID	80	100	125	150	200	250	300
Protrusion in mm	20 • 24 • 25 • 30 • 35 • 36,5 • 40 • 45 • 50						
Diameter fixed-flange a1	surrounding 160 mm - t = 10 mm						
Diameter loose-flange a2	surrounding 150 mm - t = 10 mm						
KRASO® Casing Type FL/ZE - non-corrosive stainless steel V2A -	839 €	918 €	997 €	1.121 €	1.400 €	1.722 €	2.036 €
KRASO® Casing Type FL/ZE - electrogalvanised -	587 €	642 €	698 €	785 €	980 €	1.206 €	1.425 €
EPDM supplement (2 pcs.)	32 €	35 €	39 €	44 €	58 €	75 €	86 €
Surcharge special coating	144 €	151 €	166 €	183 €	201 €	222 €	243 €

Type / Item	KRASO® Casing Type FL/ZE - NON PRESSING WATER according DIN 18533 W1-E						
Diameter fixed-flange a1	surrounding 70 mm - t = 6 mm						
Diameter loose-flange a2	surrounding 60 mm - t = 6 mm						
KRASO® Casing Type FL/ZE - non-corrosive stainless steel V2A -	622 €	679 €	759 €	874 €	1.169 €	1.666 €	1.833 €
KRASO® Casing Type FL/ZE - electrogalvanised -	436 €	476 €	531 €	612 €	818 €	1.166 €	1.283 €
EPDM supplement (2 pcs.)	22 €	23 €	28 €	30 €	39 €	53 €	61 €
Surcharge special coating	122 €	129 €	135 €	142 €	149 €	157 €	164 €

Scope of supply: KRASO® Casing Type FL/ZE, with welded fixed-flange, loose-flange, dowels M8 x 100, bolts, nuts and washers M20 or M12

Further diameters and wall thicknesses available on request ! Also available in V4A!



KRASO® Sealing Insert Type FL
Here there is an installation video
(just scan in the QR-Code!)



KRASO® Sealing Insert Type FL - fixed-loose flange **LG 2**

fixed-loose flange with KRASO® Sealing Insert, for installation of media pipes, for buildings with exterior sealing ("black tank"), against pressing / non-pressing water according DIN 18533. Available in non-corrosive stainless steel V2A or electrogalvanised, each with or without special coating, Torque Control Nut KRASO® DKM

| DIN 18533 W1-E and W2.1-E (version "non pressing water"), W2.2-E (version "pressing water")

Diameter DN	80	100	125	150	200	250	300
	max. external diameter pipe or cable						
from	0	0	0	0	0	0	0
to	55	75	100	125	175	225	275

Type / Item	KRASO® Sealing Insert Type FL/DD - PRESSING WATER according DIN 18533 W2-E						
Diameter fixed-flange a1	surrounding 160 mm - t = 10 mm						
Diameter loose-flange a2	surrounding 150 mm - t = 10 mm						
KRASO® Sealing Insert Type FL/DD - non-corrosive stainless steel V2A -	779 €	876 €	954 €	1.063 €	1.258 €	1.543 €	1.900 €
KRASO® Sealing Insert Type FL/DD - electrogalvanised -	546 €	616 €	671 €	747 €	884 €	1.085 €	1.332 €
EPDM supplement (2 pcs.)	32 €	35 €	39 €	44 €	58 €	75 €	86 €
Surcharge special coating	144 €	151 €	166 €	183 €	201 €	222 €	243 €

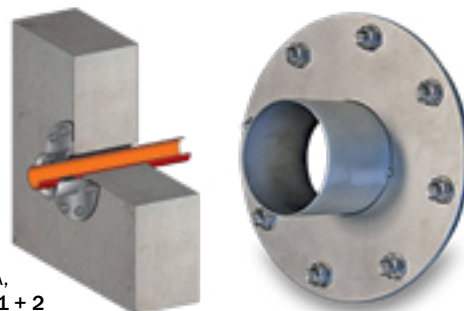
Type / Item	KRASO® Sealing Insert Type FL/ED - NON PRESSING WATER according DIN 18533 W1-E						
Diameter fixed-flange a1	surrounding 70 mm - t = 6 mm						
Diameter loose-flange a2	surrounding 60 mm - t = 6 mm						
KRASO® Sealing Insert Type FL/ED - non-corrosive stainless steel V2A -	550 €	639 €	711 €	833 €	1.038 €	1.293 €	1.632 €
KRASO® Sealing Insert Type FL/ED - electrogalvanised -	384 €	448 €	499 €	585 €	730 €	907 €	1.143 €
EPDM supplement (2 pcs.)	22 €	23 €	28 €	30 €	39 €	53 €	61 €
Surcharge special coating	122 €	129 €	135 €	142 €	149 €	157 €	164 €

Scope of supply: KRASO® Sealing Insert Type FL/DD / KRASO® Sealing Insert Type FL/ED, sealing insert with welded fixed-flange, loose-flange, dowels M8 x 100, bolts, nuts and washers M20 or M12, 40 mm or 20 mm seal

Further diameters available on request! Also available in V4A!



KRASO® Flange Plate stainless steel
installation situation



KRASO® Flange Plate stainless steel V2A **LG 2**

for installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), in front of a core hole in concrete or masonry wall, made of non-corrosive stainless steel V2A, EPDM flat seal. ID = InternalDiameter | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Flange Plate stainless steel V2A						
InternalDiameter tubular sleeve ID	80	100	125	150	200	250	300
Protrusion in mm	80	80	80	80	80	80	80
Plate size in mm	d = 240	d = 260	d = 290	d = 310	d = 360	d = 410	d = 460
KRASO® Flange Plate stainless steel V2A	228 €	236 €	252 €	265 €	308 €	348 €	384 €

Scope of supply: KRASO® Flange Plate stainless steel V2A, with welded stainless steel tubular sleeve, EPDM flat seal incl. fixing material and adhesive and sealant KRASO® PU 50

Further sizes and diameters available on request! Available for an additional charge: split design, fixed-loose flange construction according DIN 18533, non-corrosive stainless steel V4A!



KRASO® Flange Plate electrogalvanised **LG2**

for installation of pipes or cables using KRASO® Sealing Insert (not included in the delivery), in front of a core hole in concrete or masonry wall, electrogalvanised steel, with welded tubular sleeve, EPDM flat seal. ID = InternalDiameter | DafStB waterproof concrete guideline: Stress class 1 + 2

Type / Item	KRASO® Flange Plate electrogalvanised						
InternalDiameter tubular sleeve ID	80	100	125	150	200	250	300
Protrusion in mm	80	80	80	80	80	80	80
Plate size in mm	d = 240	d = 260	d = 290	d = 310	d = 360	d = 410	d = 460
KRASO® Flange Plate electrogalvanised	171 €	177 €	190 €	199 €	230 €	262 €	289 €

Scope of supply: KRASO® Flange Plate electrogalvanised, EPDM flat seal incl. fixing material and adhesive and sealant KRASO® PU 50

Further sizes and diameters available on request! Available for an additional charge: split design, fixed-loose flange construction according DIN 18533!

**Stainless steel or galvanised?
Note the following!**

- + **Long-lasting quality:** non-corrosive stainless steel has an especially high proportion of chromium. This forms - together with further alloying constituents - a protective layer ("chromium-oxide") which provides a special protection against corrosion and acids for the steel.
- + **Cost-effective alternative:** electrogalvanised steel has a protective coating made of zinc. If the coating of zinc which is only a few microns thick, is damaged e.g. on the construction site, the risk of corrosion increases. If there is constant dampness it is advisable to use the quality of non-corrosive stainless steel.

Heat pump technology – simple and tight into the building



- + Part of an efficient heat pump system includes **gas and pressure water tight installation into the building** – either through the cellar wall or the base plate, with a white or black tank.
- + With or without cellar, new building, or rehabilitation: **KRASO®** has various solutions for simple, tight sealing of heat pumps!



KRASO® products – pioneers in heat pumps
Scan the QR code and download the brochure!

KRASO® is a member of FHRK e.V.



- + As a member of the **Fachverband Hauseinführungen für Rohre und Kabel (FHRK e.V.)** association, we develop testing principles and technical guidelines together with other manufacturers and users such as utility companies so that the quality of sealing solutions for house connections is ensured and can also be compared.

