

# KRASO<sup>®</sup>

SIMPLE + TIGHT



## Catalogue 2026

WATER PRESSURE TIGHT INSTALLATION PARTS FOR CONCRETE ENGINEERING  
SEALING SOLUTIONS FOR CABLES + PIPES

# KRASO®

SIMPLE + TIGHT

- + We have been developing, producing and distributing our water pressure tight installation parts from our company site in Rhede in North Rhine-Westphalia for over 40 years.
- + As a family company with over 170 employees we feel obliged to the quality feature “Made in Germany”!
- + Together with our distributors we supply national and international sales partners!



**Made in Germany**  
- in use worldwide

With our **KRASO® Catalogue 2026** we offer the complete range of sealing solutions from a single source. Whether for waterproof concrete structures or rehabilitation, single-family homes or infrastructure projects – we have a solution for every challenge for waterproofing buildings. This is also reflected in the scope of this catalogue: you will be unlikely to find a similarly comprehensive range of solutions anywhere else!

We offer complete systems, such as our **KRASOflex® Joint Tapes**, which can be scaled in size and design to suit any project. With the expertise of our employees, we support planners, builders and construction companies right from the start. You can find out everything you need to know about our joint tapes and the possibilities they offer on page 139.

Fresh concrete composite systems are also becoming increasingly important: here we offer sealing solutions with fresh concrete composite films such as pipe penetrations, which can be easily integrated into the respective FBV system. We can also manufacture entire precast concrete elements in the FBV system. Be inspired by the possibilities of our FBV solutions from page 121 onwards.

System-based construction also relies on precast concrete elements: in addition to many products such as pipe and cable penetrations for precast factories, we have now developed the **KRASO® Magnetic Cover** for pipe penetrations in DN 110, which significantly simplifies the production of precast walls as a magnetic interface (page 96)!

We would also like to draw your attention to the optimised **KRASO® Cable Penetrations KDS 150**: these are now suitable for use in both in-situ concrete and precast walls. With the **KRASO® Cable Penetration KDS 150 MAX** we have increased the centre distance in the package formation of the single and double wall penetrations to 270 mm. This leaves more space for reinforcement and concrete. The integrated trowel flange can be immediately incorporated into the surface sealing (page 71).

We offer complete waterproofing systems as well as the details that make our products so superior: **simple + tight!** This also means that numerous **KRASO® Products** have the **SHI product passport**, the **seal of quality for sustainable buildings**.

We look forward to receiving your feedback on the **KRASO® Catalogue 2026** as well as to your enquiries and projects!



Jürgen Krasemann sen.  
Managing Partner



Jürgen Krasemann  
Managing Partner



Dennis Krasemann  
Managing Partner



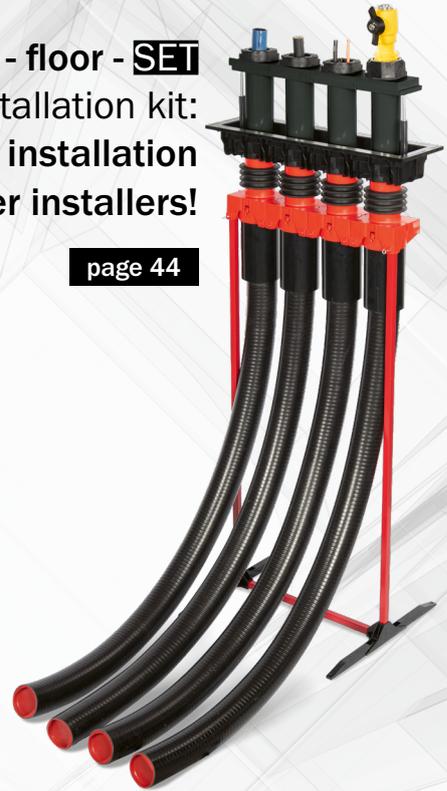
Christoph Bölting  
General Manager



Dear customers,  
dear dealers

**KRASO® Builder's Convenience Box - floor - SET**  
 Multi utility connection with integrated installation kit:  
 No need to pass on the installation  
 kit to other installers!

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NEW BUILDING

**KRASO® Magnetic Cover**  
 for pipe penetrations in DN 110  
 The magnetic interface for precast walls

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**KRASO® Products**  
 Our product highlights



NEW BUILDING 3.5 bar  TA Air Rn Radon-tight WU 1+2 W1-E W2.1-E

### KRASO® Cable Penetration KDS 150 **MAX**

With trowel flange and MAXimum centre distance

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NEW BUILDING **ABP** WU 1+2

### KRASOflex® Star Tube

The star tube of the future:  
tight, stable, sustainable!

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## KRASO® Quality Management Certification according to ISO 9001

Since 1981, **KRASO®** has stood for innovative sealing solutions with the highest quality standards. This also includes constant optimisation of production processes and our quality management in order to ensure maximum customer satisfaction.

With the ISO 9001 certification, the quality standards at **KRASO®** have now been confirmed with the internationally recognised seal of quality by TÜV Austria.



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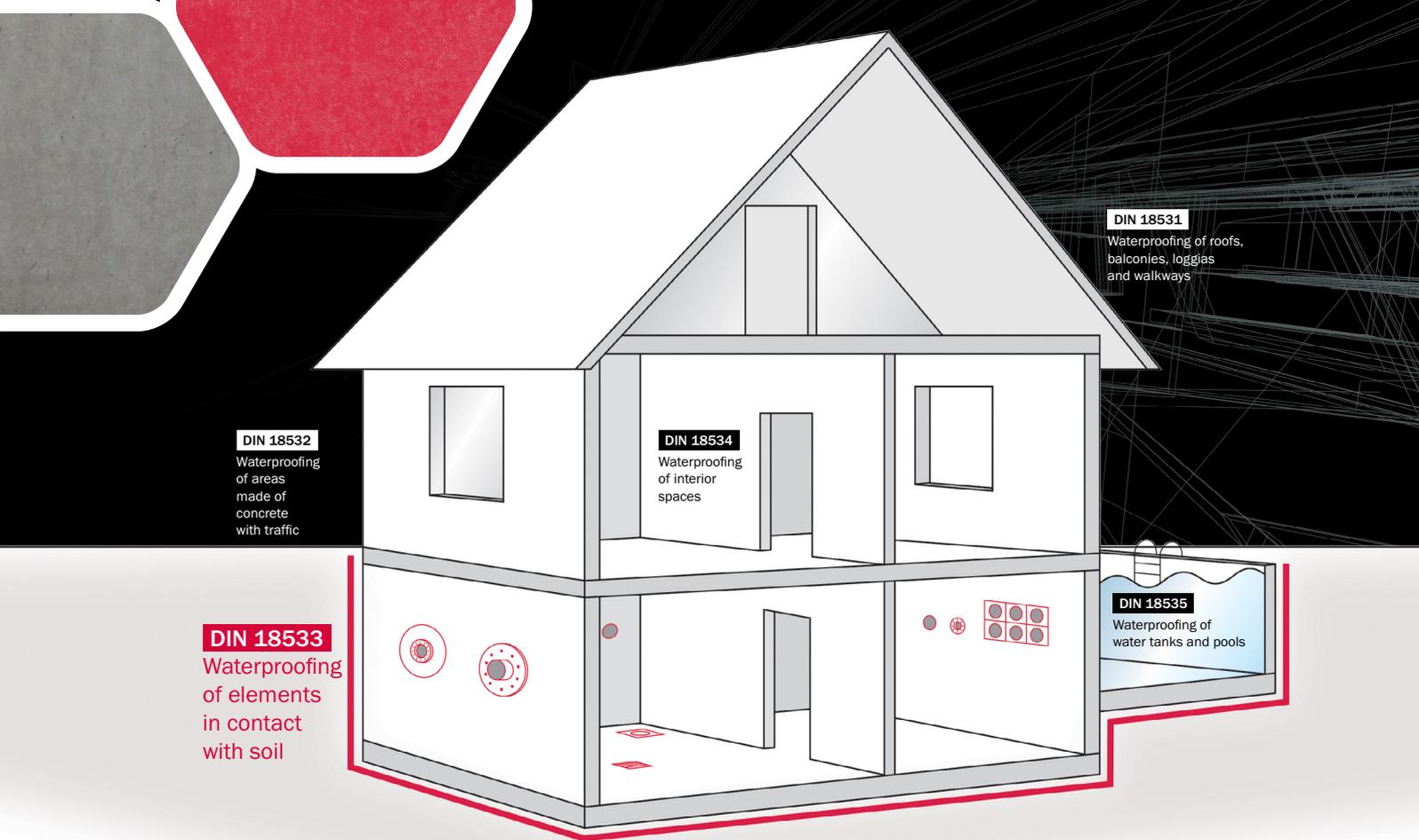
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## + Special designs

Stainless steel  
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**DIN 18532**

Waterproofing of areas made of concrete with traffic

**DIN 18534**

Waterproofing of interior spaces

**DIN 18531**

Waterproofing of roofs, balconies, loggias and walkways

**DIN 18533**

Waterproofing of elements in contact with soil

**DIN 18535**

Waterproofing of water tanks and pools

## Standards, regulations and rules

### DIN EN 1401 (KG pipe)

This European standard sets out the requirements for solid wall pipes, moulded parts and pipeline systems made out of plasticiser-free polyvinylchloride (PVC-U) for sewers and pipelines that are used in underground gravity drainage systems both within and outside the structure of the building. It applies to pipes made of unfoamed PVC-U with smooth ends as well as with a formed sleeve.

### DIN EN 14758 (KG 2000 pipe)

This European standard specifies the requirements for solid wall pipes, moulded parts and pipeline systems made out of mineral-filled polypropylene (PP-MD) for sewers and pipelines that are used in underground gravity drainage systems outside the structure of the building. It applies to pipes made of PP-MD, both with and without formed plug-in sleeve.

### DIN 18197 – sealing joints in concrete with joint tapes

#### Scope of application

This standard applies to the planning, dimensioning, handling, processing and installation of joint tapes that comply with the

- DIN 7865,
- DIN 18541

series of standards. The joint tapes are used to seal joints and desired crack cross sections against ground moisture, non-pressing or pressing water as well as for joint closure, they are embedded in concrete when creating joints in concrete components or structures made of waterproof concrete. This standard also applies to seals against contact media that chemically attack the joint tapes, provided that proof is given that the joint tapes are sufficiently durable for the specific project and other regulations do not conflict with this.



## DIN 18533 - Waterproofing of elements in contact with soil

In order to get an effective waterproofing of elements in contact with soil, the type of water impact is defined for DIN 18533. The impact differs depending on type and intensity. Which of the four water classes is given results from the measured water level or the measured groundwater level to be determined in relation to the object (HW) or the measured high water level (HHW). The following water impact classes are defined:

- **W1 -E** Soil moisture and non-pressing water
- **W1.1 -E** Soil moisture with base plates
- **W1.2 -E** Soil moisture and non-pressing water with walls and base plates in contact with soil
- **W2 -E** Pressing water
- **W2.1 -E** Moderate impact of pressing water (water column  $\leq 3$  metres)
- **W2.2 -E** High impact of pressing water (water column  $\geq 3$  metres)
- **W3 -E** Non-pressing water on an underground covered by earth
- **W4 -E** Splashed water on the wall base and capillary water in and below walls in contact with soil

## DIN 18541 - materials and application of joint tapes in concrete

This DIN was developed by the working committee NA005-02-14AA “materials and application of joint tapes in concrete” in the DIN Standards Committee for Construction (NABau). DIN 18541 consists of the following parts under the general title “joint tapes made of thermoplastics for sealing joints in concrete“:

- **Part 1:** terms, shapes, dimensions, labelling
- **Part 2:** requirements for materials and testing
- **Part 3:** factory production control (FPC)

## PVC-P according to DIN 18541

Plasticised PVC joint tapes in “DIN” quality are ideal for use in structures subject to very high stresses. These joint tapes meet the high standards of DIN 18541. The consistently high level of quality is ensured by continuous production control. The special composition further improves the characteristic properties of these joint tapes. They are more elastic and have a higher elongation at break and tensile strength.

## Factory standard / bitumen compatibility

### *PVC-P according to factory standard*

Plasticised PVC joint tapes in “factory standard” quality are ideal for use in concrete structures subject to normal stresses. The advantages of this quality lie in its good workability, weldability, durability and economic optimisation. The usability is regulated in a general building authority test certificate (abP) and is labelled with the ‘Ü’ mark and monitored accordingly.

### *Bitumen compatibility*

Joint tapes correspond to quality NB (not bitumen-compatible) as standard. Optionally, the joint tapes are available in quality BV (bitumen-compatible).

## **DAfStb's guideline "waterproof concrete structures" (waterproof concrete guideline)**

The waterproof concrete guideline of the German Committee for Reinforced Concrete (DAfStb e. V.) specifies detailed requirements for planning and execution. Building physics and other utilisation-related requirements are to be considered separately by the planner and are not covered by the waterproof concrete guideline. Information and specifications on this can be found in the DBV leaflet "high-quality utilisation of basements". The regulations of the guideline represent a supplement to the verification of usability in accordance with DIN EN 1992-1-1 and mark the current state of the art. They should therefore be contractually agreed for components within the scope of the guideline. The "waterproofing of buildings" group of norms (DIN 18195 and DIN 18531 to DIN 18535) expressly does not include waterproof concrete structures and is therefore not applicable. The waterproof concrete guideline applies to waterproof concrete structures and components partially or fully embedded in the ground as well as ceilings and roofs in general building and commercial construction. The scope of application therefore includes watertight basements ("white tanks"), watertight ceilings and roofs as well as the analogous implementation of the regulations for concrete structures and components with the function of water proofing (e.g. basins, retaining walls, underground engineering structures, etc.). The waterproof concrete guideline does not apply to structures according to ZTV-ING and ZTV-W or to prefabricated concrete garages.

**Two stress classes are defined in the waterproof concrete guideline:**

- **Stress class 1 (BKL-1):** standing and occasionally pressing water (ground water, high water, stratum water, occasionally standing seepage water)
- **Stress class 2 (BKL-2):** ground moisture and water running down the wall (non-standing seepage water)

## **DBV technical leaflets - detailed and practical publications on all aspects of building with concrete**

The leaflets and booklets of the Deutscher Beton- und Bautechnik-Verein e. V. (German Concrete and Construction Technology Association) contain specialist knowledge on exposed concrete, steel fibre concrete, multi-storey car parks and underground car parks. The collection of leaflets is divided into five subject areas and covers the categories of construction, construction in existing buildings, construction products, construction technology and concrete technology. As standard literature in the construction industry, the DBV technical leaflets provide knowledge from research, development and construction practice. The leaflets are detailed and practical and are available both individually and as a collection of leaflets. The DBV leaflet series currently comprises over 50 leaflets.

### ***DBV leaflet "coated joint plate systems"***

#### ***- application aid for planning, work preparation and materials***

Application aid for planning, work preparation and material: the new DBV leaflet provides information on planning, work preparation and material selection for coated joint plate systems in accordance with the requirements of the waterproof concrete guideline of the German Committee for Reinforced Concrete (DAfStb). Despite the widespread use of coated joint plates, the planning rules and application instructions were previously only available from general building authority test certificates (abPs) and specific processing guidelines from the individual manufacturers. The leaflet summarises the diversity of this type of joint sealing with general instructions and regulations and provides important application aids for execution as well as examples for the documentation of the work carried out.

### ***DBV leaflet "injection hose systems and swelling inserts for construction joints"***

The construction product-related DBV leaflet "injection hose systems and swelling inserts for construction joints" provides comprehensive information on planning and tendering, work preparation and material selection for injection hose systems and swelling joint inserts in waterproof concrete structures. Practical application aids for execution and quality assurance as well as examples for the documentation of the work carried out supplement the information.

## **General building authority test certificate (abP)**

In addition to the general building authority approval (abZ) and the approval in individual cases (ZiE), the general building authority test certificate (abP) is a proof of usability of non-regulated construction products and types of construction in accordance with the state building regulations of the German federal states and is identified on a construction product by the conformity mark.

A general building authority test certificate can be issued for construction products and types of construction whose use does not serve to fulfil significant requirements for the safety of structural systems or which are assessed according to generally recognised test method.

The type of certificate of usability required is published in the Building Rules List by the German Institute for Building Technology (DIBt) together with the relevant technical rules in agreement with the supreme building supervisory authority. A general building authority test certificate is issued by a test centre recognised by the building authorities for non-regulated construction products or types of construction if their usability has been proven.

The proof of usability in the form of a general building authority test certificate is only valid if the construction complies with the assembly and installation guidelines described therein and the structural requirements. Furthermore, the period of validity is limited: from a building law perspective, the validity until the time of construction is relevant; from a civil law perspective, the validity must be at least for the duration of the execution and installation of the construction work until approval.

## **General building authority approval (abZ)**

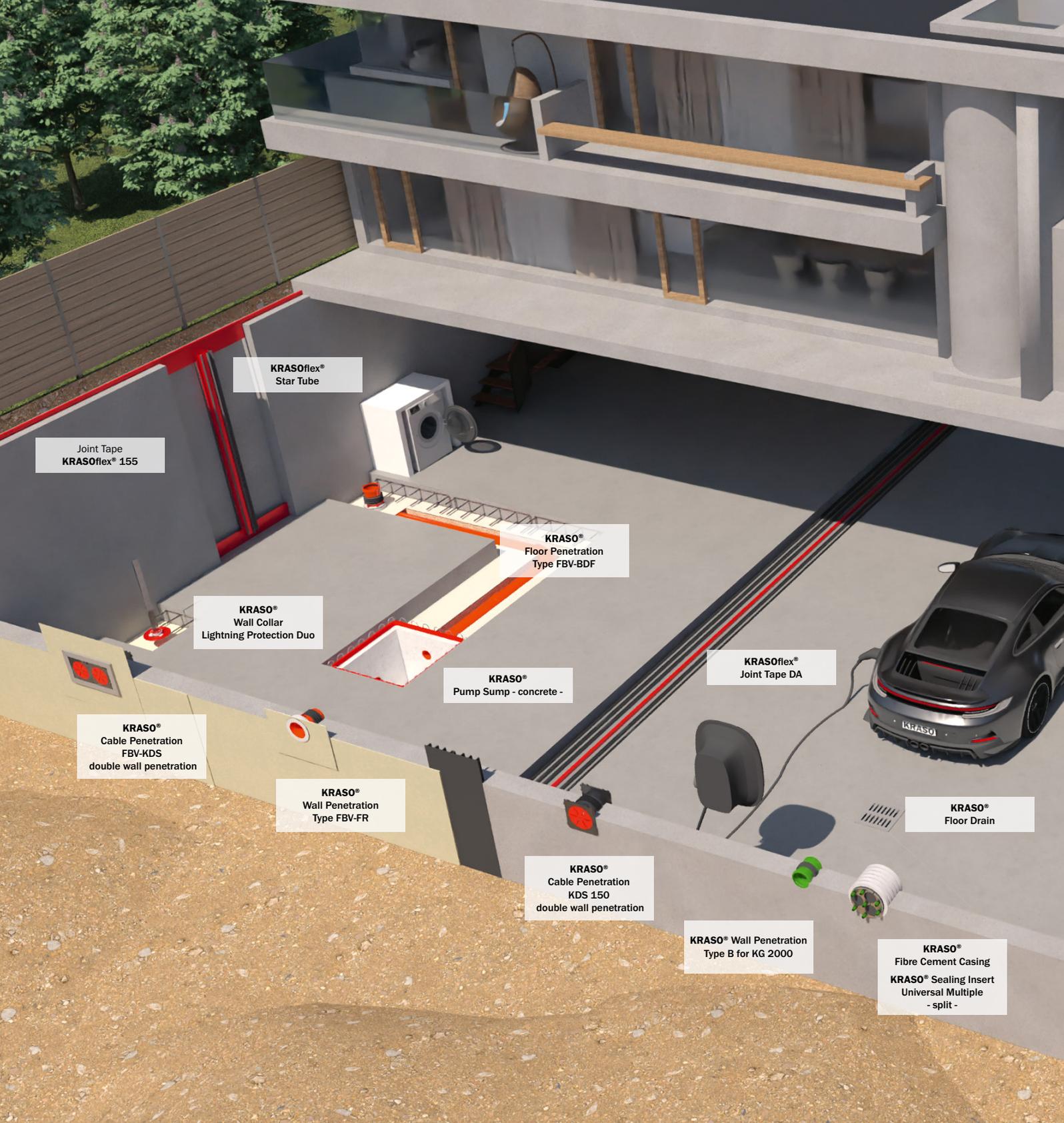
The general building authority approval (abZ) is a certificate of usability for construction products issued by the building authorities. The aim of the approval is to guarantee the safe usability of innovative and other construction products. General building authority approvals are issued by the German Institute for Building Technology (DIBt) on application, if necessary in combination with a general type of construction approval.

The legal basis for the granting of general building authority approvals (and general type of construction approvals) are the German federal state building regulations. In some cases, water law aspects are also dealt with as part of the DIBt's general building authority approvals (and general type of construction approvals).

The relevant legal bases here are the Federal Water Act (WHG) and the Ordinance on Requirements for the Discharge of Waste Water into Water Bodies (AbwV) at federal level as well as the federal state ordinances for determining the suitability of construction products and types of construction under water law by means of verification in accordance with the respective federal state building regulations (WasBauPVO).

## **Regulation on installations for handling substances hazardous to water (AwSV)**

The Ordinance on Installations for the Handling of Substances Hazardous to Water (AwSV) is an ordinance issued by the German Federal Government to protect water from substances hazardous to water released from stationary installations. It thus serves to implement the Water Framework Directive (WFD) and the Nitrates Directive of the European Union, among other things. To this end, it regulates the classification of substances and their mixtures according to their hazardousness for water bodies, technical and organisational requirements for facilities handling such substances and requirements for experts, specialist inspectors and specialist companies to be used in this context.



## KRASO® Sealing Solutions

### Safe planning and execution of sealings

- + **KRASO®** offers the perfect solution for all critical points in waterproof constructions: from pump sumps and lift pits as precast concrete parts to extensive joint sealing systems, water pressure tight and gas-tight utility entries and utility outlets up to the retrofit sealing of various cables and pipes.
- + Consulting + Planning + Production: **KRASO®** supports you in the realisation of your construction project with state-of-the-art sealing technology system solutions, compliant with the DafStB waterproof concrete guideline. From consulting and planning to on-time delivery of our sealing systems.



**KRASO®**  
Swan Neck

**KRASO®**  
WP-DUO

**KRASO®**  
Builder's Convenience Box  
- floor - 

**KRASOflex®**  
Joint Plate ZVB

**KRASO®**  
Sealing Insert  
Type IN-GR

# We look forward to your enquiry

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- + [export@kraso.de](mailto:export@kraso.de)



# Tested products – proven on site

- + With more than 40 years of experience in sealing technology, thousands of convinced customers and successfully sealed buildings we know what really matters: simple and tight!  
Following our own philosophy, our products must be simple in use with a reliable sealing.
- + We offer a complete and co-ordinated product range for the secure sealing of buildings - always paying close attention to the highest quality standards in construction, material and production!
- + The quality of our products is regularly verified by independent institutes! Tested in the laboratory and proven on the construction site - always be on the safe side with **KRASO® Products**.



**KRASO®** Products with the “**FHRK Quality**” seal satisfy the test principles of the **Fachverband Hauseinführungen für Rohre und Kabel e.V. (FHRK e. V.)**. The tests cover all loads to which sealing inserts, utility connection systems, pipe penetrations and casings are exposed: these include, among other things, standards regarding impermeability to gas and water, abrasion resistance when filling the casing or durability when compressing the excavation pit.



**KRASO®** Products with the “**FHRK Radon Tight**” seal have been tested in accordance with FHRK and/or DVGW testing principles regarding gas and water tightness and also have successfully completed an IAF test for diffusion resistance. Products with this seal are considered to be radon-tight!



The **KRASO® Builder's Convenience Box** has the approval from **DVGW (German Technical and Scientific Association for Gas and Water)** according to **DVGW VP 601** as utility connection for gas and water and therefore fulfils all directives for a gas- and water pressure tight installation.



As far as our wall and pipe penetrations are concerned, our **KRASO® 4 Seal** reliably protects against pressing water: the material testing institute certifies a water pressure tightness up to **10 bar**! Due to its construction, the **KRASO® 4 Seal** is mechanically fixed with the concrete. The monolithic (force-fit) connection to the solid wall pipe completely prevents underflow or leakage due to pressing water.



Whether **KRASO® Pump Sumps** made of concrete, Flange Pipes, Tie Points or Sealing Inserts: they all offer reliable protection against pressing water due to their construction, material and processing. All these products have been tested by independent material testing institutes regarding their water pressure tightness and are water pressure tight up to **10 bar**!



Not only against pressing water – **KRASO® Sealing Inserts** are gas- and odour-tight and therefore rated high-quality in terms of **TA-Air**! Due to a successful examination in a material testing institute, our sealing inserts fulfil the administrative regulation to the Federal Immission Control Act: “Technical Instructions on Air Quality Control”.



**Radon (Rn)** is a radioactive noble gas that occurs in rock earth and can enter basement rooms through leakages. Radon is the second most reason for lung cancer. Pipe penetrations with **KRASO® 4 Seal** and **KRASO® Sealing Inserts** are gas-tight and protect securely against radon: IAF-tested!



The DVGW research centre at the Engler-Bunte Institute (EBI) of the Karlsruhe Institute of Technology has tested **KRASO® Sealing Inserts** according to **DIN EN 13611 (chapter 7.2)** and confirmed their gas-tightness. This means that our sealing inserts fulfil important criteria of the German Technical and Scientific Association for Gas and Water.



The fire resistance class indicates the categorisation of building materials and components according to their fire resistance as regulated by the DIN standard. It consists of the code letter “F” and the duration of functional integrity in the event of fire in minutes. The fire resistance class **F 180** stands for a “highly fire resistant” component with 180 minutes of functional integrity.



The “**general building authority test certificate**” (abP) and the “**general building authority approval**” (abZ) ensure compliance with building regulations and the usability of building products based on state building regulations or the model building regulations.



Products with Torque Control Nut **KRASO® DKM** can be installed without a torque wrench. The **KRASO® DKM** specifies the appropriate torque, which makes installation extremely easy and helps to avoid installation errors.



The material quality seal of **Warenzeichenverband Edelstahl Rostfrei e. V.** confirms the correct use of materials and correct processing of non-corrosive stainless steel in our products.





# Sealing Inserts

## + White Tank Solutions

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## + Black Tank Solutions

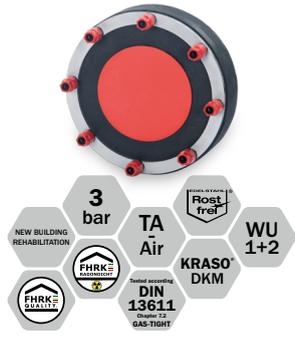
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# KRASO® Sealing Inserts Simply just better

- + 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 even pressure distribution.
- + **Torque Control Nut KRASO® DKM:** integrated torque limiter - no torque wrench required!
- + Tested gas-tight according to 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 reliably against pressing 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
- + Certified with the quality seal of the FHRK e. V.
- + **KRASO® Sealing Insert Configurator** – simple and fast: configure the matching sealing insert online or via our app!

**KRASO® Sealing Insert  
Universal DD**



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



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



**KRASO® Sealing Insert  
Type GR**



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



**KRASO® Sealing Insert  
Type SD**



**KRASO® Sealing Insert  
Type TD-X**



- Patented technology!  
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: no torque wrench required!
  - + Can be loosened and retightened with automatic torque limitation!
  - + Over-twisting and fretting: impossible!



**KRASO® Sealing Insert Universal DD**  
Check the installation video  
(Just scan 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 40 mm rubber seal, welded-on studs instead of through bolts
- + **Torque Control Nut KRASO® DKM:** integrated torque limiter - no torque wrench required!
- + MPA-tested: protects reliably against pressing water up to 3 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!
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2



Universal 80 DD



Universal 100 DD



Universal 100 DD/T



Universal 110 DD



Universal 110 DD/T



Universal 150 DD



Universal 150 DD/T



Universal 160 DD/T



Universal 200 DD



Universal 200 DD/T



Universal 250 DD



Universal 250 DD/T



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

for installation of cables or pipes, double sealing against pressing water up to 3 bar. Can also be used as blind plug until later installation of cables or pipes (except **KRASO® Universal 250 DD** and **Universal 250 DD/T**) | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® Universal DD                                    |  |   |  |   |  |
|---|--|--|---|--|---|--|
| Core drilling / casing in mm  | Universal 80 DD  | Universal 100 DD                                       | Universal 100 DD/T<br><small>(split design for retrofit installation)</small> | Universal 110 DD                                       | Universal 110 DD/T<br><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) | stepless onion ring technology:<br>18 - 43 mm or blind | stepless onion ring technology:<br>18 - 65 mm or blind | stepless onion ring technology:<br>18 - 65 mm or blind                        | stepless onion ring technology:<br>18 - 75 mm or blind | stepless onion ring technology:<br>18 - 75 mm or blind                        | 110 DN 110 KG pipe, DN 110 SML pipe<br>90 DN 80 steel pipe, PE pipe<br>75 DN 70 HT pipe<br>blind |
| <b>KRASO® Universal DD</b>  | <b>52 €</b>  | <b>56 €</b>  | <b>62 €</b>   | <b>61 €</b>  | <b>67 €</b>   | <b>84 €</b>  |

| Item  | KRASO® Universal DD   |   |  |   |   |   |
|---|---|---|--|---|---|---|
| Core drilling / casing in mm  | Universal 150 DD/T<br><small>(split design for retrofit installation)</small> | Universal 160 DD/T<br><small>(split design for retrofit installation)</small> | Universal 200 DD   | Universal 200 DD/T<br><small>(split design for retrofit installation)</small> | Universal 250 DD  | Universal 250 DD/T<br><small>(split design for retrofit installation)</small>   |
| A sealing insert for all pipes or cables listed in the table on the right (in mm) | stepless onion ring technology:<br>75 - 110 mm or blind                       | stepless onion ring technology:<br>75 - 110 mm or blind                       | 160 DN 160 KG pipe, DN 160 SML pipe<br>135 DN 125 SML pipe<br>125 DN 125 KG pipe<br>110 DN 110 KG pipe, DN 110 SML pipe<br>blind | stepless onion ring technology:<br>110 - 160 mm or blind                      | 210 DN 200 SML pipe<br>200 DN 200 KG pipe, DN 200 KG 2000<br>180 DN 170 PE pipe<br>170 steel/cast pipe<br>160 DN 160 KG pipe, DN 160 SML pipe | 210 DN 200 SML pipe<br>200 DN 200 KG pipe, DN 200 KG 2000<br>180 DN 170 PE pipe<br>170 steel/cast pipe<br>160 DN 160 KG pipe, DN 160 SML pipe |
| <b>KRASO® Universal DD</b>  | <b>96 €</b>   | <b>106 €</b>  | <b>113 €</b>   | <b>124 €</b>  | <b>144 €</b>  | <b>158 €</b>  |



## KRASO® Sealing Insert Universal 150 K - split - **LG 1**

for installation of cables or pipes, split design for retrofit installation, stepless onion ring technology for diameters from 12 - 75 mm, double sealing against pressing water up to 3 bar, can also be used as blind plug until later installation of cables or pipes | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® Universal 150 K - split - |
|---|----------------------------------|
| Core drilling / casing in mm  | 150                              |
| A sealing insert for all pipes or cables listed in the table on the right (in mm) | 1 x 12 - 75 mm or blind          |
| <b>KRASO® Universal 150 K - split -</b>   | <b>123 €</b>                     |



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

for simultaneous installation of up to 5 cables or pipes, double sealing against pressing water up to 3 bar, **Torque Control Nut KRASO® DKM**, non-corrosive stainless steel V2A, 40 mm seal. Can also be used as blind plug until later installation of pipes or cables | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® Universal DD/M  |
|---|--|
| Core drilling / 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<br>1 x 11 - 13 mm or blind<br>1 x 14 - 16 mm or blind<br>1 x 17 - 19 mm or blind<br>and 1 x stepless onion ring technology: 20 - 35 mm or blind |
| <b>KRASO® Universal DD/M</b>  | <b>72 €</b>  |



**KRASO® Sealing Insert**  
Type ED + DD + VD  
Check the installation video  
(Just scan the QR code!)



KRASO® Type DD



**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 bar, 20 mm seal (**KRASO® Type ED, KRASO® Type ED/T**), double sealing, against pressing water up to 3 bar, 40 mm seal (**KRASO® Type DD, KRASO® Type DD/T**), quadruple sealing, against pressing water up to 8 bar, 80 mm seal (**KRASO® Type VD**) | DafStB waterproof concrete guideline: stress class 1 + 2

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

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

Usually ready for  
dispatch  
within 24 hours!



**KRASO® Sealing Insert Type SD**  
Check the installation video  
(Just scan the QR code!)



KRASO® Type SD 60 - T split



## KRASO® Sealing Insert Type SD

### The solution for special situations

- + For core drillings and casings
- + Individual and custom-made solution: with large flange or split!
- + MPA-tested: protects reliably against pressing 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!
- + Certified with the quality seal of the FHRK e. V.
- + With arrangement template: see the arrangement at a glance!
- + Generally available within 24 hours!
- + Available at an additional charge: 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\* | DafStB waterproof concrete guideline: stress class 1 + 2

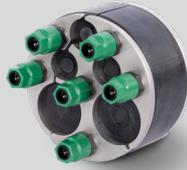
| Core drilling / casing in mm<br>(from - to) | 50<br>(49 - 52)   | 60<br>(59 - 62) | 70<br>(69 - 72) | 80<br>(79 - 83) | 100<br>(99 - 103) | 125<br>(124 - 128) | 150<br>(149 - 153) | 200<br>(198 - 203) | 250<br>(248 - 253) | 300<br>(298 - 303) | 350<br>(348 - 353) | 400<br>(398 - 403) | 450<br>(448 - 453) | 500<br>(497 - 503) |
|---|---|-----------------|-----------------|-----------------|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| 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                |
| <b>KRASO® Type SD 30</b>                    |   |                 |                 |                 |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| KRASO® Type SD 30                           | 100 €   | 100 €           | 100 €           | 108 €           | 108 €             | 137 €              | 156 €              | 202 €              | 272 €              | 348 €              | 417 €              | 478 €              | 563 €              | 627 €              |
| KRASO® Type SD 30 - T                       | 115 €   | 115 €           | 115 €           | 124 €           | 124 €             | 158 €              | 179 €              | 233 €              | 312 €              | 399 €              | 480 €              | 549 €              | 648 €              | 720 €              |
| KRASO® Type SD 30 - GF                      | 110 €   | 110 €           | 110 €           | 118 €           | 118 €             | 152 €              | 171 €              | 222 €              | 299 €              | 381 €              | 459 €              | 525 €              | 619 €              | 689 €              |
| <b>KRASO® Type SD 60</b>                    |   |                 |                 |                 |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| KRASO® Type SD 60                           | 134 €   | 144 €           | 144 €           | 144 €           | 154 €             | 189 €              | 222 €              | 286 €              | 372 €              | 487 €              | 566 €              | 631 €              | 746 €              | 873 €              |
| KRASO® Type SD 60 - T                       | 155 €   | 165 €           | 165 €           | 165 €           | 177 €             | 217 €              | 255 €              | 329 €              | 426 €              | 561 €              | 652 €              | 725 €              | 858 €              | 1,004 €            |
| KRASO® Type SD 60 - GF                      | 147 €   | 158 €           | 158 €           | 158 €           | 169 €             | 209 €              | 243 €              | 315 €              | 409 €              | 536 €              | 623 €              | 694 €              | 820 €              | 960 €              |
| Surcharge: additional drilling              | up to 5 drillings each additional drilling 18 €, each further additional drilling 11.50 € |                 |                 |                 |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |

\* In some cases, allen screws must be used due to the design.

**All sizes and diameters available on request!**



KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 1



KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 2



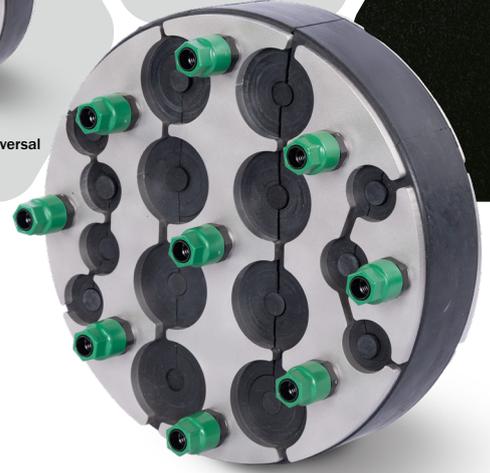
KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 3



KRASO® Sealing Insert Universal  
Multiple - split - 150  
Design 2



KRASO® Sealing Insert Universal  
Multiple - split - 150  
Design 1



KRASO® Sealing Insert Universal  
Multiple - split - 200  
Design 2

Stepless onion  
ring technology!



## KRASO® Sealing Insert Universal Multiple - split - Universally usable – multiply flexible

- + For core drillings and casings
- + Stepless onion ring technology: universally usable for various external diameters of media lines/cables - also for multiple installation! 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:** integrated torque limiter - no torque wrench required!
- + MPA-tested: protects reliably against pressing 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!
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2

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

for the installation of several media lines/cables, split design for retrofit installation | DafStB waterproof concrete guideline: stress class 1 + 2

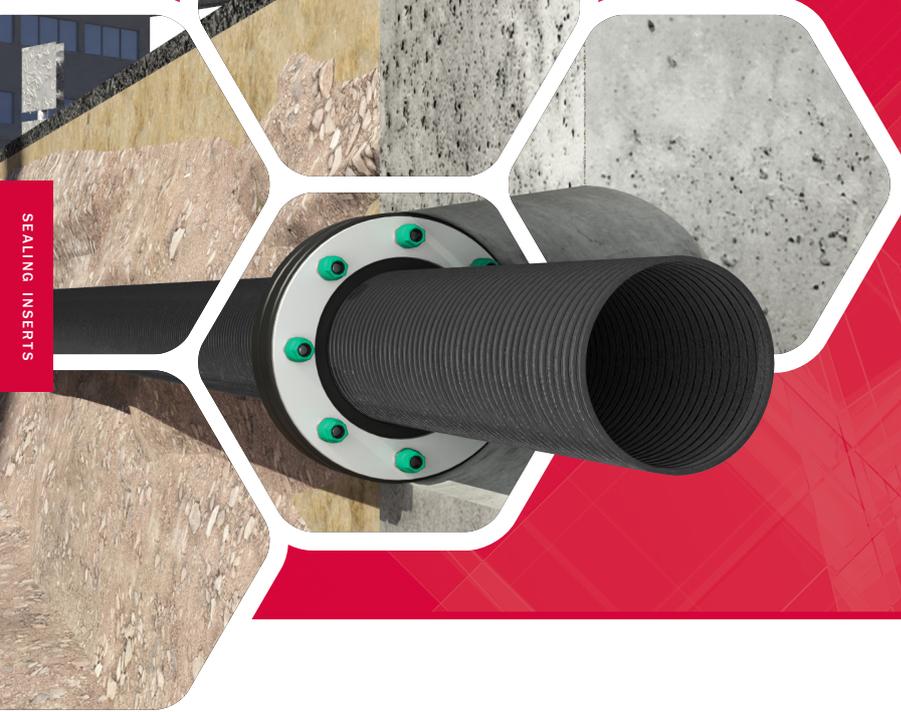
| Item  | KRASO® Sealing Insert Universal Multiple - split -                            |                        |  |  |
|---|---|------------------------|--|--|
|   | 100   | 125                    | 150  | 200  |
| Core drilling / casing in mm                              | 100   | 125                    | 150  | 200  |
|   | stepless onion ring technology: external cable diameter 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<br>4 x 6 - 52 mm or blind |
| Design 2  | 3 x 6 - 18 mm or blind<br>2 x 6 - 33 mm or blind                              | -                      | 4 x 6 - 18 mm or blind<br>6 x 6 - 33 mm or blind | 7 x 6 - 18 mm or blind<br>8 x 6 - 33 mm or blind |
| Design 3  | 8 x 6 - 18 mm or blind  | -                      | 6 x 6 - 38 mm or blind                           | -  |
| <b>KRASO® Sealing Insert Universal Multiple - split -</b> | <b>107 €</b>  | <b>115 €</b>           | <b>162 €</b>                                     | <b>251 €</b>                                     |

Further arrangements available at short notice!



**KRASO® Sealing Insert Type GR**  
Check the installation video  
(Just scan the QR code!)

Specially for  
ribbed media pipes



## KRASO® Sealing Insert Type GR

### The sealing insert for ribbed media pipes

- + For core drillings and casings
- + For corrugated and ribbed pipes!
- + With a specially developed soft rubber seal – double sealing with 40 mm seal or quadruple sealing with 80 mm seal – and central pressure disk for even pressure distribution
- + **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 reliably against pressing water up to 1 bar / 2 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
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2



KRASO® Type DD/GR  
ribbed media pipes



KRASO® Type VD/GR  
ribbed media pipes

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

for installation of ripped or corrugated media pipes | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | KRASO® Type DD/GR • KRASO® Type VD/GR |                    |                    |                    |                      |                      |                      |                      |                      |
|---|---------------------------------------|--------------------|--------------------|--------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
|   | 100<br>(99 - 103)                     | 125<br>(124 - 128) | 150<br>(149 - 153) | 200<br>(198 - 203) | 250<br>(248 - 253)   | 300<br>(298 - 303)   | 350<br>(348 - 353)   | 400<br>(398 - 403)   | 500<br>(497 - 503)   |
| Core drilling / casing in mm<br>(from - to)                   |                                       |                    |                    |                    |                      |                      |                      |                      |                      |
| max. external diameter pipe or cable<br>from ... to ... in mm | 0 - 75                                | 0 - 100            | 0 - 125            | 0 - 175            | 0 - 225 <sup>1</sup> | 0 - 275 <sup>1</sup> | 0 - 325 <sup>1</sup> | 0 - 375 <sup>1</sup> | 0 - 475 <sup>1</sup> |
| <b>KRASO® Type DD/GR (40 mm)</b>                              | <b>123 €</b>                          | <b>151 €</b>       | <b>178 €</b>       | <b>224 €</b>       | <b>260 €</b>         | <b>378 €</b>         | <b>449 €</b>         | <b>521 €</b>         | <b>655 €</b>         |
| <b>KRASO® Type VD/GR (80 mm)</b>                              | <b>155 €</b>                          | <b>189 €</b>       | <b>224 €</b>       | <b>281 €</b>       | <b>326 €</b>         | <b>474 €</b>         | <b>558 €</b>         | <b>647 €</b>         | <b>814 €</b>         |

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

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

## Inner seal for ribbed media pipes



## KRASO® Sealing Insert Type IN-GR® - split - Inner seal for ribbed media pipes

- + Sealing insert for the internal sealing of one or several media lines in cable protective hoses Type-R
- + Stepless onion ring technology: universally suitable for a wide range of external diameters of media lines/ cables – even for multiple installation! Split design for retrofit installation!
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + Certified with the quality seal of the FHRK e. V.
- + Non-corrosive stainless steel V2A, 30 mm seal
- + DafStB waterproof concrete guideline: stress class 1 + 2

Stepless onion ring technology!  
Example  
**KRASO® Sealing Insert Type IN-GR® DN 110 - split -**  
1 x 5 - 18 mm, 1 x 5 - 38 mm

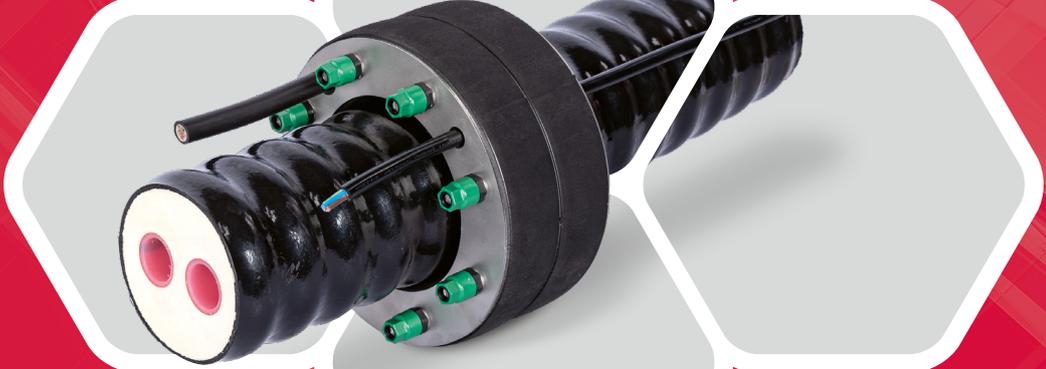


### KRASO® Sealing Insert Type IN-GR® - split **LG 1**

inner seal for cable protective hoses Type-R/corrugated pipes for the installation of one or several media lines or cables | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® Type IN-GR® - split - |                           |  |                           |                           |                           |                           |
|---|------------------------------|---------------------------|--|---------------------------|---------------------------|---------------------------|---------------------------|
| Corrugated pipe diameter DN in mm<br>(internal diameter in mm)                      | 90<br>(75)                   | 110<br>(92)               | 110<br>(92)                                | 110<br>(92)               | 160<br>(136)              | 160<br>(136)              | 160<br>(136)              |
| Stepless onion ring technology:<br>external diameter cable from ... to ...<br>in mm | 1 x 5 - 33 mm<br>or blind    | 1 x 5 - 48 mm<br>or blind | 1 x 5 - 18 mm<br>1 x 5 - 38 mm<br>or blind | 4 x 5 - 18 mm<br>or blind | 3 x 5 - 43 mm<br>or blind | 4 x 5 - 38 mm<br>or blind | 6 x 5 - 33 mm<br>or blind |
| <b>KRASO® Type IN-GR® - split -</b>   | <b>89 €</b>                  | <b>95 €</b>               | <b>118 €</b>                               | <b>118 €</b>              | <b>145 €</b>              | <b>145 €</b>              | <b>145 €</b>              |

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



Example:  
**KRASO® Type VD/FW**  
with optional additional drillings  
for electricity and control cables



NEW BUILDING REHABILITATION

5 bar

TA Air

ROSTFREI

KRASO® DKM

# KRASO® Sealing Insert Type VD/FW

## Effective sealing for district heating connections

- + For core drillings and casings
- + For the sealing of local and district heating connections in the wall
- + For insulated district heating lines: smooth, corrugated or ribbed
- + Extra soft rubber seal: shore hardness 40 A
- + 80 mm seal width (2 x 40 mm): against pressing water up to 5 bar!
- + **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!
- + Optional: additional drillings for cables
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Sealing Insert Type VD/FW **LG1**

for the installation of local and district heating lines and additional control cables (optional) | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® Type VD/FW         |              |              |              |
|--|---------------------------|--------------|--------------|--------------|
| Core drilling / casing in mm                               | 150                       | 200          | 250          | 300          |
| max. external diameter pipe or cable from ... to ... in mm | 0 - 125                   | 0 - 175      | 0 - 225      | 0 - 275      |
| <b>KRASO® Type VD/FW</b>                                   | <b>224 €</b>              | <b>281 €</b> | <b>326 €</b> | <b>474 €</b> |
| Surcharge: additional drillings for cable                  | <b>each drilling 27 €</b> |              |              |              |

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
- + 20% thicker steel plates made of non-corrosive stainless steel V2A!
- + Triple sealing with 60 mm seal made of specially developed sealing rubber!
- + Two circular pressure discs guarantee optimal pressure distribution!
- + 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 reliably against pressing 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!
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Sealing Insert Type TD-X **LG1**

for installation of pipes, Torque Control Nut **KRASO® DKM\*** | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® Type TD-X |              |              |              |              |              |              |              |              |                |
|--|------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|----------------|
|  | 80               | 100          | 125          | 150          | 200          | 250          | 300          | 350          | 400          | 500            |
| Core drilling / casing in mm<br>(from - to)                      | (79 - 83)        | (99 - 103)   | (124 - 128)  | (149 - 153)  | (198 - 203)  | (248 - 253)  | (298 - 303)  | (348 - 353)  | (398 - 403)  | (497 - 503)    |
| max. external diameter<br>pipe or cable<br>from ... to ... in mm | 0 - 55           | 0 - 75       | 0 - 100      | 0 - 125      | 0 - 175      | 0 - 225      | 0 - 275      | 0 - 325      | 0 - 375      | 0 - 475        |
| <b>KRASO® Type TD-X</b>  | <b>127 €</b>     | <b>143 €</b> | <b>167 €</b> | <b>200 €</b> | <b>264 €</b> | <b>318 €</b> | <b>469 €</b> | <b>589 €</b> | <b>709 €</b> | <b>1,004 €</b> |

\* In some cases, allen screws must be used due to the design

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



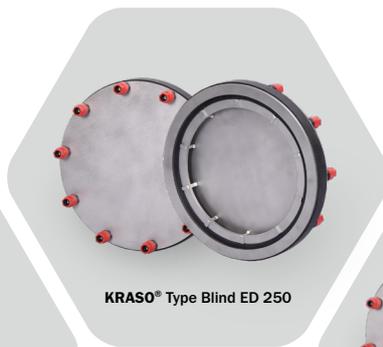
## KRASO® Sealing Insert Type FIX **LG 1**

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 bar, 20 mm seal (**KRASO® Type ED/FIX**), double sealing, against pressing water up to 3 bar, 40 mm seal (**KRASO® Type DD/FIX**) | DafStB waterproof concrete guideline: stress class 1 + 2

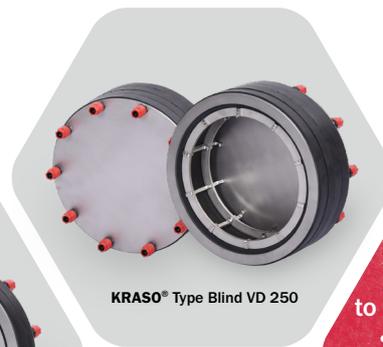
| Item   | KRASO® Type ED/FIX • KRASO® Type DD/FIX |            |             |             |             |             |             |             |             |             |
|--|---|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|  | 80                                      | 100        | 125         | 150         | 200         | 250         | 300         | 350         | 400         | 500         |
| Core drilling / casing in mm<br>(from - to)                      | (79 - 83)                               | (99 - 103) | (124 - 128) | (149 - 153) | (198 - 203) | (248 - 253) | (298 - 303) | (348 - 353) | (398 - 403) | (497 - 503) |
| max. external diameter<br>pipe or cable<br>from ... to ... in mm | 0 - 55                                  | 0 - 75     | 0 - 100     | 0 - 125     | 0 - 175     | 0 - 225     | 0 - 275     | 0 - 325     | 0 - 375     | 0 - 475     |
| <b>KRASO® Type ED/FIX</b>  | 64 €                                    | 70 €       | 84 €        | 100 €       | 131 €       | 160 €       | 234 €       | 294 €       | 354 €       | 503 €       |
| <b>KRASO® Type DD/FIX</b>  | 96 €                                    | 108 €      | 126 €       | 150 €       | 198 €       | 239 €       | 351 €       | 442 €       | 533 €       | 754 €       |

\* In some cases, allen screws must be used due to the design

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



KRASO® Type Blind ED 250



KRASO® Type Blind VD 250



KRASO® Type Blind DD 250

With inner core  
to distribute the pressure:

- lower installation weight
- easy installation
- perfect pressure distribution



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 bar, 20 mm seal (**KRASO® Type Blind ED**), double sealing, against pressing water up to 3 bar, 40 mm seal (**KRASO® Type Blind DD**), quadruple sealing, against pressing water up to 8 bar, 80 mm seal (**KRASO® Type Blind VD**), from DN 250 with central distribution plate: lower installation weight, easier installation, perfect pressure distribution | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | KRASO® Type Blind ED • KRASO® Type Blind DD • KRASO® Type Blind VD |            |             |             |             |             |             |             |             |             |
|---|--|------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
|   | 80   | 100        | 125         | 150         | 200         | 250         | 300         | 350         | 400         | 500         |
| Core drilling / casing in mm<br>(from - to) | (79 - 83)  | (99 - 103) | (124 - 128) | (149 - 153) | (198 - 203) | (248 - 253) | (298 - 303) | (348 - 353) | (398 - 403) | (497 - 503) |
| <b>KRASO® Type Blind ED</b><br>(20 mm seal) | 56 €   | 62 €       | 76 €        | 85 €        | 117 €       | 138 €       | 180 €       | 196 €       | 211 €       | 304 €       |
| <b>KRASO® Type Blind DD</b><br>(40 mm seal) | 67 €   | 77 €       | 95 €        | 112 €       | 141 €       | 164 €       | 238 €       | 283 €       | 328 €       | 411 €       |
| <b>KRASO® Type Blind VD</b><br>(80 mm seal) | 84 €   | 96 €       | 118 €       | 140 €       | 176 €       | 205 €       | 297 €       | 353 €       | 410 €       | 514 €       |

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



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 classes 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 to DIN 18533 W1 -E or W2 -E.
- + According to 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.

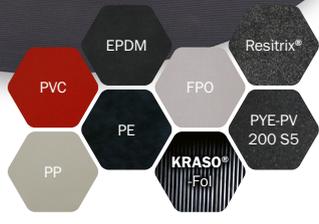
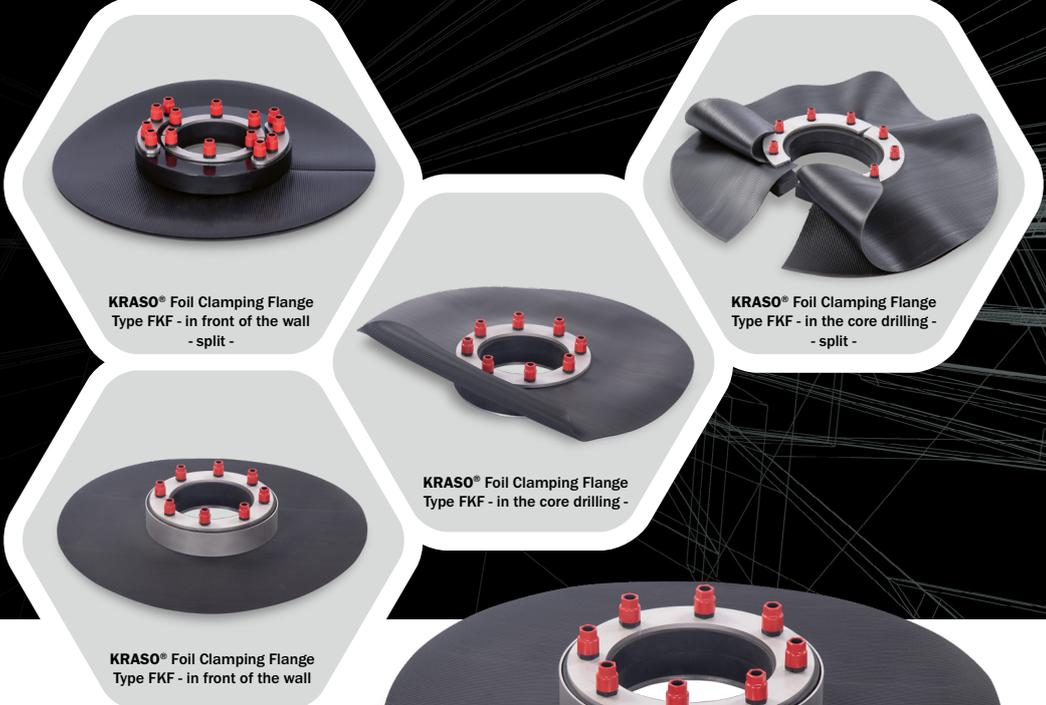
### Your advantages

- + Cost-effective, saves time and money
- + Test-certificate from material testing institute in North-Rhine-Westphalia: water pressure tight up to 2.5 bar
- + We are able to adjust the type of sealing sheets or foils individually
- + Noticeably 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 buildings and rehabilitation

# The alternative to a fixed-loose flange!



**KRASO®**  
Foil Clamping Flange Type FKF  
Check the installation video  
(Just scan the QR code!)



## KRASO® Foil Clamping Flange Type FKF

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

- + Innovative: water pressure tight sealing of any even and stable cable with our **KRASO® Foil Clamping Flange Type FKF** foil flange!
- + Suitable for all external diameters of media lines and for all materials!
- + We can individually customise 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 buildings and rehabilitation! Various designs for almost every situation!
- + Simple and fast mounting!
- + MPA-tested: water pressure tight up to 2.5 bar!
- + Certified with the quality seal of the FHRK e. V.
- + DIN 18533 W1 -E and W2.1 -E



Included in the scope of supply  
**KRASO® PU 50** - high-quality sealant  
 - pressure roller  
 - serrated spatula  
 - pencil for marking

### KRASO® Foil Clamping Flange Type FKF **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, 30 mm seal | DIN 18533 W1 -E and W2.1 -E

| Core drilling / casing in mm | (from - to) | max. external diameter pipe or cable from ... to ... in mm | 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 - |
|------------------------------|-------------|--|---|---|---|---|
| 80                           | (79 - 83)   | 0 - 40   | 219 €   | 297 €   | 219 €   | 241 €   |
| 100                          | (99 - 103)  | 0 - 63   | 231 €   | 332 €   | 231 €   | 254 €   |
| 125                          | (124 - 128) | 0 - 80   | 265 €   | 377 €   | 265 €   | 291 €   |
| 150                          | (149 - 153) | 0 - 110  | 321 €   | 446 €   | 321 €   | 354 €   |
| 200                          | (198 - 203) | 0 - 160  | 402 €   | 561 €   | 402 €   | 441 €   |
| 250                          | (248 - 253) | 0 - 210  | 548 €   | 783 €   | 548 €   | 602 €   |
| 300                          | (298 - 303) | 0 - 250  | 753 €   | 1,022 €   | 753 €   | 828 €   |

**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

SEALING INSERTS

## KRASO® Foil Clamping Flange Type FKF DD/GR **LG1**

for the sealing of media of all kinds of material 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 especially soft seal, central pressure distribution plate for even pressure distribution with corrugated media pipes, against pressing water up to 1 bar, **Torque Control Nut KRASO® DKM**, non-corrosive stainless steel V2A | **DIN 18533 W1-E and W2.1-E**

| Core drilling / casing in mm | max. external diameter pipe or cable from ... to ... in mm | KRASO®   | KRASO®   | KRASO®   | KRASO®   |
|------------------------------|--|--|--|--|--|
|                              |  | Foil Clamping Flange Type FKF DD/GR - in front of the wall - | Foil Clamping Flange Type FKF DD/GR - in front of the wall - split - | Foil Clamping Flange Type FKF DD/GR - in the core drilling - | Foil Clamping Flange Type FKF DD/GR - in the core drilling - split - |
| 100 (99 - 103)               | 0 - 63   | 311 €  | 426 €  | 311 €  | 331 €  |
| 125 (124 - 128)              | 0 - 80   | 357 €  | 491 €  | 357 €  | 378 €  |
| 150 (149 - 153)              | 0 - 110  | 434 €  | 595 €  | 434 €  | 457 €  |
| 200 (198 - 203)              | 0 - 160  | 542 €  | 745 €  | 542 €  | 571 €  |
| 250 (248 - 253)              | 0 - 200 <sup>1</sup>                                       | 739 €  | 1,016 €  | 739 €  | 833 €  |
| 300 (298 - 303)              | 0 - 250 <sup>1</sup>                                       | 1,017 €  | 1,397 €  | 1,017 €  | 1,098 €  |

<sup>1</sup> From 200 mm external diameter of the 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 **LG1**

for the sealing of media of all kinds of material in front of the 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 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**

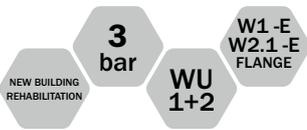
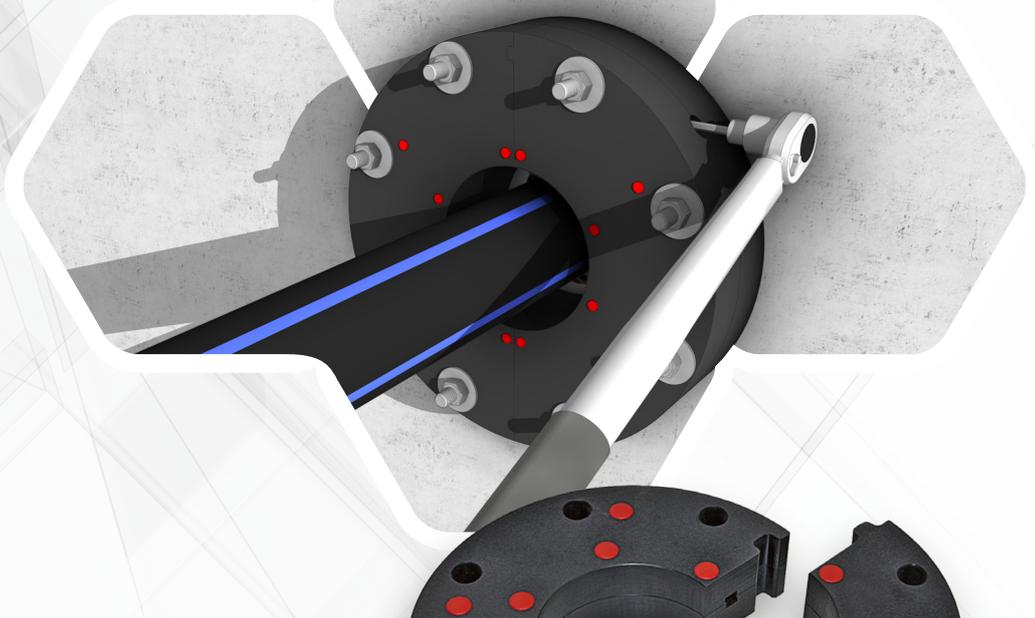
| External diameter or core drilling in mm  | KRASO® Foil Clamping Flange Type FKF Universal 100         | KRASO® Foil Clamping Flange Type FKF Universal 150 | KRASO® Foil Clamping Flange Type FKF Universal 200 | KRASO® Foil Clamping Flange Type FKF Universal 250 |
|---|--|--|--|--|
| A sealing insert for all pipes or cables listed in the table on the right (in mm) | stepless onion ring technology:<br><br>18 - 65 mm or blind | 110 (DN 110 KG pipe)<br>(DN 110 SML pipe)          | 160 (DN 160 KG pipe)<br>(DN 160 SML pipe)          | 210 (DN 200 SML pipe)                              |
|   |  | 90 (DN 80 steel pipe,<br>PE pipe)                  | 135 (DN 125 SML pipe)                              | 200 (DN 200 KG pipe)<br>(DN 200 KG 2000)           |
|   |  | 75 (DN 70 HT pipe)                                 | 125 (DN 125 KG pipe)                               | 180 (DN 170 PE pipe)                               |
|   |  | 0  | 110 (DN 110 KG pipe)<br>(DN 110 SML pipe)          | 170 (steel / cast iron pipe)                       |
|   |  |  | 0  | 160 (DN 160 KG pipe)<br>(DN 160 SML pipe)          |
| <b>KRASO® Type FKF Universal - in the core drilling -</b>                         | <b>203 €</b>   | <b>277 €</b>                                       | <b>339 €</b>                                       | <b>408 €</b>                                       |
| <b>KRASO® Type FKF Universal - in front of the wall -</b>                         | <b>203 €</b>   | <b>277 €</b>                                       | <b>339 €</b>                                       | <b>408 €</b>                                       |

**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 -  
Check the installation video  
(Just scan the QR code!)



## KRASO® Plastic Flange Plate Type KFP - split - A proven solution reinvented

- + Like a “split casing”: the flange plate made of high-strength special plastic can be installed retrospectively
- + No core drilling: no need for the separation of media pipes for installation!
- + Installation in front of a wall made of waterproof concrete or as **KRASO® Type KFP with foil flange** in front of a wall with sealing of larger areas
- + Easy installation by just one person thanks to the low weight!
- + Latest CNC production technology: absolute dimensional compliance – no tolerances like they are usual with solutions involving metal
- + Tongue and groove system: the two halves of the plastic flange plate pull together with 100% accurate fit automatically. Installation errors are thus avoided due to this innovation!
- + Subsequent sealing of the media lines in the plastic flange plate using a 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 - split -



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

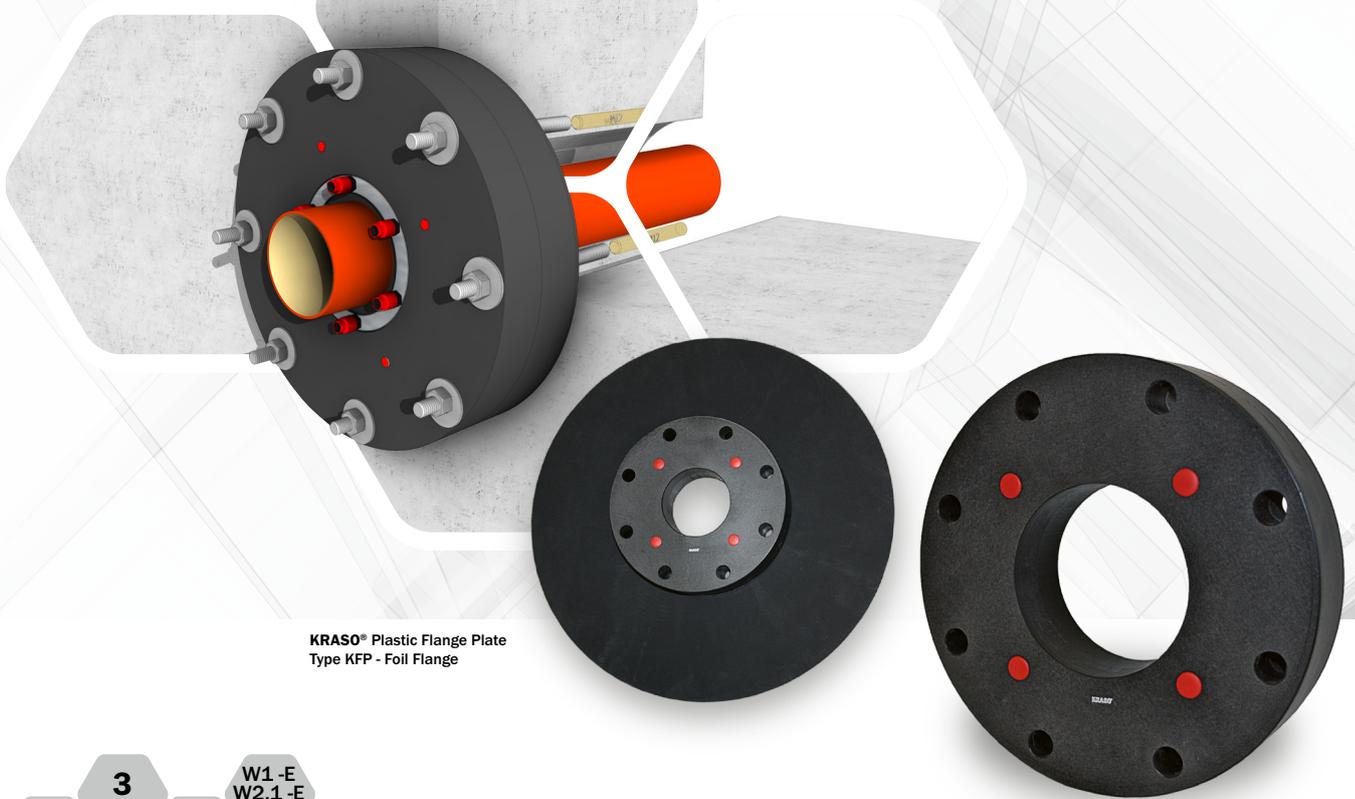
### KRASO® Plastic Flange Plate Type KFP - split - **LG 1**

for installation of pipes or cables using a sealing insert (not included in the scope of supply), ID = InternalDiameter  
| DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E and W2.1 -E

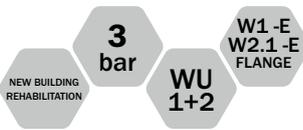
| Item   | KRASO® Type KFP - split - • KRASO® Type KFP - Foil Flange - split - |         |         |         |         |         |         |
|--|---|---------|---------|---------|---------|---------|---------|
| InternalDiameter ID  | 80  | 100     | 125     | 150     | 200     | 250     | 300     |
| 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 - split -               | 363 €   | 374 €   | 403 €   | 422 €   | 488 €   | 556 €   | 613 €   |
| KRASO® Plastic Flange Plate Type KFP - Foil Flange - split - | 454 €   | 469 €   | 505 €   | 527 €   | 611 €   | 696 €   | 765 €   |

**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!**



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

for installation of pipes or cables using a sealing insert (not included in the scope of supply), no core drilling required, EPDM flat seal, ID = InternalDiameter | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E and W2.1 -E

| Item   | KRASO® Type KFP • KRASO® Type KFP - Foil Flange |         |         |         |         |         |         |
|--|---|---------|---------|---------|---------|---------|---------|
|  | 80  | 100     | 125     | 150     | 200     | 250     | 300     |
| 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                       | 259 €   | 268 €   | 288 €   | 302 €   | 349 €   | 398 €   | 439 €   |
| KRASO® Plastic Flange Plate Type KFP - Foil Flange         | 325 €   | 334 €   | 360 €   | 378 €   | 438 €   | 496 €   | 548 €   |

**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  
reinvented!

## 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 a sealing insert

NEW BUILDING  
REHABILITATION

## KRASO® Core Drilling Sealing Additional protection for concrete

- + Protects reinforcing steel from corrosion
- + Prevents moisture penetration into concrete
- + Good hardening – even at low temperatures
- + UV, ageing and weather resistant



### KRASO® Core Drilling Sealing **LG6**

two-component PU cast resin, in a two-chamber bag, for protecting reinforcing steel in core drillings, including brush for application

| Item                                | KRASO® Core Drilling Sealing |             |             |
|-------------------------------------|------------------------------|-------------|-------------|
| Quantity in ml                      | 95                           | 240         | 400         |
| For area in m <sup>2</sup>          | approx. 0.6                  | approx. 1.5 | approx. 2.5 |
| <b>KRASO® Core Drilling Sealing</b> | <b>33 €</b>                  | <b>60 €</b> | <b>80 €</b> |

**Scope of supply:** KRASO® Core Drilling Sealing in a two-chamber bag, brush for application



**KRASO® Catalogue 2026** as Excel file  
Click here to download  
(Just scan the QR code!)



## The **KRASO®** Catalogue 2026 For your merchandise management system!

- + All **KRASO®** Products with all relevant data for your merchandise management system
- + Simply download as an Excel file from **KRASO.de**

### Important note

## **KRASO®** Sealing Inserts External diameter of the media lines

- + For the following sealing inserts, please determine the external diameter of the media line(s) and specify this when placing your order:
- + **KRASO®** Sealing Insert Type SD
- + **KRASO®** Sealing Insert Type GR
- + **KRASO®** Foil Clamping Flange Type FKF





For all standard wall types!



NEW BUILDING REHABILITATION

**1 bar**

W2.1 -E

WU 1+2

## KRASO® Inject Wall Penetrations Solutions for existing buildings

- + For retrofit installation: casings, empty pipes, wall penetrations with flow direction
- + Fast and easy installation: injection system with fast-curing expansion resin
- + Suitable for all common types of walls – also for hollow bricks
- + With sealing flange for exterior sealing (“black tank”)
- + Ideal for rehabilitation and new connections into existing buildings
- + Integrated torque control (IDK) – no torque wrench required
- + Version as
  - KRASO® Inject FE – thick-walled true diameter plastic casing
  - KRASO® Inject LR – empty pipe
  - KRASO® Inject FR – flow direction
- + Gas and water pressure tight up to 1 bar
- + DIN 18533 W2.1 -E (“moderate impact of pressing water”)
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Inject FE **LG 6**

recess for retrofit installation of cables and pipes using a sealing insert (not included in the scope of supply), with injection system | DIN 18533 W2.1 -E, DafStB waterproof concrete guideline: stress class 1 + 2



| Item                                   | KRASO® Inject FE |              |
|--|------------------|--------------|
| Internal Diameter in mm                | 100              | 150          |
| Wall thickness from ... to ...         | 200 - 600        |              |
| Diameter core drilling min ... max ... | 149 - 153        | 199 - 203    |
| External diameter sealing flange       | 250              | 300          |
| <b>KRASO® Inject FE</b>                | <b>325 €</b>     | <b>495 €</b> |

**Scope of supply:** KRASO® Inject FE, including inject sealing insert with IDK (integrated torque control), thick-walled true diameter plastic casing, wall fixing ring, expansion resin (300 ml)

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

## KRASO® Inject LR **LG 6**

empty pipe as recess for retrofit installation of cables and pipes using a casing pipe end plug (electricity/water, telecommunication or fibreglass, with injection system | DIN 18533 W2.1 -E, DafStB waterproof concrete guideline: stress class 1 + 2



| Item  | KRASO® Inject LR        |  |   |
|---|-------------------------|--|---|
| Core drilling / casing in mm<br>(from - to)               | 100<br>(99 - 103)       |  |   |
| Wall thickness from ... to ...                            | 200 - 600 / 200 - 1,200 |  |   |
| External diameter sealing flange                          | 200                     |  |   |
| Casing pipe end plug, optional:                           | Electricity/water       | Telecommunication                      | Glass fibre   |
| External diameter in mm                                   | 25 - 63                 | 2 x 5 - 7<br>4 x 7 - 13<br>1 x 13 - 21 | 2 x 5 - 7<br>2 x 7 - 13<br>1 x 12 - 16<br>1 x 23 - 40 |
| <b>KRASO® Inject LR</b> for wall thickness 200 - 600 mm   | <b>195 €</b>            |  |   |
| <b>KRASO® Inject LR</b> for wall thickness 200 - 1,200 mm | <b>295 €</b>            |  |   |

**Scope of supply:** KRASO® Inject LR, including inject sealing insert with IDK (integrated torque control), thick-walled true diameter casing, wall fixing ring, expansion resin (150 ml), casing pipe end plug

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

## KRASO® Inject FR **LG 6**

wall penetration for the connection of KG/KG 2000 pipes, with injection system | DIN 18533 W2.1 -E, DafStB waterproof concrete guideline: stress class 1 + 2



| Item   | KRASO® Inject FR |              |
|--|------------------|--------------|
| Diameter DN                                  | 110              | 160          |
| Wall thickness from ... to ...*              | 200 - 400        |              |
| Diameter core drilling min ... max ... in mm | 149 - 153        | 199 - 203    |
| External diameter sealing flange             | 250              | 300          |
| Length KG pipe* in cm                        | 50               |              |
| <b>KRASO® Inject FR</b>                      | <b>295 €</b>     | <b>425 €</b> |

\*Extendable on-site

**Scope of supply:** KRASO® Inject FR, including inject sealing insert with IDK (integrated torque control), pipe with sleeve and spigot, wall fixing ring, expansion resin (300 ml)

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

## KRASO® Inject - Accessories **LG 6**

2 component expansion resin (Tangit), 2 cartridges, 150 ml each, suitable for KRASO® Inject FE, KRASO® Inject LR, KRASO® Inject FR • cartridge pressing pistol | DIN 18533 W2.1 -E, DafStB waterproof concrete guideline: stress class 1 + 2



| Item                      | KRASO® Inject Accessories |
|---------------------------|---------------------------|
| Inject expansion resin    | 30 €                      |
| Cartridge pressing pistol | 79 €                      |

**Scope of supply:** Inject expansion resin, 2 cartridges, 150 ml each • cartridge pressing pistol



**KRASO® Multi Flange Plate Type MFP**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Multi Flange Plate Type MFP

### Smart combination – innovative solution

- + Combination of high-quality **KRASO® Sealing Insert** and flange plate made of high-strength special plastic!
- + Fast and easy installation thanks to the low weight – even by just one person!
- + Installation in front of the waterproof concrete wall. EPDM flat seal, fixing material and adhesive and sealant **KRASO® PU 50** are included in the scope of supply.
- + For new buildings and rehabilitation! Easy and fast installation and sealing of media lines, also retrospectively. Special designs can usually be produced and dispatched within 24 hours.
- + MPA-tested: water pressure tight up to 1 bar!
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + DafStB waterproof concrete guideline: stress class 1 + 2

**KRASO® Multi Flange Plate Type MFP**, EPDM flat seal, fixing material, adhesive and sealant **KRASO® PU 50**



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

for installation of pipes, sealing width to the media pipe or cable 20 mm | DafStB waterproof concrete guideline: stress class 1 + 2

| 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 = 323      | 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    |              |              |              |
| <b>KRASO® Multi Flange Plate Type MFP</b>    | <b>213 €</b>                       | <b>225 €</b> | <b>244 €</b> | <b>261 €</b> | <b>315 €</b> | <b>361 €</b> | <b>444 €</b> |

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

**Further sizes and diameters available on request!**

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

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



## KRASO® Casing and Sealing Insert Type FL

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

- + For buildings with exterior sealing ("black tank"): according to DIN 18533 ("sealing of below-ground structural elements")
- + Each design available as separate types for pressing and non-pressing water
- + Available in non-corrosive stainless steel V2A or V4A and in electrogalvanised steel!
- + Upon request available with special coating for buildings with thick coating (e.g. KMB)!
- + DIN 18533: water exposure classes W1 -E and W2.2 -E ("soil moisture and non-pressing water" or "high impact of pressing water (water column  $\geq 3$  metres)")

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



non-corrosive stainless steel V2A

**KRASO® Casing Type FL/ZE**  
- for concreting -



non-corrosive stainless steel V2A

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



non-corrosive stainless steel V2A



electrogalvanised



electrogalvanised,  
with plastic casing



electrogalvanised



KRASO® Casing Type FL/ZA  
Check the installation video  
(Just scan the QR code!)



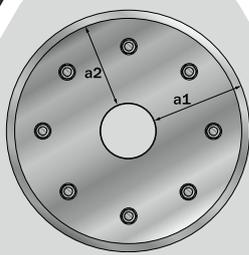
## KRASO® Casing Type FL/ZA - fixed-loose flange for dowel-fixing **LG2**

fixed-loose flange for dowel-fixing, with casing, for installation of media pipes using a sealing insert (not included in the scope of supply), for buildings with exterior sealing ("black tank") according to DIN 18533. Available in non-corrosive stainless steel V2A or electrogalvanised, each with or without special coating. ID = InternalDiameter | **DIN 18533 W1-E and W2.2-E**

| Item  | KRASO® Casing Type FL/ZA - DIN 18533 W2.2-E: HIGH IMPACT OF PRESSING WATER (WATER COLUMN ≥ 3 METRES) |       |       |         |         |         |         |
|---|--|-------|-------|---------|---------|---------|---------|
| 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<br>- non-corrosive stainless steel V2A - | 766 €  | 863 € | 931 € | 1,045 € | 1,262 € | 1,486 € | 1,737 € |
| KRASO® Casing Type FL/ZA<br>- 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 €   |

| Item  | KRASO® Casing Type FL/ZA - DIN 18533 W1-E: SOIL MOISTURE AND NON-PRESSING WATER |       |       |       |       |         |         |
|---|---|-------|-------|-------|-------|---------|---------|
| Casing Internal Diameter ID                                       | 80  | 100   | 125   | 150   | 200   | 250     | 300     |
| 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<br>- non-corrosive stainless steel V2A - | 514 €   | 603 € | 650 € | 751 € | 939 € | 1,181 € | 1,423 € |
| KRASO® Casing Type FL/ZA<br>- 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!**

Schematic  
top view

KRASO® Casing Type FL/ZE  
Check the installation video  
(Just scan the QR code!)



## KRASO® Casing Type FL/ZE - fixed-loose flange for concreting **LG2**

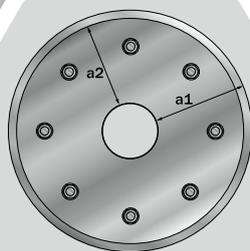
fixed-loose flange for concreting, with casing, for installation of media pipes using a sealing insert (not included in the scope of supply) for buildings with exterior sealing ("black tank") against pressing/non-pressing water according to DIN 18533. Available in non-corrosive stainless steel V2A or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

| Item  | KRASO® Casing Type FL/ZE - DIN 18533 W2.2 -E: HIGH IMPACT OF PRESSING WATER (WATER COLUMN $\geq 3$ METRES) |       |       |         |         |         |         |
|---|--|-------|-------|---------|---------|---------|---------|
| Casing Internal Diameter ID                                       | 80   | 100   | 125   | 150     | 200     | 250     | 300     |
| Wall thickness in cm  | 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<br>- non-corrosive stainless steel V2A - | 839 €  | 918 € | 997 € | 1,121 € | 1,400 € | 1,722 € | 2,036 € |
| KRASO® Casing Type FL/ZE<br>- 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 €   |

| Item  | KRASO® Casing Type FL/ZE - DIN 18533 W1 -E: SOIL MOISTURE AND NON-PRESSING WATER |       |       |       |         |         |         |
|---|--|-------|-------|-------|---------|---------|---------|
| 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<br>- non-corrosive stainless steel V2A - | 622 €  | 679 € | 759 € | 874 € | 1,169 € | 1,666 € | 1,833 € |
| KRASO® Casing Type FL/ZE<br>- 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!**

Schematic  
top view

KRASO® Sealing Insert Type FL  
Check the installation video  
(Just scan the QR code!)



## KRASO® Sealing Insert Type FL - fixed-loose flange **LG2**

fixed-loose flange with **KRASO® Sealing Insert**, for installation of media pipes for buildings with exterior sealing ("black tank") according to DIN18533. 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 W2.2-E**

| 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 |

| Item   | KRASO® Sealing Insert Type FL/DD - DIN 18533 W2.2-E: HIGH IMPACT OF PRESSING WATER (WATER COLUMN ≥ 3 METRES) |       |       |         |         |         |         |
|--|--|-------|-------|---------|---------|---------|---------|
| 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 €   |

| Item   | KRASO® Sealing Insert Type FL/ED - DIN 18533 W1-E: SOIL MOISTURE AND NON-PRESSING WATER |       |       |       |         |         |         |
|--|---|-------|-------|-------|---------|---------|---------|
| 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 non-corrosive stainless steel V2A **LG 2**

for installation of pipes or cables using a sealing insert (not included in the scope of supply), in front of a core drilling 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

| Item   | KRASO® Flange Plate non-corrosive stainless steel V2A |              |              |              |              |              |              |
|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
|  | 80  | 100          | 125          | 150          | 200          | 250          | 300          |
| InternalDiameter ID tubular sleeve                           | 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      |
| <b>KRASO® Flange Plate non-corrosive stainless steel V2A</b> | <b>228 €</b>  | <b>236 €</b> | <b>252 €</b> | <b>265 €</b> | <b>308 €</b> | <b>348 €</b> | <b>384 €</b> |

**Scope of supply:** KRASO® Flange Plate non-corrosive 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 to DIN 18533, stainless steel V4A!**



## KRASO® Flange Plate electrogalvanised **LG 2**

for installation of pipes or cables using a sealing insert (not included in the scope of supply), in front of a core drilling in concrete or masonry wall, electrogalvanised steel, EPDM flat seal. ID = InternalDiameter | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® Flange Plate electrogalvanised |              |              |              |              |              |              |
|--|---------------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|
|  | 80                                    | 100          | 125          | 150          | 200          | 250          | 300          |
| InternalDiameter ID tubular sleeve           | 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      |
| <b>KRASO® Flange Plate electrogalvanised</b> | <b>171 €</b>                          | <b>177 €</b> | <b>190 €</b> | <b>199 €</b> | <b>230 €</b> | <b>262 €</b> | <b>289 €</b> |

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

**Further sizes and diameters available on request!**

## Non-corrosive steel or galvanised?

### Note the following

- + **Long-lasting quality:** non-corrosive stainless steel has got an especially high proportion of chromium. Combined with further alloying constituents, this is a protective layer ("chromium-oxide") providing a special protection against corrosion and acids
- + **Cost-effective alternative:** electrogalvanised steel has got a protective coating made of zinc. However, the coating is only a few microns. If this 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 steel.



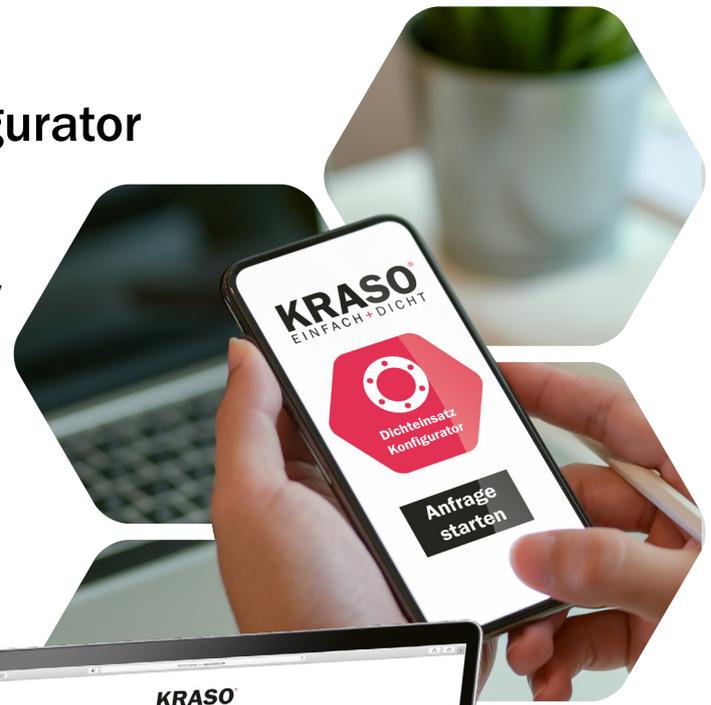


## KRASO® Sealing Inserts Protection against radon!

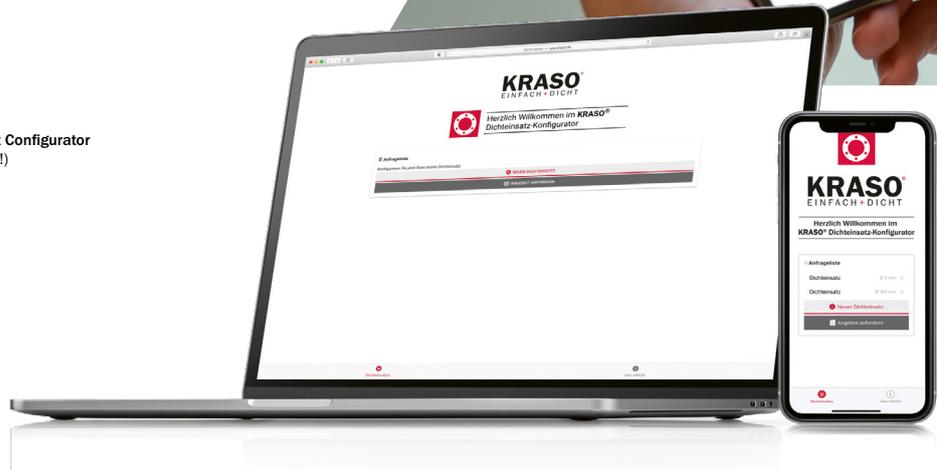
- + Radon is a naturally occurring noble gas. An accumulation of the radioactive gas in rooms is harmful to health!
- + **KRASO® Sealing Inserts** and **KRASO® Pipe Penetrations with 4 Seal** do not only protect against pressing water, but they are also gas-tight – MPA- and IAF-tested!
- + For a reliable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

## KRASO® Sealing Insert Configurator Online and as app

- + Simple and fast: configure the fitting sealing insert and request an offer online or via app. Just enter the quantity and diameters of the media lines and the sealing insert configurator proves the feasibility or proposes the suitable diameter for a core drilling. Available free of charge for iOS or at [KRASO.de/en](http://KRASO.de/en).



KRASO® Sealing Insert Configurator  
(Just scan the QR code!)





# Utility Connection - Entries



UTILITY - ENTRIES

## + Floor

|   |       |    |
|---|-------|----|
| <b>KRASO® Builder's Convenience Box - floor - SET</b>         | _____ | 44 |
| <b>KRASO® Builder's Convenience Box - floor - 110</b>         | _____ | 48 |
| <b>KRASO® Builder's Convenience Box - floor - 150</b>         | _____ | 50 |
| <b>KRASO® Builder's Convenience Box - floor - NFE - Basis</b> | _____ | 52 |

## + Wall

|  |       |    |
|--|-------|----|
| <b>KRASO® Builder's Convenience Box - wall</b>       | _____ | 54 |
| <b>KRASO® Builder's Convenience Box - wall - NFE</b> | _____ | 56 |
| <b>KRASO® Builder's Convenience Box - wall - ESH</b> | _____ | 58 |
| <b>KRASO® Builder's Convenience Box - wall - SWP</b> | _____ | 60 |
| <b>KRASO® WP-DUO</b>                                 | _____ | 61 |

## + Accessories

|   |       |    |
|---|-------|----|
| <b>KRASO® BKP - Sealing Inserts</b>               | _____ | 62 |
| <b>KRASO® BKP Floor Screed Insert</b>             | _____ | 62 |
| <b>KRASO® BKP Gas Installation Kits</b>           | _____ | 63 |
| <b>KRASO® BKP - Extension Sets</b>                | _____ | 63 |
| <b>KRASO® FLS 90 - Flexible Empty Pipe System</b> | _____ | 63 |

## Multi utility connection for buildings without basement



**KRASO® Builder's Convenience Box**  
- floor - **SET**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Builder's Convenience Box - floor - **SET**

### The multi utility connection with integrated installation kit

- + The convenient solution for builders: safe and tight installation of gas, water, electricity and telecommunication lines into buildings without basement!
- + DVGW-certified according to VP 601: overall system is gas- and water pressure tight up to 1 bar! Gas- and odour-tight – high-quality in terms of TA-Air!
- + Radon-tight! Resistant to methane gas!
- + **KRASO® 4 Seal**: exterior sealing of concrete: 10 bar!  
Overall system is gas- and water pressure tight up to 1 bar!
- + Simple installation due to stable installation device and visual check of the snap-on-socket - helps to avoid installation errors
- + Hose diameter: external 90 mm - internal 80 mm
- + With integrated installation kit: ready-assembled components for the utility connection of electricity, water and telecommunication lines, including floor screed insert and height fixation. No need to pass on the installation kit to other installers.
- + For flush-mount installation in the base plate - no tripping hazards, no wall damages!  
Including building period installation cover
- + Easy integration of vapour barrier foils due to the roughened trowel flange!
- + Height-adjustable base plate and floor screed
- + **KRASO® BKP Gas Installation Kits** optionally available
- + Split end plugs for easy installation!
- + Including extension set!
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 -E



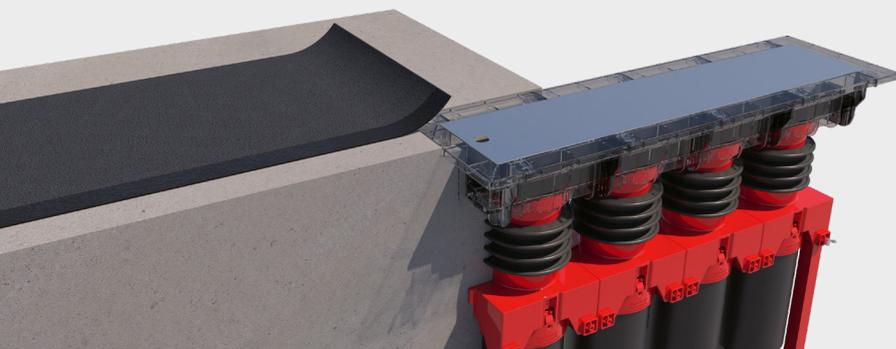
**KRASO® BKP - floor - **SET** - 4-fold:**  
each section can be used!

With integrated installation kit:  
no need to pass on the installation kit to other installers

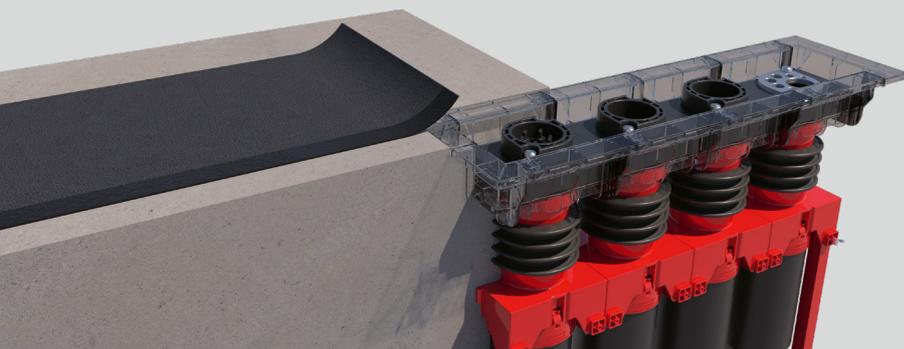


UTILITY - ENTRIES

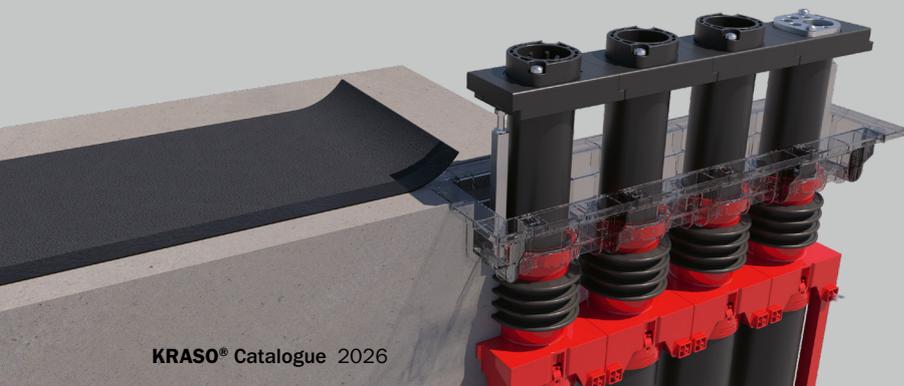
### In line with the construction process:



The installation kit in the **SET** is securely closed with a building period protective cover. After the pouring of the base plate the vapour barrier foil can be applied to the roughened trowel flange.



The integrated installation kit includes the pre-assembled components for the utility connection for electricity, water and telecommunication lines. Optionally available: **KRASO® BKP Gas Installation Kits**



The floor screed insert is pulled out of the **SET** and adjusted to the desired height (0-240 mm). The floor screed insert can be fixed with the height fixation. The lines for water, electricity and telecommunication can now be installed in the building and then sealed with the appropriate **KRASO® BKP - Sealing Inserts** from the installation kit.



**KRASO® BKP - Sealing Inserts**  
 - telecommunication -  
 - electricity/water -  
 - electricity + telecommunication -  
 consists of primary and secondary sealing

integrated installation kit with ready-assembled components for the utility connection  
 roughened trowel flange for integration of vapour barrier foils  
 eyebolts

optionally available **KRASO® BKP Gas Installation Kits** consists of primary and secondary sealing  
 • Schuck DN 25  
 • RMA DN 25  
 • Voigt DN 25  
 • Voigt DN 32

height-adjustable **KRASO® BKP Floor Screed Insert** with height fixation, protection foil and lubricant

height-adjustable **SET** 4-fold with gas- and water pressure tight **KRASO® 4 Seal** and visual check of the snap-on-socket

**KRASO® FLS 90** with vulcanised locking-sleeve

pair of supporting bars

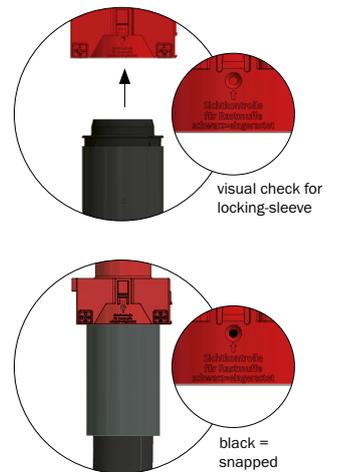
foot

foot extension

sealing lid

gas sealing end plug for a sand proof sealing of the gas line in the **KRASO® FLS 90**

casing pipe end plugs including  
 • end plug  
 • hose connection 90/75



## KRASO® Builder's Convenience Box - floor - SET LG 5

multi utility connection for supply lines (gas, water, electricity, telecommunication) for buildings without basement incl. KRASO® FLS 90, incl. installation kits for electricity/water (2 x), telecommunication, electricity + telecommunication as standard configuration for KRASO® BKP - floor - SET - 4-fold, desired configuration for the KRASO® BKP - floor - SET - 3-fold, 2-fold, 1-fold, KRASO® BKP Gas Installation Kits are optionally available | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1-E

| Item   |  | KRASO® BKP - floor - SET |         |         |         |         |         |         |
|--|--|--------------------------|---------|---------|---------|---------|---------|---------|
| Height-adjustable to TEUF* in mm from ... to ...       |  | 1350 - 1400              |         |         |         |         |         |         |
| Height-adjustable to TEFF** in mm from ... to ...      |  | 0 - 240                  |         |         |         |         |         |         |
| Bending radius in mm                                   |  | ≥ 1000                   |         |         |         |         |         |         |
| incl. KRASO® FLS 90 (hose length per section in metre) |  | 3                        | 4       | 6       | 9       | 10      | 12      | 15      |
| Design   | Dimensions floor screed insert wiping edge in mm |                          |         |         |         |         |         |         |
| 1-fold   | 141 x 90   | 404 €                    | 424 €   | 463 €   | 521 €   | 541 €   | 580 €   | 638 €   |
| 2-fold   | 284 x 90   | 553 €                    | 592 €   | 670 €   | 787 €   | 826 €   | 904 €   | 1,021 € |
| 3-fold   | 423 x 90   | 834 €                    | 893 €   | 1,010 € | 1,185 € | 1,244 € | 1,361 € | 1,536 € |
| 4-fold   | 564 x 90   | 963 €                    | 1,041 € | 1,197 € | 1,431 € | 1,509 € | 1,665 € | 1,899 € |
| 5-fold   | 705 x 90   | 1,237 €                  | 1,335 € | 1,530 € | 1,821 € | 1,919 € | 2,115 € | 2,407 € |

**Scope of supply:** the following details are for the KRASO® Builder's Convenience Box - floor - SET - 4-fold with KRASO® FLS 90 (3 metres), the delivery is differing with regard to other designs (3-fold, 2-fold, 1-fold)

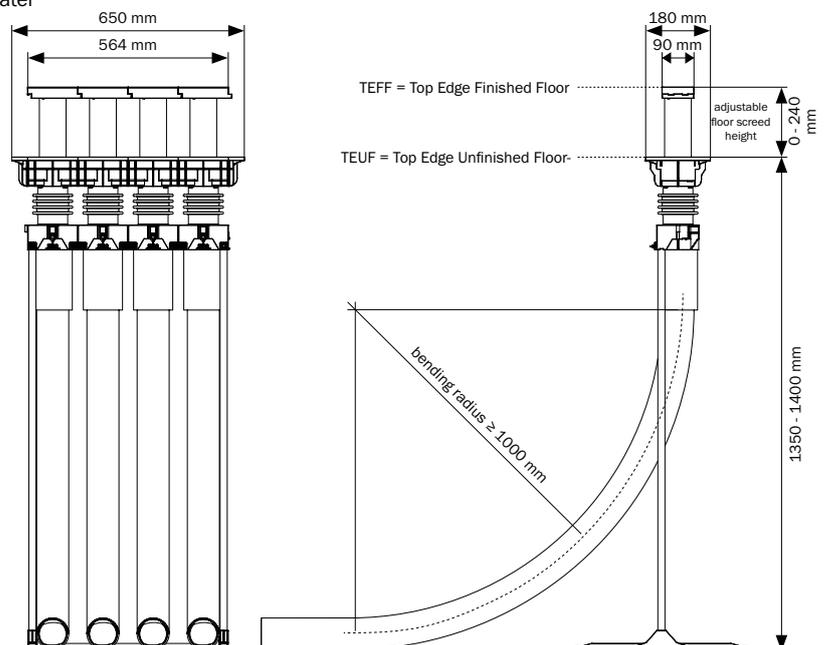
- foot
- foot extension
- pair of supporting bars
- height-adjustable SET 4-fold with gas- and water pressure tight KRASO® 4 Seal, trowel flange, visual check for locking-sleeve and integrated installation kit with building period installation cover
- 4 x Flexible Empty Pipe System KRASO® FLS 90 (3 metres) with vulcanised locking-sleeve and closure cover
- height-adjustable KRASO® BKP Floor Screed Insert with protective cover and lubricant
- height fixation for KRASO® BKP Floor Screed Insert (2 pcs.)
- installation instructions KRASO® Builder's Convenience Box - floor - SET
- KRASO® BKP - floor - Extension Set including
  - 4 x adapter tube 90
  - 8 x shrink hose (DN 90 auf DN 75)
- installation kits including
  - KRASO® BKP - Sealing Insert - electricity/water - 2 pcs. with stepless onion ring technology 26 - 50 mm or blind
    - primary sealing + secondary sealing electricity/water
    - casing pipe end plugs including
      - end plugs electricity/water - split -
      - hose connection 90/75

- KRASO® BKP - Sealing Insert - telecommunication - clamping range: 5 - 13 mm, 3 x 7 - 13 mm, 13 - 21 mm or blind
  - primary sealing + secondary sealing telecommunication
  - casing pipe end plugs including
    - end plug telecommunication - split -
    - hose connection 90/75

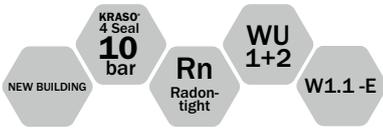
- KRASO® BKP - Sealing Insert - electricity + telecommunication - clamping range: electricity 25 - 36 mm / telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm or blind
  - primary sealing + secondary sealing electricity + telecommunication
  - casing pipe end plugs including
    - end plug electricity + telecommunication
    - hose connection 90/75
  - a tube of lubricant

optionally available KRASO® BKP Gas Installation Kits:

- Schuck DN 25 consisting of primary and secondary sealing as well as gas end plug
- RMA DN 25 consisting of primary and secondary sealing as well as gas end plug
- Voigt DN 25 consisting of primary and secondary sealing as well as gas end plug
- Voigt DN 32 consisting of primary and secondary sealing as well as gas end plug



\* TEUF = Top Edge Unfinished Floor  
\*\* TEFF = Top Edge Finished Floor



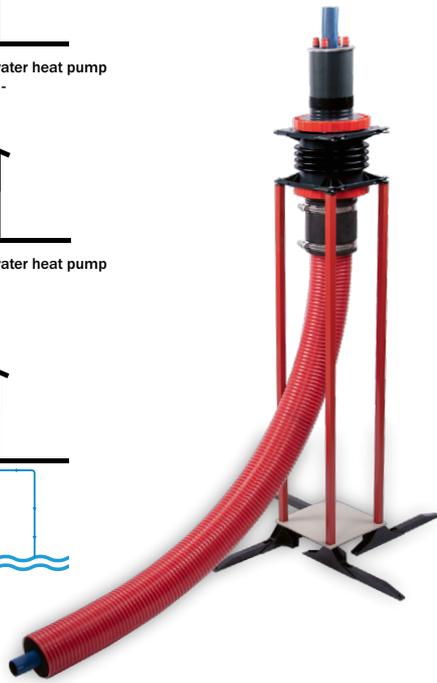
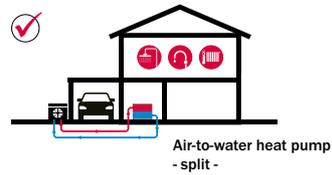
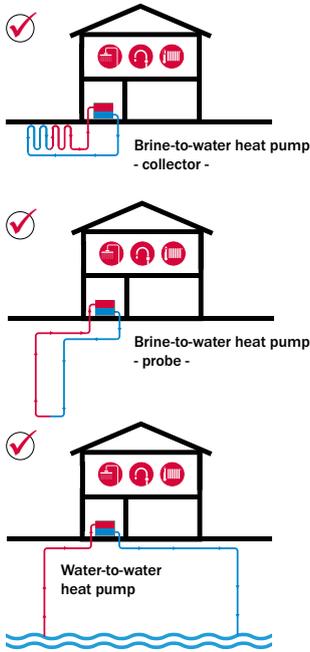
# KRASO® Builder's Convenience Box - floor - 110

The flexible utility connection for heat pumps, local, district or geothermal heating, gas, water or electricity

- + The secure utility connection for heat pumps for buildings without basement:
  - **KRASO® Builder's Convenience Box - floor - 110** for water-to-water heat pumps and brine-to-water-heat pumps (probe and collector)
  - **KRASO® Builder's Convenience Box - floor - 110 - SWP** for air-to-water heat pump (split)
- + Flexible: also usable for configuring with local, district or geothermal piping systems, gas, water or electricity up to DN 50
- + With water pressure tight surrounding **KRASO® 4 Seal**: exterior sealing of concrete: 10 bar!
- + Radon-tight!
- + Hose diameter: external 110 mm - internal 100 mm!
- + Stable installation device with foot extension for a safe position and an easy installation
- + For flush-mount installation in the base plate – no tripping hazards, no wall damages! Including building period protection cover
- + Incl. empty pipe insert (25 cm, internal diameter: 100 mm) for a flexible floor construction
- + Incl. Flexible Empty Pipe System **KRASO® FLS 110** (internal diameter: 100 mm) 1000 mm. Incl. hose connection 110 und ending plug
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 -E



**KRASO® Builder's Convenience Box - floor - 110** also available as multi utility connection!



### KRASO® Builder's Convenience Box - floor - 110

with KRASO® Sealing Insert Universal 100 DD with large flange for internal installation of the lines

**Scope of application:**

- stepless onion ring technology 18 – 65 mm or blind

### KRASO® Builder's Convenience Box - floor - 110 - SWP

with KRASO® Sealing Insert Type SWP with large flange for internal installation of the lines

**Scope of application:**

- for control cables, closed: stepless onion ring technology 2 x 5 - 18 mm, with plug
- for refrigerant pipes, split:
  - onion ring technology 1 x 6 - 13 mm for 1/4 or 3/8 inch pipes, with plug
  - onion ring technology 1 x 6 - 18 mm for 1/4, 3/8, 1/2 or 5/8 inch pipes, with plug



incl. empty pipe insert (25 cm, internal diameter: 100 mm)

### KRASO® Builder's Convenience Box - floor - 110

**LG 5**

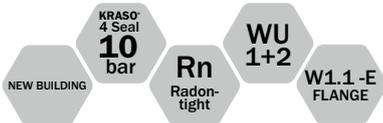
(including installation set)

**KRASO® Builder's Convenience Box (BKP) - floor - 110 - 1-fold**, single utility connection for supply lines (heat pump, local/district/geothermal heating, gas, water or electricity) for buildings without basement, incl. **KRASO® FLS 110**. | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 -E

| Item                                    | KRASO® BKP - floor - 110 / KRASO® BKP - floor - 110 - SWP |       |       |         |
|---|---|-------|-------|---------|
| Height to TEUF in mm                    | approx. 1250  |       |       |         |
| Height-adjustable to TEFF in mm to max. | approx. 1500  |       |       |         |
| Bending radius in mm                    | 1000  |       |       |         |
| Incl. KRASO® FLS 110 in metres          | 3   | 6     | 9     | 12      |
| KRASO® BKP - floor - 110                | 715 €   | 814 € | 913 € | 1,012 € |
| KRASO® BKP - floor - 110 - SWP          | 750 €   | 849 € | 948 € | 1,047 € |
| optionally: KRASO® Trowel Flange        | 93 €  |       |       |         |

**Scope of supply:** stable installation device with foot extension, wall penetration for installation flush with the base plate, Flexible Empty Pipe System **KRASO® FLS 110** (internal diameter: 100 mm), radius: 1000 mm, incl. hose adapter 110, installation set including: empty pipe insert ID 100, approx. 25 cm, **KRASO® Sealing Insert Universal 100 DD** with large flange, end plug FLS 110 Universal or **KRASO® Sealing Insert Type SWP** with large flange, end plugs

**Different lengths available on request!**



## KRASO® Builder's Convenience Box - floor - 150

### The safe utility connection for larger media lines

- + The safe utility connection for larger media lines for buildings without basement, e.g. electricity or water for residential buildings or commercial buildings
- + Usable with **KRASO® Sealing Insert** with large flange as utility connection entry or outlet: e.g. for charging stations in residential buildings (flat ownership modernisation law – WEMoG)
- + With water pressure tight surrounding **KRASO® 4 Seal**: exterior sealing of concrete: 10 bar!
- + Radon-tight!
- + Stable installation device incl. rigid empty pipe with bending radius from 1000 mm
- + For flush-mount installation in the base plate – no tripping hazards, no wall damages! Including building period protection cover
- + Including empty pipe insert (25 cm, internal diameter: 150 mm) for a flexible floor construction
- + Internal installation of media lines via **KRASO® Sealing Inserts**: various designs with stepless onion ring technology
- + External optional connection possibilities: connection to **KRASO® FLS**, cable protective hoses DN 110 or DN 160 or KG empty pipe systems with DN 160
- + Optionally available: **KRASO® Trowel Flange**
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 -E



optional  
**KRASO®**  
Trowel Flange

**KRASO®**  
Empty Pipe Insert

### **KRASO® Builder's Convenience Box - floor - 150** **LG 5**

single utility connection for supply lines, for buildings without basement, with water pressure tight surrounding **KRASO® 4 Seal** | **DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 - E**

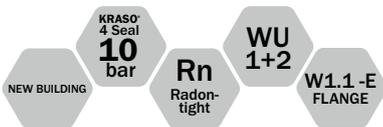
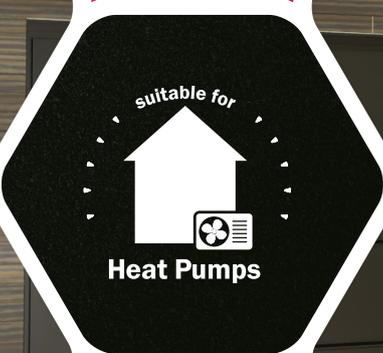
| Item   | <b>KRASO® BKP - floor - 150</b> |  |                           |                            |
|--|---------------------------------|--|---------------------------|----------------------------|
| Height to TEUF in mm   | approx. 1330                    |  |                           |                            |
| Height-adjustable to TEFF in mm to max.  | approx. 1580                    |  |                           |                            |
| Bending radius in mm   | 1000                            |  |                           |                            |
| <b>KRASO® Sealing Insert with large flange optionally:</b>                       | <b>Design 1</b>                 | <b>Design 2</b>                                | <b>Design 3</b>           | <b>Design 4</b>            |
| Stepless onion ring technology:<br>external diameter cable from ... to ... in mm | 3 x 6 - 52 mm<br>or blind       | 4 x 6 - 18 mm and<br>6 x 6 - 33 mm<br>or blind | 6 x 6 - 38 mm<br>or blind | 1 x 50 - 92 mm<br>or blind |
| <b>KRASO® System Cover – optionally:</b>   | <b>Design 1</b>                 | <b>Design 2</b>                                | <b>Design 3</b>           |                            |
|  | Hose adapter 160                | Hose adapter 110                               | Sleeve DN 160             |                            |
| <b>KRASO® BKP - floor - 150</b>  | <b>821 €</b>                    |  |                           |                            |
| optionally: <b>KRASO® Trowel Flange</b>  | <b>93 €</b>                     |  |                           |                            |

**Scope of supply:** rigid empty pipe 150 incl. stable installation device, empty pipe insert ID 150, approx. 25 cm, **KRASO® Sealing Insert** with large flange for the installation in **KRASO® Empty Pipe Insert**, **KRASO® System Cover KDS** for the connection of on-site empty pipe

## Trusting in knowledge - building tightly **KRASO®** is a member of FHRK e. V.

- + As a member of the **Fachverband Hauseinführungen für Rohre und Kabel** (*Professional association house entries for pipes and cables, FHRK e. V.*), together with other manufacturers and users such as utility companies, we develop test principles and technical guidelines that ensure the quality of sealing solutions for house entries and make them comparable.





## KRASO® Builder's Convenience Box - floor - NFE - Basis

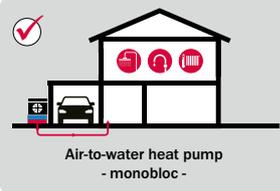
Simple, comfortable, tight to the heat pump or to the local, district and geothermal energy network



- + The comfortable solution for the connection to air-to-water-heat pumps (monobloc) or to the local, district and geothermal energy network – for flexible and insulated pipelines with integrated supply and reflux
- + Fully assembled stable installation device: positioning – arrangement – concreting – connection – ready!
- + For buildings without basement: single-/multi-family houses, public and commercial buildings
- + On request also available with **KRASO® Foil Flange** – for the integration into the floor sealing
- + **KRASO® Builder's Convenience Box - floor - NFE - Basis** including:
  - **KRASO® Builder's Convenience Box - floor - NFE - Basis DN 200, DN 250 or DN 315** with water pressure tight surrounding **KRASO® 4 Seal**
  - **KRASO® Empty Pipe Insert** for the internal floor construction
  - Building period protective cover
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 -E

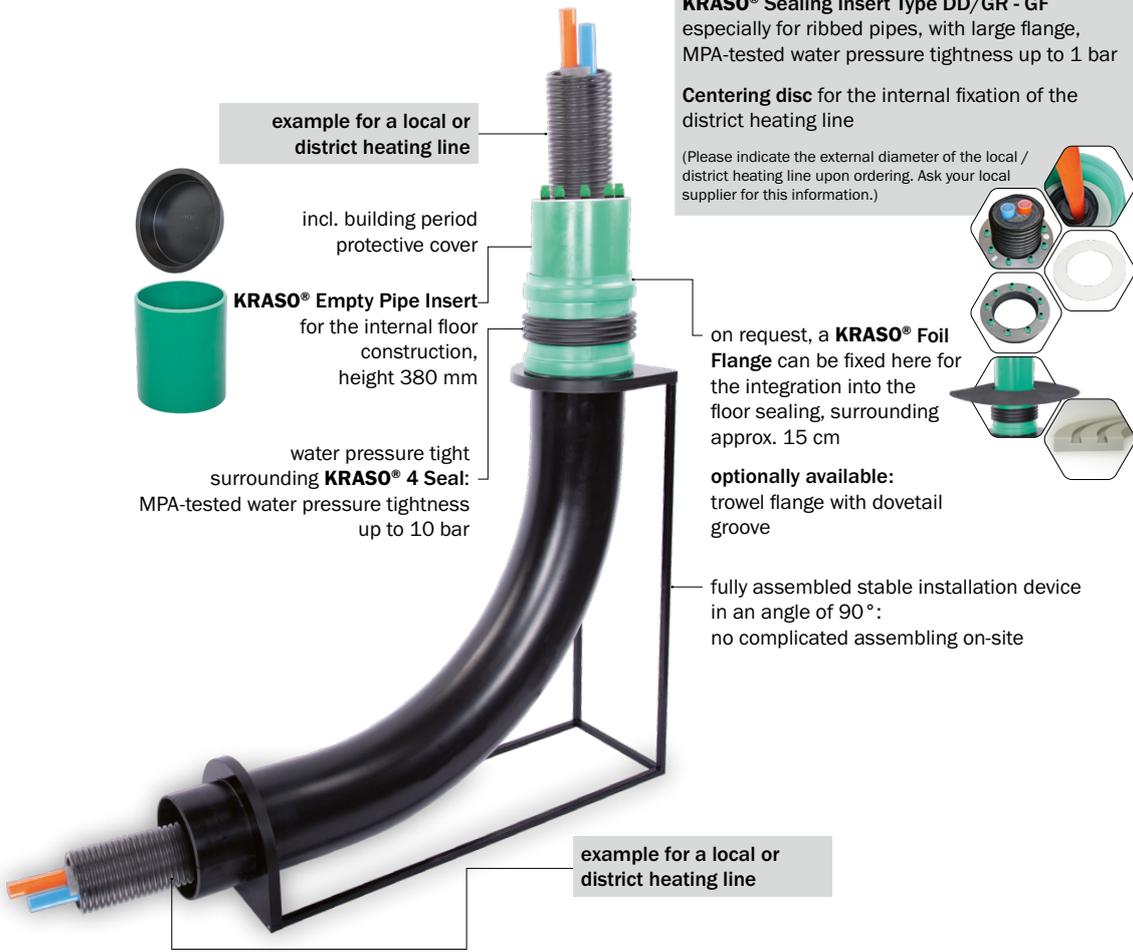
**KRASO® Builder's Convenience Box - floor - NFE - Basis**  
also available as 2-fold system!





extension of the exterior connection to KG or KG 2000 pipes (on-site) possible

**Optionally available installation kit:**  
**KRASO® Sealing Insert Type DD/GR - GF** especially for ribbed pipes, with large flange, MPA-tested water pressure tightness up to 1 bar  
**Centering disc** for the internal fixation of the district heating line  
 (Please indicate the external diameter of the local / district heating line upon ordering. Ask your local supplier for this information.)



**KRASO® Builder's Convenience Box - floor - NFE - Basis LG 5**

for the connection to the local, district and geothermal energy network. Optionally available: **KRASO® Foil Flange** for the integration into the floor sealing | **DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 - E**

| Item   | KRASO® BKP - floor - NFE - Basis |              |                |              |                |
|--|----------------------------------|--------------|----------------|--------------|----------------|
|  | 200                              | 200          | 200            | 250          | 315            |
| Diameter DN                                      | 200                              | 200          | 200            | 250          | 315            |
| Bending radius in mm                             | 800                              | 1000         | 1250           | 800          | 1000           |
| <b>KRASO® BKP - floor - NFE - Basis</b>          | <b>914 €</b>                     | <b>955 €</b> | <b>1,017 €</b> | <b>991 €</b> | <b>1,154 €</b> |
| <b>KRASO® Foil Flange (optionally available)</b> | <b>237 €</b>                     | <b>237 €</b> | <b>237 €</b>   | <b>309 €</b> | <b>400 €</b>   |
| <b>Installation kit (optionally available)</b>   | <b>284 €</b>                     | <b>284 €</b> | <b>284 €</b>   | <b>339 €</b> | <b>434 €</b>   |

**Scope of supply:** KRASO® Builder's Convenience Box - floor - NFE - Basis with installation device, empty pipe insert and building period protection cover. Optionally available: **KRASO® Foil Flange**, installation kit with **KRASO® Sealing Insert Type DD/GR - GF** and centering disc

**Two-fold version on request!**



Multi utility connection for buildings with basement



KRASO® Builder's Convenience Box - wall  
Check the installation video (Just scan the QR code!)



## KRASO® Builder's Convenience Box - wall

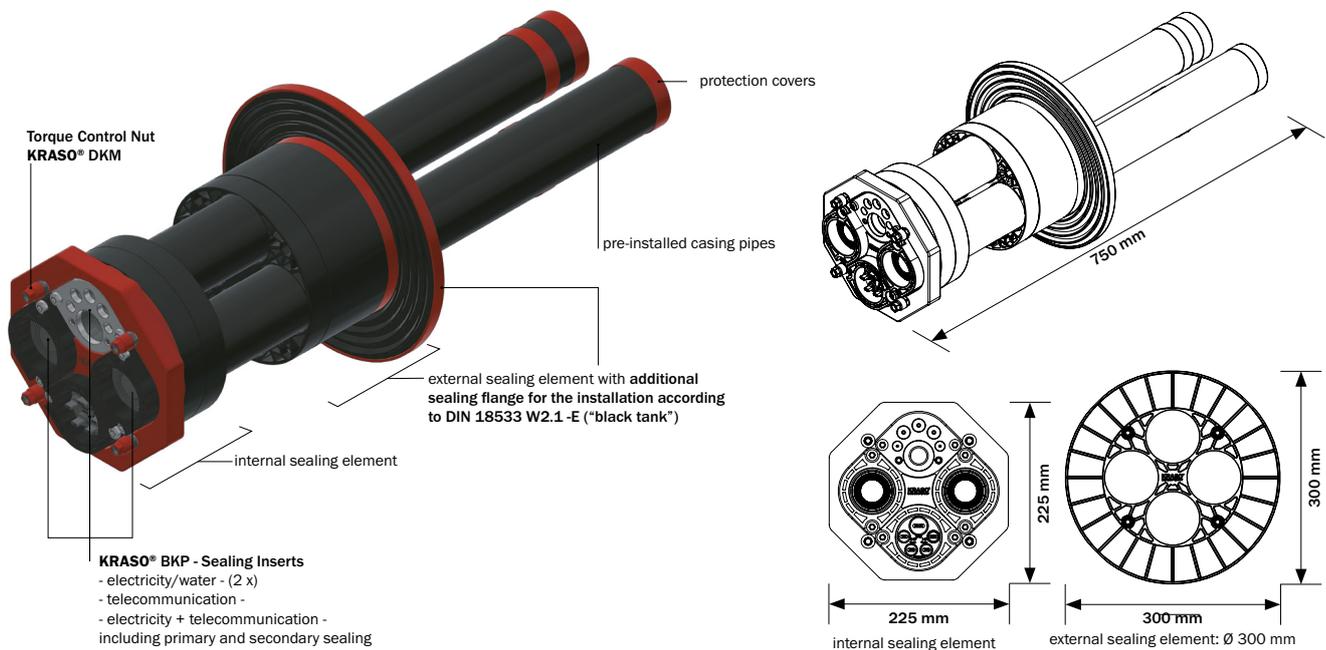
### Multi utility connection for buildings with basement: gas, water, electricity and telecommunication

- + DVGW-certified according to VP 601: complete system is gas- and water pressure tight up to 1 bar!
- + For core drilling and casing DN 200 (199 - 203 mm). For precast walls and in-situ concrete walls!
- + External sealing element with sealing flange according to DIN 18533! Seal width: 80 mm
- + Tight in waterproof concrete structures with stress class 1 (permanently or temporarily pressing water)
- + Radon tightness IAF tested - meets the requirements for radon precautionary areas according to FHRK leaflet MB 101! Resistant to methane gas!
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + Split end plugs for easy installation!
- + Ready for the network connection of gas, water, electricity and telecommunication: tested in accordance with DVGW! Including **KRASO® BKP - Sealing Inserts** for electricity/water, telecommunication, electricity + telecommunication
- + Optionally available **KRASO® BKP Gas Installation Kits**:
  - gas utility connection Schuck DN 25
  - gas utility connection RMA DN 25
  - gas utility connection Voigt DN 25
  - gas utility connection Voigt DN 32
- + Including **KRASO® BKP - wall - Extension Set**!
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

**KRASO® BKP - wall:**  
each section can be used!



**KRASO® BKP - wall - Extension Set**  
including  
- 4 x double sleeve DN 75  
- 8 x sealing ring  
- lubricant



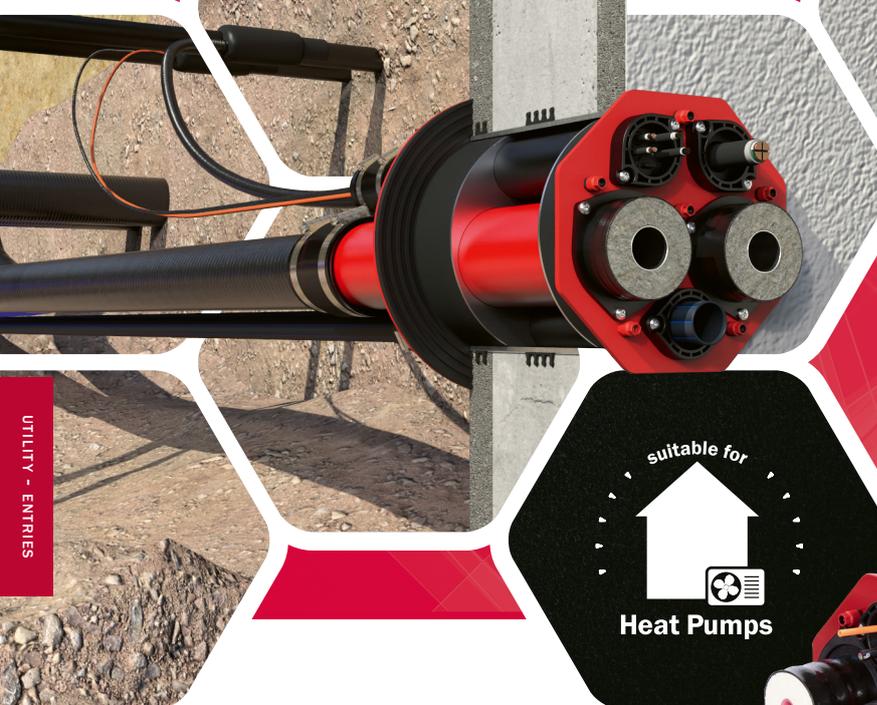
## KRASO® Builder's Convenience Box - wall **LG 5**

multi utility connection for supply lines (gas, water, electricity, telecommunication) for buildings with basement, **KRASO® BKP Gas Installation Kits** optionally available | **DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1-E and W2.1 - E**

| Item  | KRASO® BKP - wall |
|---|-------------------|
| Wall thickness from ... to ... in mm          | 200 - 500         |
| Diameter core drilling min ... max ... in mm  | 199 - 203         |
| Length complete system in mm                  | 750               |
| Length x width internal sealing element in mm | 225 x 225         |
| Diameter external sealing element in mm       | 300               |
| Internal diameter casing pipes in mm          | 68                |
| External diameter casing pipes in mm          | 75                |
| <b>KRASO® BKP - wall</b>                      | <b>772 €</b>      |

### Scope of supply:

- **KRASO® Builder's Convenience Box - wall** including
    - internal sealing element with pre-installed casing pipes incl. protective covers for the installation of supply lines such as gas, water, electricity, telecommunication
    - external sealing element
  - **KRASO® BKP - wall - Extension Set** including
    - 4 x double sleeve DN 75
    - 8 x sealing rings
    - lubricant
  - installation instructions **KRASO® Builder's Convenience Box - wall**
  - installation kits including
    - **KRASO® BKP - Sealing Insert - electricity/water** - 2 pcs. with stepless onion ring technology 26 - 50 mm or blind
      - primary sealing + secondary sealing electricity/water
      - casing pipe end plugs including
        - end plug electricity/water - split -
        - hose connection 80
    - **KRASO® BKP - Sealing Insert - telecommunication** - clamping range: 5 - 13 mm, 3 x 7 - 13 mm, 13 - 21 mm
      - primary sealing + secondary sealing telecommunication
      - casing pipe end plugs including
        - end plug telecommunication - split -
        - hose connection 80
    - **KRASO® BKP - Sealing Insert - electricity + telecommunication** - clamping range: electricity 25 - 36 mm / telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm or blind
      - primary sealing + secondary sealing electricity + telecommunication
      - casing pipe end plugs including
        - end plug electricity + telecommunication
        - hose connection 80
      - a tube of lubricant
- optionally available **KRASO® BKP Gas Installation Kits:**
- Schuck DN 25 consists of primary and secondary sealing as well as gas end plug
  - RMA DN 25 consists of primary and secondary sealing as well as gas end plug
  - Voigt DN 25 consists of primary and secondary sealing as well as gas end plug
  - Voigt DN 32 consists of primary and secondary sealing as well as gas end plug



Multi utility connection for buildings with basement



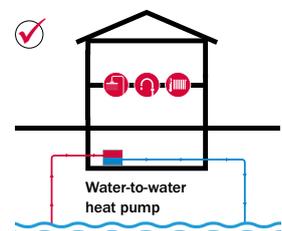
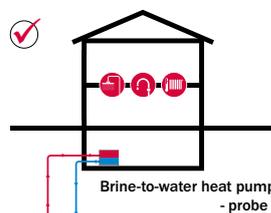
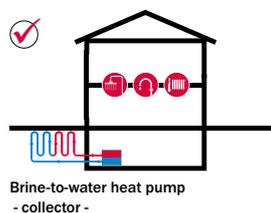
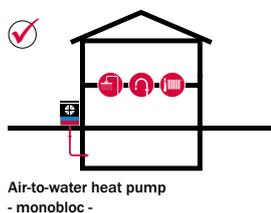
UTILITY - ENTRIES

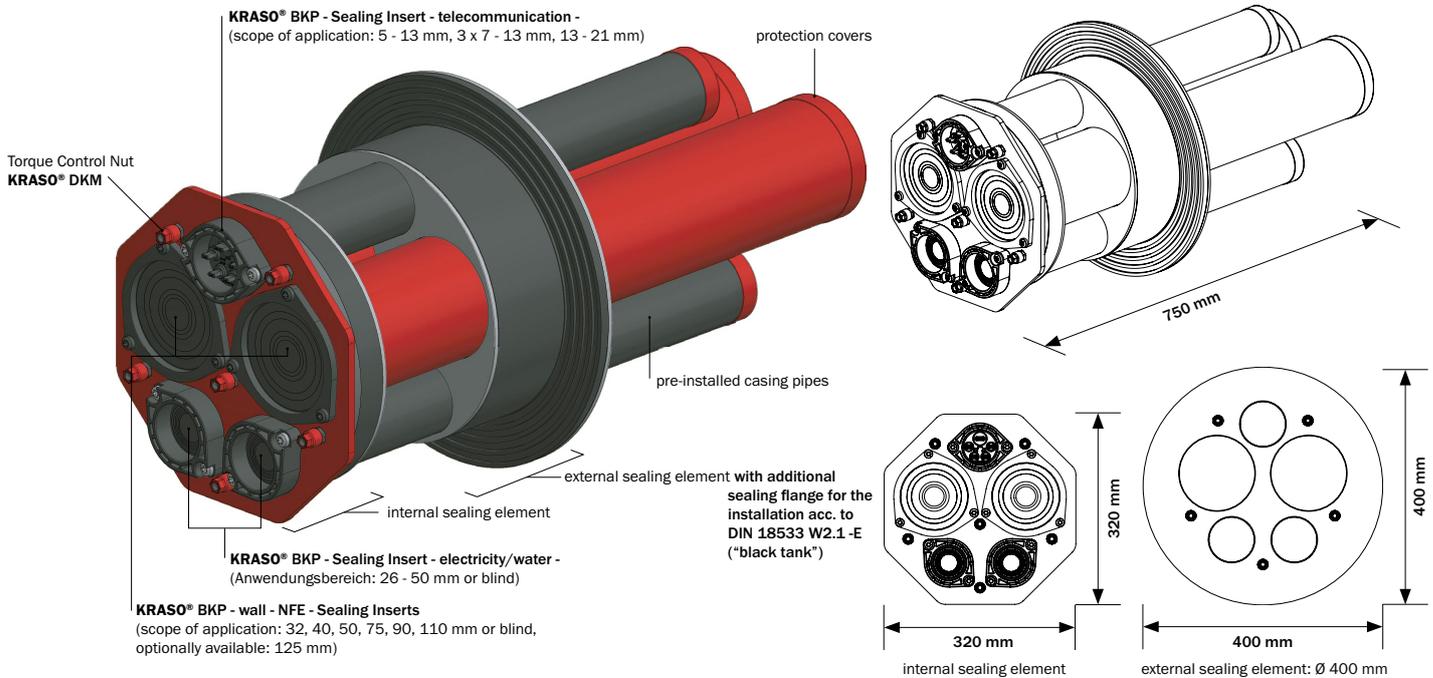


## KRASO® Builder's Convenience Box - wall - NFE

### Comfortable connection to your basement: heat pump, local, district or geothermal heating

- + Heat pump or local, district or geothermal heating system connection each with supply and reflux!
- + For heat pumps or local, district or geothermal heating lines with diameter 110, 90, 75, 50, 40 or 32 mm, optionally available with a diameter of 125 mm
- + For core drilling and casing DN 300 (299 - 303 mm). For precast walls and in-situ concrete walls!
- + External sealing element with sealing flange according to DIN 18533! Seal width: 90 mm
- + Gas- and odour-tight - high-quality in terms of TA-Air!
- + Certified up to 1 bar!
- + Radon tightness IAF tested - according to FHRK leaflet MB 101! Resistant to methane gas!
- + **Torque Control Nut KRASO® DKM:** integrated torque limiter - no torque wrench required!
- + Including all components for a secure grid connection of heat pump, local, district or geothermal heating, water, electricity and telecommunication!
- + Including casing pipe end plugs - warm bridges are avoided!
- + Optionally available: **KRASO® BKP - wall - NFE - Extension Set** - for cable protective hoses, **KRASO® FLS** or rigid casing pipes!
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E





## KRASO® Builder's Convenience Box - wall - NFE **LG5**

multi utility connection for supply lines (local, district or geothermal heating, water, electricity, telecommunication) for buildings with basement | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

| Item  | KRASO® BKP - wall - NFE |
|---|-------------------------|
| Wall thickness from ... to ... in mm          | 200 - 500               |
| Diameter core drilling min ... max ... in mm  | 299 - 303               |
| Length complete system in mm                  | 750                     |
| Length x width internal sealing element in mm | 320 x 320               |
| Diameter external sealing element in mm       | 400                     |
| Seal width external sealing element in mm     | 90                      |
| Internal diameter casing pipes in mm          | 68                      |
| External diameter casing pipes in mm          | 75                      |
| Internal diameter casing pipes NFE in mm      | 118                     |
| External diameter casing pipes NFE in mm      | 125                     |
| <b>KRASO® BKP - wall - NFE</b>                | <b>1,225 €</b>          |

**Scope of supply:** KRASO® Builder's Convenience Box - wall - NFE including

- internal sealing element with 5 casing pipes for the installation of supply lines for heat pump, local, district or geothermal heating (supply and reflux), water, electricity and telecommunication incl. protection covers
- external sealing element
- installation instructions **KRASO® BKP - wall - NFE**
- installation kit including
  - **KRASO® BKP - wall - NFE - Sealing Insert** - 2 pcs. scope of application: 32, 40, 50, 75, 90, 110 mm or blind, optionally available: 125 mm
    - primary sealing + secondary sealing NFE
      - 2 x end plug NFE
      - 2 x hose connection 125/125

- **KRASO® BKP - Sealing Insert - electricity/water** - 2 pcs. with stepless onion ring technology 26 - 50 mm or blind
  - primary sealing + secondary sealing electricity/water
  - casing pipe end plugs including
    - end plug electricity/water - split -
    - hose connection 80
- **KRASO® BKP - Sealing Insert - telecommunication** - clamping range: 5 - 13 mm, 3 x 7 - 13 mm, 13 - 21 mm
  - primary sealing + secondary sealing telecommunication
  - casing pipe end plugs including:
    - end plug telecommunication - split -
    - hose connection 80

optionally available:

- **KRASO® BKP - wall - NFE - Extension Set**

**Further wall thicknesses available on request!**



Single utility connection  
for buildings with basement



KRASO® Builder's Convenience Box  
- wall - ESH  
Check the installation video  
(Just scan the QR code!)



## KRASO® Builder's Convenience Box - wall - ESH

### Convenient, safe, tight connection to the network – gas, water, electricity or telecommunication

- + Simple and safe single utility connection for new buildings or rehabilitation for buildings with basement
- + Flexible installation: gas, water, electricity or telecommunication – including installation / mounting set
- + Double installation possible: electricity and telecommunication!
- + DVGW-certified according to VP 601: complete system is gas- and water pressure tight up to 1 bar!
- + For core drilling and casing DN 100 (99 - 103 mm). For precast walls and in-situ concrete walls!
- + For wall thicknesses from 160 – 500 mm
- + Tight in waterproof concrete structures with stress class 1 (permanently or temporarily pressing water)
- + External sealing element with sealing flange according to DIN 18533! Seal width: 80 mm
- + Radon tightness IAF tested - according to FHRK leaflet MB 101! Resistant to methane gas!
- + Gas- and odour-tight – high-quality in terms of TA-Air!
- + Split end plugs for easy installation!
- + Including extension set
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E



## KRASO® Builder's Convenience Box - wall - ESH **LG5**

(including installation set)

single utility connection for supply lines (gas, water, electricity or telecommunication) for buildings with basement, incl. extension set  
 | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 - E

| Item   | KRASO® BKP - wall - ESH |
|--|-------------------------|
| Wall thickness from ... to ... in mm                       | 160 - 500               |
| Diameter casing or core drilling min ... max ... in mm     | 99 - 103                |
| Length complete system in mm                               | 630                     |
| Length x width internal sealing element in mm              | 120 x 120               |
| Seal width internal sealing element in mm                  | 40                      |
| Diameter external sealing element with flange seal in mm   | 160                     |
| Seal width external sealing element with flange seal in mm | 80                      |
| Internal diameter casing pipe in mm                        | 68                      |
| External diameter casing pipe in mm                        | 75                      |
| <b>KRASO® BKP - wall - ESH</b>                             | <b>277 €</b>            |

**Scope of supply:** KRASO® Builder's Convenience Box - wall - ESH including

- internal sealing element with pre-assembled casing pipe incl. protective cover for the installation of supply lines such as gas, water, electricity or telecommunication
  - external sealing element
  - installation instructions **KRASO® BKP - wall - ESH**
- **KRASO® BKP - wall - ESH - Extension Set** including
  - double sleeve DN 75
  - 2 x sealing ring
  - lubricant

as well as one of the following, optionally available installation kits or BKP gas installation kits:

- **KRASO® BKP - Sealing Insert - electricity/water**  
 with stepless onion ring technology 26 - 50 mm or blind
  - primary sealing + secondary sealing electricity/water
  - casing pipe end plugs including:
    - end plug electricity/water - split -
    - hose connection 80
- **KRASO® BKP - Sealing Insert - telecommunication** -  
 clamping range: 5 - 13 mm, 3 x 7 - 13 mm, 13 - 21 mm
  - primary sealing + secondary sealing telecommunication
  - casing pipe end plugs including:
    - end plug telecommunication - split -
    - hose connection 80

- **KRASO® BKP - Sealing Insert - electricity + telecommunication** -  
 clamping range: electricity 25 - 36 mm / telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm
  - primary sealing + secondary sealing electricity + telecommunication
  - casing pipe end plugs including:
    - end plug electricity + telecommunication
    - hose connection 80
  - a tube of lubricant

- Schuck DN 25 consists of primary and secondary sealing as well as gas end plug
- RMA DN 25 consists of primary and secondary sealing as well as gas end plug
- Voigt DN 25 consists of primary and secondary sealing as well as gas end plug
- Voigt DN 32 consists of primary and secondary sealing as well as gas end plug

**Further wall thicknesses available on request!**

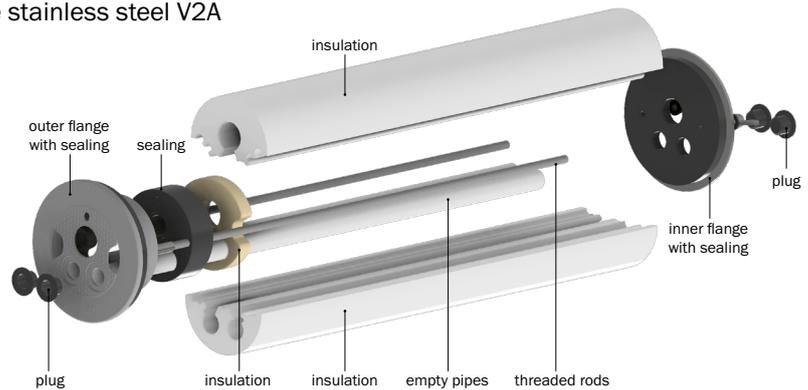




# KRASO® WP-DUO

## The above-ground heat pump connection

- + The fast and simple solution for the heat pump connection: air-to-water
- + Easy installation by one person freehand: core drillings of 100 mm each for supply and reflux
- + For all wall types (plaster, clinker, timber frame construction) and wall thicknesses up to 60 cm
- + Insulated system: avoids thermal bridges and fulfils the requirements of the German Building Energy Act (GEG), soundproof
- + Optionally extendable wall thickness
- + Protection against splash water and driving rain proof
- + Separate installation of supply and reflux, power lines and control cables
- + Metal components made of non-corrosive stainless steel V2A
- + Protection against bird picking
- + For new buildings and rehabilitation



### KRASO® WP-DUO **LG 5**

heat pump connection universal, above-ground for supply or reflux as well as power lines and control cables

| Item   | KRASO® WP-DUO       |
|--|---------------------|
| Wall thickness in mm                             | from 50             |
| Diameter core drilling min ... max ... in mm     | 99 - 103            |
| External diameter in mm                          | 140                 |
| Assignable diameters: electricity/control cables | 2 x 0 - 16 mm       |
| Diameter supply or reflux                        | 1 x 0 or 22 - 30 mm |
| <b>KRASO® WP-DUO - Set</b>                       | <b>479 €</b>        |

Scope of supply: 2 pcs. KRASO® WP-DUO



## KRASO® BKP - Sealing Inserts **LG 5**

installation kits for KRASO® Builder's Convenience Box - floor - **SET** and KRASO® Builder's Convenience Box - wall, wall - NFE and wall - ESH: electricity/water, telecommunication, electricity + telecommunication. Tested in accordance with DVGW!

| Sealing Insert including   |  | Casing pipe end plug (optional) including   |   |   |
|--|--|---|---|---|
| Primary sealing  | Secondary sealing  | End plug  | Hose connection   |   |
|  <p>Primary sealing electricity/water for internal installation of the electricity cable or water pipeline.<br/>Clamping range: 26- 50 mm</p>   |  <p>Secondary sealing electricity/water for internal installation of electricity cable or water pipeline</p>                      |  <p>End plug electricity/water - split - for external installation of electricity cable or water pipeline</p>            |  <p>Hose connection 90/75 for KRASO® BKP - floor - <b>SET</b> for the connection with the casing pipe and fitting of the end plug for electricity/water - split -</p>       |  <p>Hose connection 80 for KRASO® BKP - wall for the connection with the casing pipe and fitting of the end plug for electricity/water - split -</p>       |
|  <p>Primary sealing telecommunication for internal installation of the telecommunication lines<br/>Clamping range: 5 - 13 mm<br/>3 x 7 - 13 mm<br/>13 - 21 mm</p>   |  <p>Secondary sealing telecommunication for internal installation of telecommunication lines</p>                                  |  <p>End plug telecommunication - split - for external installation of telecommunication lines</p>                        |  <p>Hose connection 90/75 for KRASO® BKP - floor - <b>SET</b> for the connection with the casing pipe and fitting of the end plug for telecommunication - split -</p>       |  <p>Hose connection 80 for KRASO® BKP - wall for the connection with the casing pipe and fitting of the end plug for telecommunication - split -</p>       |
|  <p>Primary sealing electricity + telecommunication for internal installation of the electricity- and telecommunication lines<br/>Clamping range: electricity 25 - 36 mm<br/>telecom. 2 x 5 - 10 mm<br/>3 x 7 - 14 mm</p> |  <p>Secondary sealing electricity + telecommunication for internal installation of electricity- and telecommunication lines</p> |  <p>End plug electricity + telecommunication for external installation of electricity- and telecommunication lines</p> |  <p>Hose connection 90/75 for KRASO® BKP - floor - <b>SET</b> for the connection with the casing pipe and fitting of the end plug for electricity + telecommunication</p> |  <p>Hose connection 80 for KRASO® BKP - wall for the connection with the casing pipe and fitting of the end plug for electricity + telecommunication</p> |
| <b>Item</b>  | <b>- electricity/water -</b>   | <b>- telecommunication -</b>  | <b>- electricity + telecommunication -</b>  |   |
| <b>KRASO® BKP - Sealing Insert</b>   |  |   | <b>54 €</b>   |   |
| <b>Casing pipe end plug (optional)</b>   |  |   | <b>32 €</b>   |   |

**Scope of supply:** as an installation kit for electricity/water, telecommunication or electricity + telecommunication, KRASO® BKP - Sealing Insert, including primary sealing and secondary sealing, optionally available casing pipe end plugs including end plug and hose connection 90/80 (floor) or hose connection 80 (wall)



## KRASO® BKP Floor Screed Insert **LG 5**

for KRASO® Builder's Convenience Box - floor - **SET** - 1- to 4-fold, with height fixation, protection foil and lubricant, adjustable height from 0 to 240 mm or 0 to 590 mm

| Item   | 1-fold      | 2-fold       | 3-fold       | 4-fold       |
|--|-------------|--------------|--------------|--------------|
| <b>KRASO® BKP Floor Screed Insert (0 - 240 mm)</b> | <b>55 €</b> | <b>109 €</b> | <b>163 €</b> | <b>217 €</b> |
| <b>KRASO® BKP Floor Screed Insert (0 - 590 mm)</b> | <b>83 €</b> | <b>165 €</b> | <b>248 €</b> | <b>330 €</b> |

**Scope of supply:** KRASO® BKP Floor Screed Insert with height fixation, protection foil and lubricant

**Further heights on request!**



## KRASO® BKP Gas Installation Kits **LG 5**

for anti-twist and tear-off protection of gas utility connections, according to DVGW VP 601, incl. primary and secondary sealing elements, gas end plug, lubricant and self-cutting screws



| Item                                   | KRASO® BKP Gas Installation Kit |             |             |              |
|--|---------------------------------|-------------|-------------|--------------|
| Gas utility connection                 | Schuck DN 25                    | RMA DN 25*  | Voigt DN 25 | Voigt DN 32  |
| <b>KRASO® BKP Gas Installation Kit</b> | <b>64 €</b>                     | <b>64 €</b> | <b>64 €</b> | <b>171 €</b> |

\* For rigid and flexible designs

**Scope of supply:** KRASO® BKP Gas Installation Kit



## KRASO® BKP - Extension Sets **LG 5**

for the extension of the casing pipes for water, electricity and telecommunication in **KRASO® Builder's Convenience Boxes** with a cable protection hose provided on-site

| Item  | KRASO® BKP - Extension Sets |               |               |               |               |
|---|-----------------------------|---------------|---------------|---------------|---------------|
| System <b>KRASO® BKP - floor - SET</b>          | <b>1-fold</b>               | <b>2-fold</b> | <b>3-fold</b> | <b>4-fold</b> | <b>5-fold</b> |
| <b>KRASO® BKP - floor - SET - Extension Set</b> | <b>29 €</b>                 | <b>56 €</b>   | <b>81 €</b>   | <b>108 €</b>  | <b>135 €</b>  |
| <b>KRASO® BKP - wall - Extension Set</b>        | <b>20 €</b>                 |               |               |               |               |
| <b>KRASO® BKP - wall - NFE - Extension Set</b>  | <b>104 €</b>                |               |               |               |               |

**Scope of supply:**

**KRASO® BKP - floor - SET - Extension Set** per system including 1 x hose connection 90 and 2 x shrink hose (DN 90 to DN 75) DN 75

**KRASO® BKP - wall - Extension Set** including 4 x double sleeve DN 75, 8 x sealing ring, lubricant

**KRASO® BKP - wall - NFE - Extension Set** including 6 x heat-shrink hose 95/25, 3 x adapter pipe DN 75

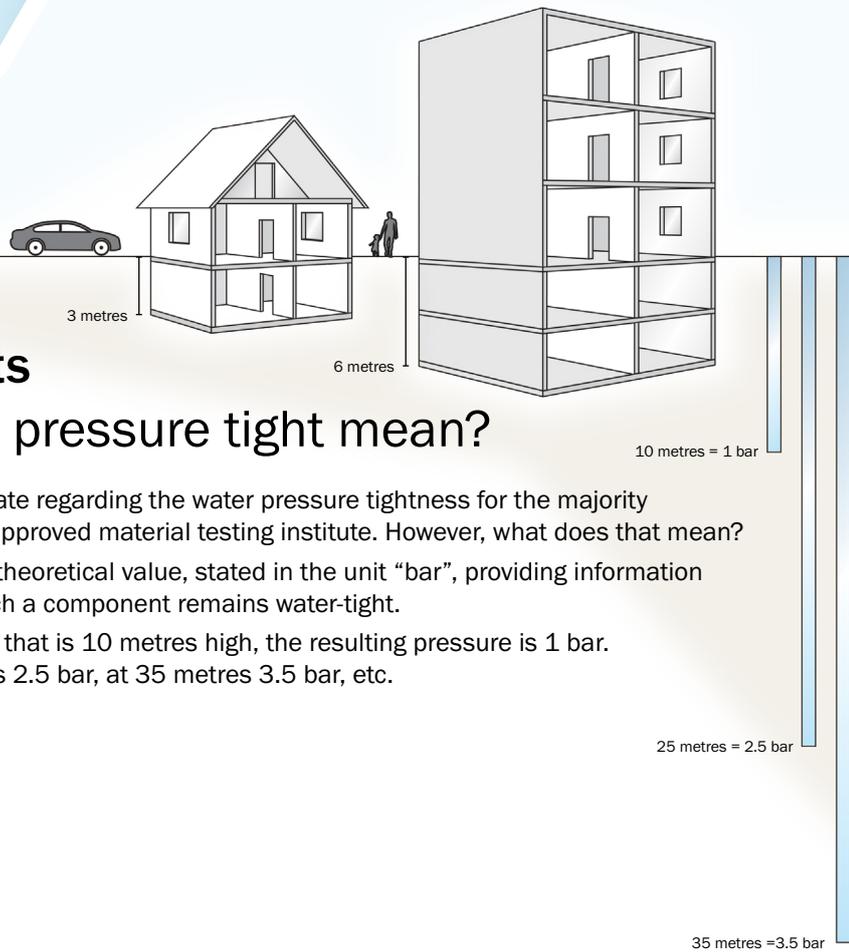


## KRASO® FLS 90 - Flexible Empty Pipe System **LG 4**

flexible empty pipe system as a cable protective hose for the extension of the **KRASO® Builder's Convenience Box - floor - SET** using the **KRASO® BKP - Extension Set**, with a smooth interior for easy cable pulling, smooth exterior for optimal sealing, flexible, increased pressure and vacuum resistance, high axial resistance, resistant to alkalis and acids, resistant to brine and sea water, good UV and ozone resistance, gas-tight and liquid-tight, RoHS-compliant (Restriction of Hazardous Substances), compression resistance 629 N, tests in line with DIN EN 61386-24 lead to the following classifications: type 250 - impact resistance: normal - classification code: N250

| Item  | KRASO® FLS 90                      |
|---|------------------------------------|
| InternalDiameter ID in mm                   | 80                                 |
| External diameter in mm                     | 88                                 |
| Bending radius in mm                        | 200                                |
| Weight in kg/m approx.                      | 1.5                                |
| Material thickness in mm                    | 4                                  |
| Compression resistance                      | 629 N                              |
| Classification according to DIN EN 61386-24 | N250 (reached test force F: 364 N) |
| Stock length in m                           | 30                                 |
| <b>KRASO® FLS 90</b>                        | <b>23 € per metre</b>              |
| <b>Cutting costs*</b>                       | <b>17 €</b>                        |

\* Without discount



## KRASO® Products

### What does water pressure tight mean?

- + You may receive a test certificate regarding the water pressure tightness for the majority of our products issued by an approved material testing institute. However, what does that mean?
- + Water pressure tightness is a theoretical value, stated in the unit “bar”, providing information regarding the pressure at which a component remains water-tight.
- + With a so-called water column that is 10 metres high, the resulting pressure is 1 bar. At a height of 25 metres this is 2.5 bar, at 35 metres 3.5 bar, etc.



## KRASO® Tender for your building project!

- + Free of charge and convenient: find tenders for **KRASO® Products** quickly and easily, including product images and installation situations! Also available as download for your digital tenders, allocation and billing: Word, Excel, PDF, RTF, TXT, GAEB, Datanorm 5, ÖNORM files
- + **KRASO® Tenders**, product lines, company details, contact details etc. on [heinze.de](http://heinze.de)  
**KRASO® Tenders** on [ausschreiben.de](http://ausschreiben.de)



# Utility Connection - Outlets



UTILITY - OUTLETS

## + Floor

KRASO® Builder's Convenience Box - floor - garden - SET

\_\_\_\_\_ 66

## + Wall

KRASO® Builder's Convenience Box - wall - garden

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## + Accessories

KRASO® BKP - garden - Extension Set

\_\_\_\_\_ 67

Convenience  
for the  
garden:  
multi-  
utility connection -  
outlets



mowing robot



Wi-Fi



e-mobility



lighting



watering

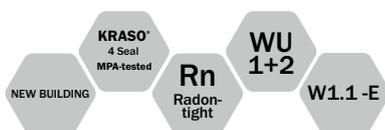


surveillance



pool

UTILITY - OUTLETS



## KRASO® Builder's Convenience Box - floor - garden - SET

For more convenience in the garden!

- + Choose the **KRASO®** Builder's Convenience Box - floor - garden - **SET** for any project in your garden or courtyard: lighting, pool, garden sauna, wall box etc.
- + For buildings without basement: simple and tight routing of electricity, water and telecommunication lines from the utility connection space to the garden!
- + **KRASO® 4 Seal**: exterior sealing of concrete: 10 bar! Radon-tight! Resistant to methane gas!
- + Simple installation due to the stable installation device and visual check of the snap-on socket – helps to avoid installation errors!
- + For flush-mount installation in the base plate – no tripping hazards or wall damages! Including building period protective cover
- + Easy integration of vapour barrier foils due to the roughened trowel flange!
- + Height-adjustable base plate and floor screed
- + Combinable with **KRASO®** Builder's Convenience Box - floor - **SET** as utility connection!
- + Including installation kit with **KRASO® BKP - Sealing Insert - electricity + telecommunication!** clamping range: electricity 25 - 36 mm, telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm
- + Optionally available **KRASO® BKP - Sealing Inserts**:
  - **KRASO® BKP - Sealing Insert - electricity/water**
  - **KRASO® BKP - Sealing Insert - telecommunication**
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1 - E

all systems can be aligned by 360°





All sections  
can be aligned by  
360°

UTILITY - OUTLETS

**KRASO® BKP - floor - garden - SET** = 1 section  
Adaptable!  
Compatible with further sections,  
also with utility connection **KRASO® BKP - floor - SET**

**KRASO® Builder's Convenience Box - floor - garden - SET LG 5**

single utility connection - outlet for electricity, water or telecommunication for buildings without basement incl. cable protective hose (DN 75, 10 metres), incl. installation kit for electricity + telecommunication | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1.1-E

| Item  | KRASO® BKP - floor - garden - SET - 1-fold |
|---|--|
| Height-adjustable to TEUF* in mm from ... to ...  | 1350 - 1400                                |
| Height-adjustable to TEFF** in mm from ... to ... | 12 - 280                                   |
| Bending radius in mm                              | ≥ 1000                                     |
| Dimensions floor screed insert wiping edge in mm  | 141 x 90                                   |
| Incl. cable protective hose DN 75 in metres       | 1 x 10                                     |
| <b>KRASO® BKP - floor - garden - SET - 1-fold</b> | <b>194 €</b>                               |

**Scope of supply:** KRASO® Builder's Convenience Box - floor - garden - SET - 1-fold with cable protective hose (10 metres)

- foot
- foot extension
- pair of supporting bars
- height-adjustable base plate element 1-fold with gas- and water pressure tight **KRASO® 4 Seal**, trowel flange, visual check of the snap-on socket and pre-installed building period installation cover
- height-adjustable **KRASO® BKP Floor Screed Insert** with protective cover and lubricant
- height fixation for **KRASO® BKP Floor Screed Insert**
- installation instructions
- installation kit including
  - **KRASO® BKP - Sealing Insert - electricity + telecommunication** - clamping range: electricity 25 - 36 mm / telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm
    - primary sealing + secondary sealing electricity + telecommunication
    - casing pipe end plugs including
      - end plug electricity + telecommunication
      - hose connection 80
    - a tube of lubricant

\* TEUF = Top Edge Unfinished Floor, \*\* TEFF = Top Edge Finished Floor



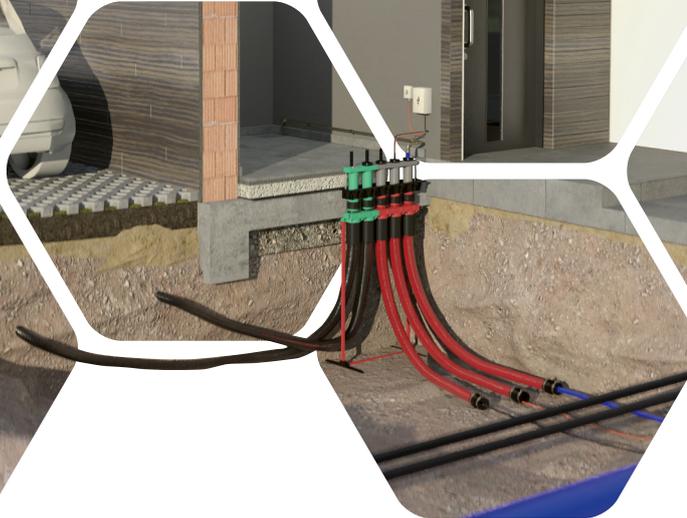
**KRASO® BKP - garden - Extension Set LG 5**

for the extension of the cable protective hoses of **KRASO® BKP - floor - garden - SET** and - wall - garden, incl. 10 metres cable protective hose DN 75

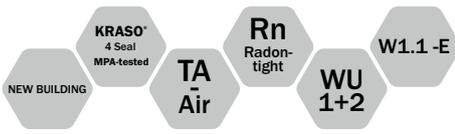
| Item                                       | KRASO® BKP - garden - Extension Set |
|--|-------------------------------------|
| <b>KRASO® BKP - garden - Extension Set</b> | <b>60 €</b>                         |

**Scope of supply:** double plug-in sleeve DN 75, 2 sealing rings, 10 metres cable protective hose DN 75

Combinable utility  
connection entries  
and outlets!



UTILITY - OUTLETS



## KRASO® Builder's Convenience Boxes for buildings without basement

The clever combination of utility connection entries and outlets

- + KRASO® Builder's Convenience Boxes for buildings without basement can combine utility connection entries and outlets: a clean solution for the utility connection space!
- + Flexible empty pipe systems and cable protective hoses in the KRASO® Builder's Convenience Boxes can be aligned in any direction by 360°!
- + Easy installation due to stable installation device and visual check of the snap-on-socket – helps to avoid installation errors!
- + For flush-mount installation in the base plate – no tripping hazards, no wall damages! Including building period protective cover
- + Easy integration of vapour barrier foils due to the roughened trowel flange!
- + Height-adjustable base plate and floor screed
- + Optionally available: KRASO® BKP - garden - Extension Set!
- + DafStB waterproof concrete guideline: 1 + 2, DIN 18533 W1.1 -E





mowing robot



Wi-Fi



e-mobility



lighting



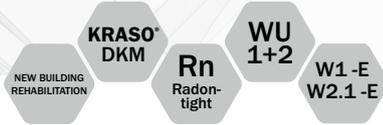
watering



surveillance



Pool



# KRASO® Builder's Convenience Box - wall - garden

## More convenience in the garden

- + Choose the **KRASO® Builder's Convenience Box - wall - garden** for any project in your garden or courtyard: lighting, pool, garden sauna, wall box etc.
- + For core drilling and casing DN 200 (199 - 203 mm). For precast walls and in-situ concrete walls!
- + Tight in waterproof concrete structures with stress class 1 (permanently or temporarily pressing water)
- + Radon-tight! Resistant to methane gas!
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + Split end plugs for easy installation!
- + Ready for the utility connection of water, electricity and network lines: tested in accordance with DVGW! Including **KRASO® BKP - Sealing Inserts** for electricity/water (2 x), telecommunication, electricity + telecommunication
- + Optionally available: external sealing element with sealing flange according to DIN 18533! Seal width: 80 mm
- + DafStB waterproof concrete guideline 1 + 2, with optional external sealing element DIN 18533 W1 -E and W2.1 -E

### KRASO® Builder's Convenience Box - wall - garden **LG 5**

multi utility connection for electricity, water or telecommunication for buildings with basement, incl. installation kits for electricity/water (2 x), telecommunication, electricity + telecommunication | **DafStB waterproof concrete guideline: stress class 1 + 2, optional external sealing element DIN 18533 W1 -E and W2.1 -E**

| Item   | KRASO® BKP - wall - garden |
|--|----------------------------|
| Wall thickness from ... to ... in mm                           | 200 - 500                  |
| Diameter core drilling min ... max ... in mm                   | 199 - 203                  |
| Length complete system in mm                                   | 750                        |
| Length x width internal sealing element in mm                  | 225 x 225                  |
| Diameter external sealing element (optionally available) in mm | 300                        |
| Internal diameter casing pipes in mm                           | 68                         |
| External diameter casing pipes in mm                           | 75                         |
| <b>KRASO® BKP - wall - garden</b>                              | <b>554 €</b>               |
| Optional external sealing element                              | <b>225 €</b>               |

#### Scope of supply:

- **KRASO® Builder's Convenience Box - wall - garden** including
  - internal sealing element with pre-installed casing pipes incl. protective cover for the installation of supply lines such as water, electricity, telecommunication
- installation instructions **KRASO® Builder's Convenience Box - wall**
- installation kits including
  - **KRASO® BKP - Sealing Insert - electricity/water** - 2 pcs. with stepless onion ring technology 26 - 50 mm or blind
    - primary sealing + secondary sealing electricity/water
    - end plug
  - **KRASO® BKP - Sealing Insert - telecommunication** - clamping range: 5 - 13 mm, 3 x 7 - 13 mm, 13 - 21 mm
    - primary sealing + secondary sealing telecommunication
    - end plug
  - **KRASO® BKP - Sealing Insert - electricity + telecommunication** - clamping range: electricity 25 - 36 mm / telecommunication 2 x 5 - 10 mm, 3 x 7 - 14 mm
    - primary sealing + secondary sealing electricity + telecommunication
    - end plug
    - a tube of lubricant
- Optionally available: external sealing element



## KRASO® Mobile

The mobile exhibition stand for your events, in-house exhibitions and campaign days

- + Are you planning an in-house exhibition, an action day, a craftsmen's breakfast or another customised event? We will come to you - with the **KRASO® Mobile**, our mobile exhibition stand - and present **KRASO® Products** and **waterproofing solutions** to your customers!
- + The **KRASO® Mobile** is ready for use as an exhibition stand in just a few minutes: numerous product samples in installation situations, a seating area for in-depth discussions with customers, a large TV screen for presentations!
- + **KRASO® Employees** on site: our waterproofing experts will come to you with the **KRASO® Mobile**, take care of setting up and dismantling and are available to answer all your customers' questions!
- + Information and advertising material: whether information flyers or promotional gifts - the **KRASO® Mobile** has everything a trade fair stand needs
- + Make it easy for yourself: book the **KRASO® Mobile** for your next event – absolutely free of charge! The **KRASO® Mobile** only requires approx. 50 m<sup>2</sup> of floor space and a power connection.

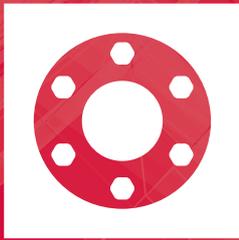


## KRASO®

### Product Trainings

### How to become an expert!

- + We offer regular training courses, where our dealers learn which product provides the right solution for particular sealing situations. At our location in Rhede/North Rhine-Westphalia, participants acquire the necessary knowledge about our products, learn about the areas of application and can discuss with our staff. Afterwards, the participants are real **KRASO® Product Experts** and can provide competent advice on sealing problems and the use of **KRASO® Products**!



# Cable Penetrations

## + Floor

|  |       |    |
|--|-------|----|
| <b>KRASO® Cable Inlet Box System KDS 150</b> | _____ | 77 |
|--|-------|----|

## + Wall

|   |       |    |
|---|-------|----|
| <b>KRASO® Cable Penetration KDS 150 / KRASO® Cable Penetration KDS 150 <b>MAX</b> <b>NEW!</b></b> | _____ | 72 |
| <b>KRASO® Cable Penetration KDS 90</b>  | _____ | 73 |
| <b>KRASO® Cable Penetration KDS 150 single wall penetration with plug-in sleeve</b>               | _____ | 75 |
| <b>KRASO® Cable Penetration KDS 150 single wall penetration with hose connection</b>              | _____ | 75 |
| <b>KRASO® Protrusion Flange FDS 150</b>   | _____ | 75 |
| <b>KRASO® Cable Penetration KDS 150 double wall penetration - 45 degrees</b>                      | _____ | 76 |
| <b>KRASO® Cable Penetration KDS 150 FL/ZA</b>   | _____ | 76 |
| <b>KRASO® Foil Clamping Flange Type FKF - optical fibre <b>NEW!</b></b>                           | _____ | 85 |

## + Roof

|   |       |    |
|---|-------|----|
| <b>KRASO® Swan Neck</b>                         | _____ | 82 |
| <b>KRASO® Swan Neck - thermally insulated -</b> | _____ | 83 |

## + Accessories

|  |       |    |
|--|-------|----|
| <b>KRASO® FLS - Flexible Empty Pipe System</b>                           | _____ | 78 |
| <b>KRASO® Quick Sealing Plug for FLS</b>                                 | _____ | 79 |
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| <b>KRASO® Support rings for corrugated pipes <b>NEW!</b></b>             | _____ | 79 |
| <b>KRASO® Spacer</b>   | _____ | 79 |
| <b>KRASO® System Cover KDS</b>   | _____ | 80 |
| <b>KRASO® System Sealing Insert KDS 150 Universal Multiple - split -</b> | _____ | 81 |
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| <b>KRASO® Y-Wrench</b>   | _____ | 81 |
| <b>KRASO® Sealing Insert Universal Multiple - split -</b>                | _____ | 84 |



**KRASO® Cable Penetration KDS**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Cable Penetration KDS

### Compatible, tight, secure - the double wall penetration system

- + Compatible with all other current systems!
- + Tight due to our water pressure tight **KRASO® 4 Seal** (KDS 90) or double-sided **KRASO® 3 Seal** (KDS 150)
- + Secure due to break-resistant solid wall material!
- + The intelligent, all-purpose and flexible cable penetration system for complex new buildings: public buildings, hospitals, technical-scientific institutions or in the industrial and commercial sector
- + With plug-in system on both sides for forming packages! Horizontal and vertical combination possible!
- + **KRASO® KDS 150 MAX** with integrated trowel flange (5 cm) for integration into the sealing of larger areas according to DIN 18533 W1 -E and W2.1 -E and larger centre distance (270 mm) for the reinforcement.
- + Optimised for the installation in precast walls
- + Certified with the quality seal of the FHRK e. V.
- + The matching accessories for every purpose!
- + DafStB waterproof concrete guideline: stress class 1 + 2

|                           | Centre distance |
|---------------------------|-----------------|
| <b>KRASO® KDS 150 MAX</b> | 270 mm          |
| <b>KRASO® KDS 150</b>     | 210 mm          |
| <b>KRASO® KDS 90</b>      | 135 mm          |

centre distances when forming packages





### KRASO® Cable Penetration KDS 150 double wall penetration **LG 1**

cable penetration system for concreting, for in-situ concrete walls or precast walls, with double-sided gas- and water pressure tight surrounding **KRASO® 3 Seal**, with plug-in system on both sides for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | DafStB waterproof concrete guideline: stress class 1 + 2, **KRASO® KDS 150 MAX** with integrated trowel flange **DIN 18533 W1 -E and W2.1 -E**

| Item  | KRASO® KDS 150 double wall penetration |      |    |    |    |    |    |      |    |    |    |
|---|--|------|----|----|----|----|----|------|----|----|----|
| Available standard wall thicknesses in cm         | 15                                     | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |
| <b>KRASO® KDS 150 double wall penetration</b>     | <b>39 €</b>                            |      |    |    |    |    |    |      |    |    |    |
| <b>KRASO® KDS 150 MAX double wall penetration</b> | <b>46 €</b>                            |      |    |    |    |    |    |      |    |    |    |

**Scope of supply:** KRASO® Cable Penetration KDS 150 double wall penetration, 2 KDS closure covers

**Further wall thicknesses available on request!**



### KRASO® Cable Penetration KDS 150 single wall penetration **LG 1**

cable penetration system for concreting, for in-situ concrete walls or precast walls, with gas- and water pressure tight surrounding **KRASO® 3 Seal** and KDS closure covers, with plug-in system on one side for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | DafStB waterproof concrete guideline: stress class 1 + 2, **KRASO® KDS 150 MAX** with integrated trowel flange **DIN 18533 W1 -E and W2.1 -E**

| Item  | KRASO® KDS 150 single wall penetration |    |    |      |    |    |    |    |    |      |    |    |    |
|---|--|----|----|------|----|----|----|----|----|------|----|----|----|
| Available standard wall thicknesses in cm         | 10                                     | 12 | 15 | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |
| <b>KRASO® KDS 150 single wall penetration</b>     | <b>34 €</b>                            |    |    |      |    |    |    |    |    |      |    |    |    |
| <b>KRASO® KDS 150 MAX single wall penetration</b> | <b>39 €</b>                            |    |    |      |    |    |    |    |    |      |    |    |    |

**Scope of supply:** KRASO® Cable Penetration KDS 150 single wall penetration, KDS closure covers, **KRASO® Cover** as an installation aid

**Further wall thicknesses available on request!**



### KRASO® Cable Penetration KDS 90 double wall penetration **LG 1**

cable penetration system for concreting, with gas- and water pressure tight surrounding **KRASO® 4 Seal**, with plug-in system on both sides for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® KDS 90 double wall penetration |    |      |    |    |    |    |    |      |    |    |    |
|--|---------------------------------------|----|------|----|----|----|----|----|------|----|----|----|
| Available standard wall thicknesses in cm    | 12                                    | 15 | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |
| <b>KRASO® KDS 90 double wall penetration</b> | <b>34 €</b>                           |    |      |    |    |    |    |    |      |    |    |    |

**Scope of supply:** KRASO® Cable Penetration KDS 90 double wall penetration, 2 KDS closure covers

**Further wall thicknesses available on request!**



### KRASO® Cable Penetration KDS 90 single wall penetration **LG 1**

cable penetration system for concreting, with gas- and water pressure tight surrounding **KRASO® 4 Seal** and KDS closure cover, with plug-in system on one side for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASO® KDS 90 single wall penetration |    |      |    |    |    |    |    |      |    |    |    |  |
|--|---------------------------------------|----|------|----|----|----|----|----|------|----|----|----|--|
| Available standard wall thicknesses in cm    | 10 <sup>1</sup>                       | 15 | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |  |
| <b>KRASO® KDS 90 single wall penetration</b> | <b>29 €</b>                           |    |      |    |    |    |    |    |      |    |    |    |  |

<sup>1</sup> For technical production reasons partly KRASO® 2 Seal

**Scope of supply:** KRASO® Cable Penetration KDS 90 single wall penetration, KDS closure covers, **KRASO® Cover** as an installation aid

**Further wall thicknesses available on request!**

CABLE PENETRATIONS



### KRASO® Cable Penetration KDS/DFW 90 double wall penetration **LG 1**

cable penetration system for installation into triple walls, with double-sided gas- and water pressure tight surrounding **KRASO® 2 Seal** and 2 KDS closure covers, with plug-in system on both sides for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASO® KDS/DFW double wall penetration |      |    |    |    |    |    |      |    |    |    |  |
|--|--|------|----|----|----|----|----|------|----|----|----|--|
| Available standard wall thicknesses in cm        | 15                                     | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |  |
| <b>KRASO® KDS/DFW 90 double wall penetration</b> | <b>34 €</b>                            |      |    |    |    |    |    |      |    |    |    |  |

**Scope of supply:** KRASO® Cable Penetration KDS/DFW 90 double wall penetration, 2 KDS closure covers

**Further wall thicknesses available on request!**



### KRASO® Cable Penetration KDS/DFW 90 single wall penetration **LG 1**

cable penetration system for installation into triple walls, with one-sided gas- and water pressure tight surrounding **KRASO® 2 Seal** and KDS closure cover, with plug-in system on one side for forming packages, for the later installation of media lines using a **KRASO® System Sealing Insert** (not included in the scope of supply) or for connecting empty pipe hoses using **KRASO® System Cover** (not included in the scope of supply) | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASO® KDS/DFW 90 single wall penetration |    |      |    |    |    |    |    |      |    |    |    |  |
|--|---|----|------|----|----|----|----|----|------|----|----|----|--|
| Available standard wall thicknesses in cm        | 10 <sup>1</sup>                           | 15 | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |  |
| <b>KRASO® KDS/DFW 90 single wall penetration</b> | <b>29 €</b>                               |    |      |    |    |    |    |    |      |    |    |    |  |

<sup>1</sup> For technical production reasons partly KRASO® 2 Seal

**Scope of supply:** KRASO® Cable Penetration KDS/DFW 90 single wall penetration, KDS closure covers, **KRASO® Cover** as an installation aid

**Further wall thicknesses available on request!**



## KRASO® Cable Penetration KDS 150 single wall penetration with plug-in sleeve **LG 1**

for later installation of cables or pipes using **KRASO® System Sealing Insert KDS 150** (not included in the scope of supply) or **KRASO® System Cover KDS 150** (not included in the scope of supply), with water pressure tight surrounding **KRASO® 3 Seal**, with plug-in system on one side for forming packages, one side with plug-in sleeve including connection for KG, HT or KG 2000 pipes DN 160 | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® KDS 150 single wall penetration with plug-in sleeve |    |    |    |    |      |    |    |    |  |
|--|--|----|----|----|----|------|----|----|----|--|
| Available standard wall thicknesses in cm                                | 20   | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |  |
| <b>KRASO® KDS 150</b><br>single wall penetration with plug-in sleeve     | <b>48 €</b>  |    |    |    |    |      |    |    |    |  |
| <b>KRASO® KDS 150 MAX</b><br>single wall penetration with plug-in sleeve | <b>55 €</b>  |    |    |    |    |      |    |    |    |  |

**Scope of supply:** KRASO® Cable Penetration KDS 150 single wall penetration with plug-in sleeve, KDS 150 closure cover and KRASO® Cover as an installation aid

**Further wall thicknesses available on request!**



## KRASO® Cable Penetration KDS 150 single wall penetration with hose connection **LG 1**

for later installation of cables or pipes using **KRASO® System Sealing Insert KDS 150** (not included in the scope of supply) or **KRASO® System Cover KDS 150** (not included in the scope of supply), with water pressure tight surrounding **KRASO® 3 Seal**, with plug-in system on one side for forming packages, one side with hose connection e.g. for **KRASO® FLS - Flexible Empty Pipe System** | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® KDS 150 single wall penetration with hose connection |
|--|---|
| <b>KRASO® KDS 150</b> single wall penetration with hose connection 110     | <b>113 €</b>  |
| <b>KRASO® KDS 150</b> single wall penetration with hose connection 160     | <b>117 €</b>  |
| <b>KRASO® KDS 150 MAX</b> single wall penetration with hose connection 110 | <b>123 €</b>  |
| <b>KRASO® KDS 150 MAX</b> single wall penetration with hose connection 160 | <b>127 €</b>  |

**Scope of supply:** KRASO® Cable Penetration KDS 150 single wall penetration with hose connection

**Further wall thicknesses available on request!**

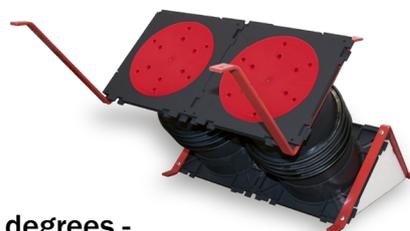


## KRASO® Protrusion Flange FDS 150

protrusion flange made of stainless steel-reinforced plastic, for dowel-fixing in front of a core drilling for the connection of **KRASO® System Cover KDS 150** with hose adapter for **KRASO® FLS**, **KRASO® System Sealing Insert KDS 150** | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1-E and W2.1-E

| Item                                    | KRASO® Protrusion Flange FDS 150 |
|---|----------------------------------|
| <b>KRASO® Protrusion Flange FDS 150</b> | <b>116 €</b>                     |

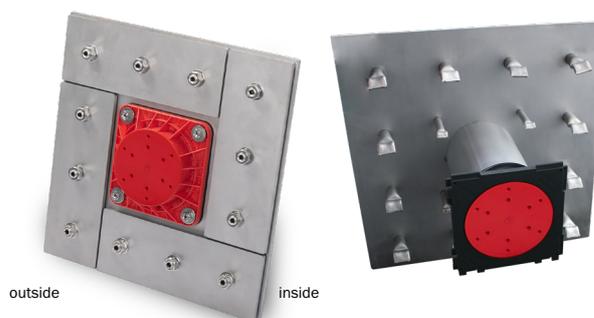
**Scope of supply:** KRASO® Protrusion Flange FDS 150 with EPDM flat seal, fixing material, adhesive and sealant **KRASO® PU 50**



## KRASO® Cable Penetration KDS 150 double wall penetration - 45 degrees -

with pre-installed clamps and styrofoam holders for installation at an angle of 45° | DafStB waterproof concrete guideline: stress class 1 + 2

Prices on request! Weitere Neigungswinkel möglich!



## KRASO® Cable Penetration KDS 150 FL/ZE double wall penetration

cable penetration KDS 150 FL/ZE double wall penetration, with fixed-loose flange and exterior protrusion flange FDS 150 for concreting, for installation of media pipes using KRASO® System Sealing Inserts KDS 150 (not included in the scope of supply) or for connection of KRASO® KDS 150 Accessories (e.g. system cover) with bayonet fitting, made of non-corrosive stainless steel V2A, one side with water pressure tight surrounding KRASO® 2 Seal, for buildings with exterior sealing ("black tank") against pressing / non-pressing water according to DIN 18533. Available in non-corrosive stainless steel V2A or with special coating | DIN 18533 W1-E and W2.2-E

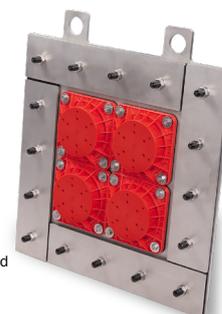
| KRASO® Cable Penetration KDS 150 FL/ZE double wall penetration - DIN 18533 W2.2-E: HIGH IMPACT OF PRESSING WATER (WATER COLUMN ≥ 3 METRES) |  |
|--|--|
| Pipe InternalDiameter ID   | 155  |
| Available standard wall thicknesses in cm  | 15 · 17.5 · 20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50 |
| Dimensions fixed-flange  | Dimensions a x b 577 mm - t = 10 mm                      |
| Dimensions loose-flange  | Dimensions a x b 567 mm - t = 10 mm                      |
| KRASO® KDS 150 FL/ZE double wall penetration - non-corrosive stainless steel V2A -   | 1,251 €  |
| EPDM supplement (2 pcs.)   | 69 €   |
| KRASO® KDS 150 FL/ZE double wall penetration with special coating - non-corrosive stainless steel V2A -                                    | 1,325 €  |

| KRASO® Cable Penetration KDS 150 FL/ZE double wall penetration - DIN 18533 W1-E: SOIL MOISTURE AND NON-PRESSING WATER |  |
|---|--|
| Pipe InternalDiameter ID  | 155  |
| Available standard wall thicknesses in cm   | 15 · 17.5 · 20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50 |
| Dimensions fixed-flange   | Dimensions a x b 397 mm - t = 6 mm                       |
| Dimensions loose-flange   | Dimensions a x b 387 mm - t = 6 mm                       |
| KRASO® KDS 150 FL/ZE double wall penetration - non-corrosive stainless steel V2A -                                    | 898 €  |
| EPDM supplement (2 pcs.)  | 50 €   |
| KRASO® KDS 150 FL/ZE double wall penetration with special coating - non-corrosive stainless steel V2A -               | 966 €  |

**Scope of supply:** KRASO® Cable Penetration KDS 150 FL/ZE double wall penetration, with fixed-loose flange and exterior KRASO® Protrusion Flange FDS 150, 2 KDS 150 closure covers, adhesive and sealant KRASO® PU 50

Further wall thicknesses available on request! Also available in V4A! Also available as formed packages!

KRASO® Cable Penetration KDS 150 FL/ZA as multiple wall penetration - with fixed-loose flange and exterior Protrusion Flange FDS 150, for dowel-fixing (special design)





**KRASO®**  
Cable Inlet Box System KDS 150  
Check the installation video  
(Just scan the QR code!)



**KRASO®** Cable Inlet Box System KDS 150 available with **KRASO®** Trowel Flange roughened plastic-trowel flange for the integration into the floor sealing / sealing sheets



NEW BUILDING

**3.5 bar**

**Rn**  
Radon-tight

**TA**  
Air

**WU**  
1+2

**W1 - E**  
FLANGE

CABLE PENETRATIONS

## KRASO® Cable Inlet Box System KDS 150

The flexible system for industry and commercial buildings

- + The secure and reliable way for the installation of cables and pipes right into buildings: with a radius of 650 mm or 1000 mm main pipes and cable protective hoses can be connected at a 90-degree angle to buildings without basements
- + **KRASO® Cable Penetration System KDS 150**: flexible and combinable in various ways
- + The **KRASO® Cable Inlet Box System KDS 150** can be expanded to any number of rows thanks to the plug-in system - depending on your requirements!
- + For the installation of cables and pipes such as water, electricity, telecommunication etc. into buildings without a basement: the perfect solution for industrial and commercial buildings!
- + Sealing of the base plate by water pressure tight surrounding **KRASO® 4 Seal**
- + With stable installation device for correct positioning before concreting
- + Flexible plug-in possibilities on the outer side using **KRASO® Cable Penetration System KDS 150**
- + Additional media pipe sealing from the inside using **KRASO® Sealing Inserts**
- + Included in the scope of supply: **KRASO® KDS 150 Empty Pipe Insert** with bayonet fitting for a floor construction with floor heating, insulation and screed
- + DafStB waterproof concrete guideline: stress class 1 + 2, with optional trowel flange DIN 18533 W1 -E

### KRASO® Cable Inlet Box System KDS 150 **LG 2**

for the installation of cables and utility lines such as e.g. water - electricity - telecommunication etc. in buildings without basement. Attention: do not use a **KRASO® System Sealing Insert KDS 150**, but use **KRASO® Sealing Inserts** instead (see p. 17 - 21)! | **DafStB waterproof concrete guideline: stress class 1 + 2, with optional trowel flange DIN 18533 W1 -E**

| Item  | KRASO® Cable Inlet Box System KDS 150 |                |                |                |
|---|---------------------------------------|----------------|----------------|----------------|
|   | 1 x 1                                 | 1 x 2          | 1 x 3          | 1 x 4          |
| Available standard systems  |                                       |                |                |                |
| <b>KRASO® Cable Inlet Box System KDS 150 - bending radius 650 mm</b>  | <b>589 €</b>                          | <b>990 €</b>   | <b>1,361 €</b> | <b>1,696 €</b> |
| <b>KRASO® Cable Inlet Box System KDS 150 - bending radius 1000 mm</b> | <b>658 €</b>                          | <b>1,106 €</b> | <b>1,521 €</b> | <b>1,896 €</b> |

**Scope of supply:** **KRASO® Cable Inlet Box System KDS 150**, **KRASO® KDS 150 Empty Pipe Insert** 25 cm, 90° empty pipe system, installation device and KDS 150 closure cover

**Further combinations available on request!**

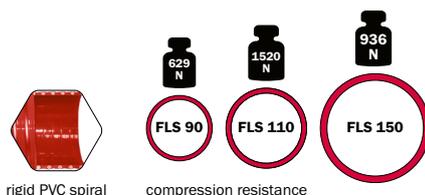


Always the right accessories!

## KRASO® KDS - Accessories

### For KRASO® Cable Penetration KDS and Cable Inlet Box System KDS 150

- + With the appropriate accessories **KRASO® Cable Penetrations KDS 90 / KDS 150** as wall penetrations and **KRASO® Cable Inlet Box System KDS 150** can be combined to a complete individual system - as it is required for challenging construction projects.
- + Our experts are happy to assist you regarding the numerous possibilities – even on your construction site!



### KRASO® FLS - Flexible Empty Pipe System **LG 4**

flexible empty pipe system as a cable protective hose for gas- and water tight connection to **KRASO® Cable Penetration KDS**, over-pressures of 4 or 3 bar, under-pressures of 0.7 or 0.5 bar, heavy design for high mechanical load, smooth interior for smooth cable pulling, smooth exterior for optimal sealing, flexible, enhanced resistance against pressure and vacuum, high axial resistance, resistant to alkalis and acids, resistant to brine and sea water, good UV and ozone resistance, gas-tight and liquid-tight, RoHS compliant (Restriction of Hazardous Substances)

| Item                                   | KRASO® FLS 90                      | KRASO® FLS 110*                    | KRASO® FLS 150* **                 |
|--|------------------------------------|------------------------------------|------------------------------------|
| InternalDiameter ID in mm              | 80                                 | 101                                | 150                                |
| External diameter in mm                | 88                                 | 113                                | 163                                |
| Bending radius in mm                   | 200                                | 350                                | 600                                |
| Weight in kg/m approx.                 | 1.5                                | 2.9                                | 4.3                                |
| Material thickness in mm               | 4                                  | 6                                  | 6,5                                |
| Compression resistance                 | 629 N                              | 1520 N                             | 936 N                              |
| Classification acc. to DIN EN 61386-24 | N250 (reached test force F: 364 N) | N250 (reached test force F: 293 N) | N250 (reached test force F: 388 N) |
| Stock length in m                      | 30                                 | 30                                 | 3 / 10 / 25                        |
| <b>KRASO® FLS</b>                      | <b>23 € per metre</b>              | <b>35 € per metre</b>              | <b>45 € per metre</b>              |
| Cutting costs***                       | 17 €                               | 23 €                               | -                                  |

\* Minimum order 10 m \*\* Freight charges for **KRASO® FLS 150** only on request \*\*\* No discount applicable



### KRASO® Quick Sealing Plug for FLS **LG 1**

for sealing the KRASO® FLS - Flexible Empty Pipe System

| Item                              | KRASO® Quick Sealing Plug for FLS |         |         |
|-----------------------------------|-----------------------------------|---------|---------|
| FLS                               | FLS 90                            | FLS 110 | FLS 150 |
| KRASO® Quick Sealing Plug for FLS | 46 €                              | 53 €    | 65 €    |

Further diameters available on request!



### KRASO® Hose Connection **LG 1**

for the connection of e.g. KRASO® FLS - Flexible Empty Pipe System

| Item                       | Hose Connection 90 | Hose Connection 110 | Hose Connection 125 | Hose Connection 150 |
|----------------------------|--------------------|---------------------|---------------------|---------------------|
| Scope of application in mm | 80 - 90            | 100 - 115           | 110 - 125           | 150 - 165           |
| KRASO® Hose Connection     | 53 €               | 71 €                | 75 €                | 79 €                |



### KRASO® Support Rings for corrugated pipes **LG 1**

for ribbed/corrugated cable protective hoses\* in combination with KRASO® System Covers KDS with hose adapter, for even contact pressure and to prevent deformation, non-corrosive stainless steel V2A

| Item                                      | KRASO® Support Rings for corrugated pipes |         |         |         |         |         |
|---|---|---------|---------|---------|---------|---------|
| Diameter DN                               | 63  | 75      | 90      | 110     | 125     | 160     |
| KRASO® Support Rings for corrugated pipes | 11.10 €                                   | 11.80 € | 12.90 € | 17.80 € | 21.55 € | 32.75 € |

\*Profile geometry suitable for corrugated pipe manufacturer Fränkische Rohrwerke, pipe type 'KABUFLEX'. Other brands available on request.

**Scope of supply:** 2 pieces KRASO® Support Rings for corrugated pipes

Further diameters available on request!



### KRASO® Spacer **LG 1**

guarantees sufficient distance between flexible empty pipes, light, impact resistant, weather- and rot-proof plastic spacer

| Item                       | KRASO® Spacer 110 | KRASO® Spacer 150 |
|----------------------------|-------------------|-------------------|
| Internal Diameter ID in mm | 110               | 165               |
| KRASO® Spacer 1 x 2        | 15 €              | 16 €              |
| KRASO® Spacer 2 x 2        | 19 €              | 20 €              |
| KRASO® Spacer 2 x 4        | 24 €              | 25 €              |

Further spacers available on request!



### KRASO® System Cover KDS 150 with hose adapter **LG 1**

incl. bayonet fitting with union nut and anti-twist lock, hose adapter for the connection of **KRASO® FLS**, PE corrugated pipes or PVC and PP pipes to **KRASO® Cable Penetration KDS 150**. In combination with **KRASO® FLS** water pressure tight up to 2.5 bar. Scope of application as per table below | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | Hose adapter 110 | Hose adapter 125 | Hose adapter 160 |
|--|------------------|------------------|------------------|
| Scope of application in mm                           | 100 - 115        | 110 - 125        | 150 - 165        |
| <b>KRASO® System Cover KDS 150 with hose adapter</b> | <b>85 €</b>      | <b>89 €</b>      | <b>92 €</b>      |

**Scope of supply:** KRASO® System Cover KDS 150 with hose adapter



### KRASO® System Cover KDS 150 with sleeve **LG 1**

incl. bayonet fitting with union nut and anti-twist lock, sleeve for the connection of PVC and PP pipes to **KRASO® Cable Penetration KDS 150**

| Item   | KRASO® System Cover KDS 150 with sleeve |             |             |
|--|---|-------------|-------------|
| Diameter DN                                    | 110                                     | 125         | 160         |
| <b>KRASO® System Cover KDS 150 with sleeve</b> | <b>79 €</b>                             | <b>84 €</b> | <b>86 €</b> |

**Scope of supply:** KRASO® System Cover KDS 150 with sleeve



### KRASO® System Cover KDS 150 - heat-shrink technology - **LG 1**

incl. bayonet fitting with union nut and anti-twist lock (prevents unintentional opening), with 1, 3 or 7 adapters for installation of pipes or cables, incl. shrink hose (length approx. 20 cm), connection via heat-shrink technology, **KRASO® System Cover KDS 150 - heat-shrink technology - 3-fold** and **7-fold** with factory-installed, water pressure tight cover, simple opening by knocking off before installation (on-site), scope of application as per table below | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | System Cover KDS 150 1-fold - heat-shrink technology - | System Cover KDS 150 3-fold - heat-shrink technology - | System Cover KDS 150 7-fold - heat-shrink technology - |
|---|--|--|--|
| Diameter pipe or cable from ... to ... in mm                  | 1 x 34 - 115   | 3 x 22 - 59  | 7 x 13 - 33  |
| <b>KRASO® System Cover KDS 150 - heat-shrink technology -</b> | <b>96 €</b>  | <b>105 €</b>   | <b>118 €</b>   |

**Scope of supply:** KRASO® System Cover KDS 150 - heat-shrink technology - 1-fold, 3-fold, 7-fold with shrink hose/shrink hoses

**Further diameters available on request!**



### KRASO® System Cover KDS 90 with hose adapter 90 **LG 1**

incl. bayonet fitting, hose adapter for connection of **KRASO® FLS**, PE corrugated pipes or PVC pipes to **KRASO® Cable Penetration KDS 90** | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® System Cover KDS 90 with hose adapter 90 |
|--|---|
| Scope of application in mm                             | 80 - 95   |
| <b>KRASO® System Cover KDS 90 with hose adapter 90</b> | <b>83 €</b>                                     |

**Scope of supply:** KRASO® System Cover KDS 90 with hose adapter 90

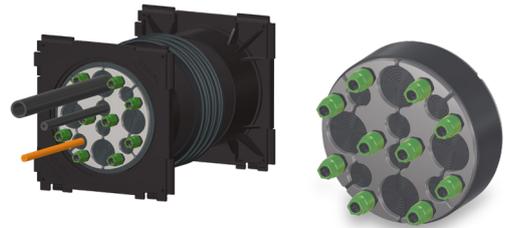


## KRASO® System Cover KDS 90 with shrink hose **LG 1**

KRASO® System Cover KDS 90 including shrink hose

| Item   | KRASO® System Cover KDS 90 with shrink hose |
|--|---|
| For all pipes and cables according to the table on the right (in mm) | 1 x 25 - 95                                 |
| <b>KRASO® System Cover KDS 90 with shrink hose</b>                   | <b>43 €</b>                                 |

Scope of supply: KRASO® System Cover KDS 90 with shrink hose



## KRASO® System Sealing Insert KDS 150 Universal Multiple - split - **LG 1**

for installation of one or several media lines/cables, for installation into the bayonet fitting of **KRASO® Cable Penetration KDS 150**, split design for retrofit installation, **Torque Control Nut KRASO® DKM**, 30 mm seal, external diameter 160 mm, specifically for the use in cable penetrations | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASO® System Sealing Insert KDS 150 Universal Multiple - split - |                        |  |                        |
|--|---|------------------------|--|------------------------|
|  | Universal   | Design 1               | Design 2   | Design 3               |
| Drillings or stepless onion ring technology: external cable diameter from ... to ... in mm | 1 x 63, 75, 90 or 110 mm  | 3 x 6 - 52 mm or blind | 4 x 6 - 18 mm or blind<br>6 x 6 - 33 mm or blind | 6 x 6 - 38 mm or blind |
| <b>KRASO® System Sealing Insert KDS 150 Universal Multiple - split -</b>                   | <b>119 €</b>  | <b>142 €</b>           | <b>142 €</b>                                     | <b>142 €</b>           |

Further special designs available on request!



## KRASO® System Sealing Insert KDS 90 Universal **LG 1**

system sealing insert especially for installation in **KRASO® Cable Penetration KDS 90**, 20 mm seal, against pressing water up to 1 bar, **Torque Control Nut KRASO® DKM**, non-corrosive stainless steel V2A. Also usable as blind plug until feed-through of pipes or cables. | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® System Sealing Insert KDS 90 Universal |
|---|---|
| Stepless onion ring technology: external cable diameter from ... to ... in mm | 6 - 52 mm or blind                            |
| <b>KRASO® System Sealing Insert KDS 90 Universal</b>                          | <b>83 €</b>                                   |
| <b>KRASO® System Sealing Insert KDS 90 Universal - split -</b>                | <b>92 €</b>                                   |

Further special designs on request!



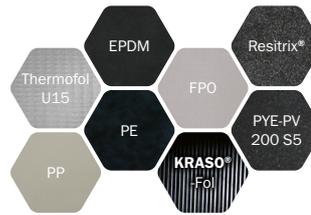
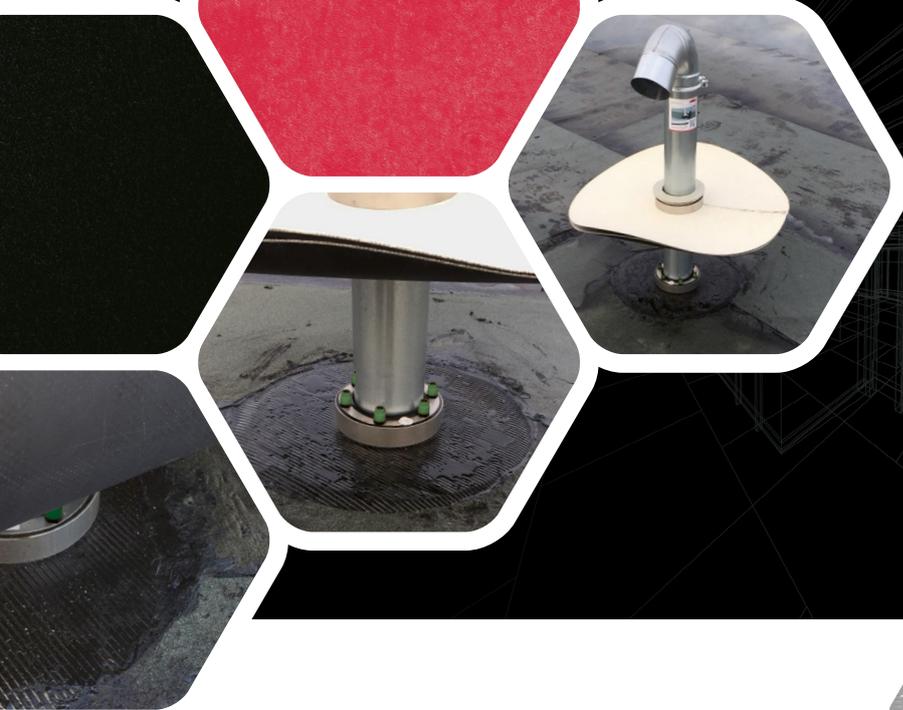
## KRASO® Y-Wrench **LG 1**

Y-Wrench to open/close the KDS closure cover, available for **KRASO® Cable Penetration KDS 90** and **KDS 150**

| Item                       | KRASO® Y-Wrench |
|----------------------------|-----------------|
| <b>KRASO® Y-Wrench 90</b>  | <b>53 €</b>     |
| <b>KRASO® Y-Wrench 150</b> | <b>62 €</b>     |



**KRASO® Swan Neck**  
Check the installation video  
(Just scan the QR code!)



## **KRASO® Swan Neck** Innovative, secure, tight – the **KRASO® Flat Roof Penetration**

- + Integration in the roof sealing sheeting using **KRASO® Foil Clamping Flange Type FKF**: oil- and bitumen resistant, water pressure tightness tested up to 2.5 bar
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + UV protection with surrounding peripheral drip edge and anti-twist lock
- + Can be swivelled by 360 degrees!
- + Flat roof penetration available made of galvanised steel, non-corrosive stainless steel V2A or V4A. Also available as thermally insulated version!
- + We can adjust the type of sealing sheets or foils:  
e.g. EPDM, Thermofol U15, FPO, Resitrix®, PP, PE, **KRASO®-Fol**, PYE-PV 200 S5 etc.
- + Included in the scope of supply: fastening dowels M8 x 100 V2A and EPDM sealing, adhesive and sealant **KRASO® PU 50**.

**KRASO® Swan Neck**  
- thermally insulated -





## KRASO® Swan Neck **LG2**

flat roof penetration for installation of cables using **KRASO® Sealing Insert Universal Multiple - split** - (not included in the scope of supply), integration in the roof sealing sheeting using **KRASO® Foil Clamping Flange Type FKF**

| Item  | KRASO® Swan Neck                                 |  |  |   |
|---|--|--|--|---|
|   | 100*   | 150*   | 200*   | 300**   |
| Nominal Width NW  | 100*   | 150*   | 200*   | 300**   |
|   | Diameter pipe or cable from ... to ... in mm     |  |  |   |
| Design 1  | 4 x 6 - 33 mm or blind                           | 3 x 6 - 52 mm or blind                           | 3 x 6 - 28 mm or blind<br>4 x 6 - 52 mm or blind | e.g. 3 x 0 - 110 mm<br>or 5 x 0 - 85 mm<br>or 9 x 0 - 63 mm |
| Design 2  | 3 x 6 - 18 mm or blind<br>2 x 6 - 33 mm or blind | 4 x 6 - 18 mm or blind<br>6 x 6 - 33 mm or blind | 7 x 6 - 18 mm or blind<br>8 x 6 - 33 mm or blind |   |
| Design 3  | 8 x 6 - 18 mm or blind                           | 6 x 6 - 38 mm or blind                           | -  |   |
| <b>KRASO® Swan Neck - galvanised -</b>                        | <b>799 €</b>                                     | <b>937 €</b>                                     | <b>1,290 €</b>                                   | <b>1,776 €</b>  |
| <b>KRASO® Swan Neck - non-corrosive stainless steel V2A -</b> | <b>999 €</b>                                     | <b>1,172 €</b>                                   | <b>1,612 €</b>                                   | <b>2,221 €</b>  |
| <b>Surcharge: second sealing layer</b>                        | <b>233 €</b>                                     | <b>326 €</b>                                     | <b>408 €</b>                                     | <b>764 €</b>  |

\* KRASO® Sealing Insert Universal Multiple - split - (not included in the scope of supply) \*\* KRASO® Sealing Insert Type SD-T 300 (not included in the scope of supply)

**Scope of supply:** KRASO® Swan Neck, EPDM seal, KRASO® Foil Clamping Flange Type FKF, UV protection, fastening dowels M8 x 100 V2A, adhesive and sealant KRASO® PU 50

**Further sizes available on request!**

## KRASO® Swan Neck - thermally insulated - **LG2**

flat roof penetration, for dowel-fixing, for installation of cables using **KRASO® Sealing Insert Universal Multiple - split** - (not included in the scope of supply), can be swivelled by 360°, integration in the roof sealing sheeting using **KRASO® Foil Clamping Flange Type FKF**, oil- and bitumen resistant, Torque Control Nut **KRASO® DKM**, UV protection with surrounding peripheral drip edge and anti-twist lock, foot seal with EPDM seal for the opening of the roof

| Item  | KRASO® Swan Neck - thermally insulated -         |  |  |   |
|---|--|--|--|---|
|   | 100*   | 150*   | 200*   | 300**   |
| Nominal Width NW  | 100*   | 150*   | 200*   | 300**   |
|   | Diameter pipe or cable from ... to ... in mm     |  |  |   |
| Design 1  | 4 x 6 - 33 mm or blind                           | 3 x 6 - 52 mm or blind                           | 3 x 6 - 28 mm or blind<br>4 x 6 - 52 mm or blind | e.g. 3 x 0 - 110 mm<br>or 5 x 0 - 85 mm<br>or 9 x 0 - 63 mm |
| Design 2  | 3 x 6 - 18 mm or blind<br>2 x 6 - 33 mm or blind | 4 x 6 - 18 mm or blind<br>6 x 6 - 33 mm or blind | 7 x 6 - 18 mm or blind<br>8 x 6 - 33 mm or blind |   |
| Design 3  | 8 x 6 - 18 mm or blind                           | 6 x 6 - 38 mm or blind                           | -  |   |
| <b>KRASO® Swan Neck - thermally insulated - galvanised -</b>                        | <b>1,386 €</b>                                   | <b>1,719 €</b>                                   | <b>2,301 €</b>                                   | <b>2,813 €</b>  |
| <b>KRASO® Swan Neck - thermally insulated - non-corrosive stainless steel V2A -</b> | <b>1,871 €</b>                                   | <b>2,322 €</b>                                   | <b>3,107 €</b>                                   | <b>3,797 €</b>  |
| <b>Surcharge: second sealing layer</b>  | <b>317 €</b>                                     | <b>395 €</b>                                     | <b>539 €</b>                                     | <b>887 €</b>  |

\* KRASO® Sealing Insert Universal Multiple - split - (not included in the scope of supply) \*\* KRASO® Sealing Insert Type SD-T 300 (not included in the scope of supply)

**Scope of supply:** KRASO® Swan Neck - thermally insulated -, EPDM seal, KRASO® Foil Clamping Flange Type FKF, UV protection, fastening dowels M8 x 100 V2A, adhesive and sealant KRASO® PU 50

**Further sizes available on request! Mounting possibility for trapezoidal sheet roofs on request!**



KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 1



KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 3



KRASO® Sealing Insert Universal  
Multiple - split - 150  
Design 1



KRASO® Sealing Insert Universal  
Multiple - split - 150  
Design 2



KRASO® Sealing Insert Universal  
Multiple - split - 100  
Design 2



KRASO® Sealing Insert Universal  
Multiple - split - 200  
Design 2



## KRASO® Sealing Insert Universal Multiple - split - Universally usable – multiply flexible

- + For core drillings and casings
- + Stepless onion ring technology: universally usable for various external diameters of media lines/cables - also for multiple installation! 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:** integrated torque limiter - no torque wrench required!
- + MPA-tested: protects reliably against pressing 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!
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2

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

for the installation of several media lines/cables, split design for retrofit installation | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | KRASO® Sealing Insert Universal Multiple - split - |                        |  |  |
|---|--|------------------------|--|--|
|   | 100  | 125                    | 150  | 200  |
| Core drilling / casing in mm  | 100  | 125                    | 150  | 200  |
| Stepless onion ring technology: external cable diameter 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<br>4 x 6 - 52 mm or blind |
| Design 2  | 3 x 6 - 18 mm or blind<br>2 x 6 - 33 mm or blind   | -                      | 4 x 6 - 18 mm or blind<br>6 x 6 - 33 mm or blind | 7 x 6 - 18 mm or blind<br>8 x 6 - 33 mm or blind |
| Design 3  | 8 x 6 - 18 mm or blind                             | -                      | 6 x 6 - 38 mm or blind                           | -  |
| <b>KRASO® Sealing Insert Universal Multiple - split -</b>                     | <b>107 €</b>                                       | <b>115 €</b>           | <b>162 €</b>                                     | <b>251 €</b>                                     |

Further arrangements available at short notice!



# KRASO® Foil Clamping Flange Type FKF - optical fibre

## Optical fibre connection – fast and easy

- + Simple, quick and cost-effective solution – no core drilling required: a simple 10 mm diameter hole is sufficient!
- + Universally applicable: masonry with area sealing or wall made of waterproof concrete
- + 15 cm surrounding, oil and bitumen-resistant foil flange with self-adhesive butyl sealing membrane
- + Easy installation thanks to **Torque Control Nut KRASO® DKM**
- + Suitable for “black and white tanks”



CABLE PENETRATIONS

KRASO® Foil Clamping Flange Type FKF - optical fibre with pressure roller



### KRASO® Foil Clamping Flange Type FKF - optical fibre **LG 1**

utility connection entry of optical fibre cables without core drilling, with foil flange 1.2 mm, in accordance with DIN 16937, oil- and bitumen resistant, approx. 15 cm surrounding, 30 mm seal

| Item   | KRASO® Foil Clamping Flange Type FKF - optical fibre |
|--|--|
| KRASO® Foil Clamping Flange Type FKF - optical fibre | 49 €   |

Scope of supply: KRASO® Foil Clamping Flange Type FKF - optical fibre, pressure roller



## KRASO® Products with SHI product passport Low in pollutants and eligible for funding – QNG-ready for sustainable construction!

The **sustainable building quality seal** is a government seal that confirms that a building meets ecological, social and economic sustainability requirements. To this end, the construction products used must also meet specified criteria and pollutant requirements.

**We take responsibility for our environment and our customers.**

Therefore we have had our products tested for harmful substances by the **Sentinel Holding Institute (SHI)**, thereby fulfilling the requirements for KfW funding eligibility under the QNG building seal. Our products carry the SHI seal 'QNG-ready' and are listed in the SHI database.

**Why is this important for you?**

- + **Reduced pollution:** testing by the Sentinel Holding Institute (SHI) confirms that our products meet strict criteria for harmful substances – for greater safety, a healthier living environment and well-being within your own home.
- + **Economic efficiency:** our products have been tested and certified for the avoidance of harmful substances. Thanks to KfW eligibility under the government's Quality Seal for Sustainable Buildings (QNG), you benefit from financial advantages – a future-oriented step that combines safety, quality and cost-effectiveness.



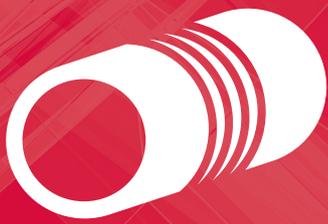
Click here for  
**KRASO® Products**  
in the SHI database



As a central digital document, the **SHI product passport** brings together the most important product-related criteria and standards from:

- ✓ DGNB
- ✓ QNG
- ✓ BNB
- ✓ BREEAM

This means quick material selection with up-to-date data and secure documentation!



# Pipe Penetrations

## + Floor and Wall Penetrations

|   |     |
|---|-----|
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## + Drains

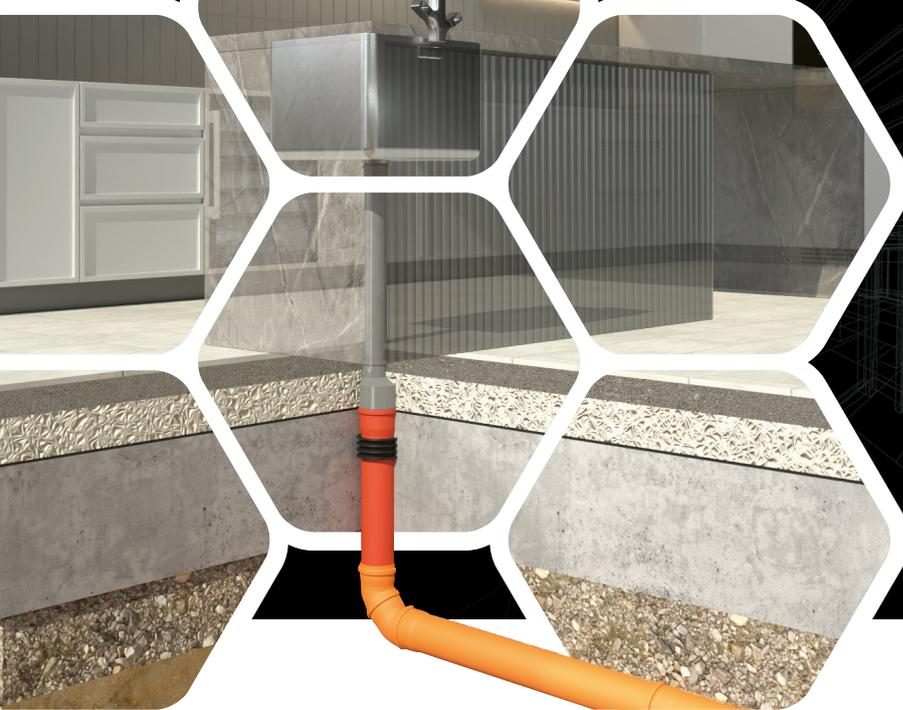
|  |     |
|--|-----|
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## + Casings

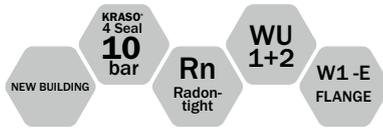
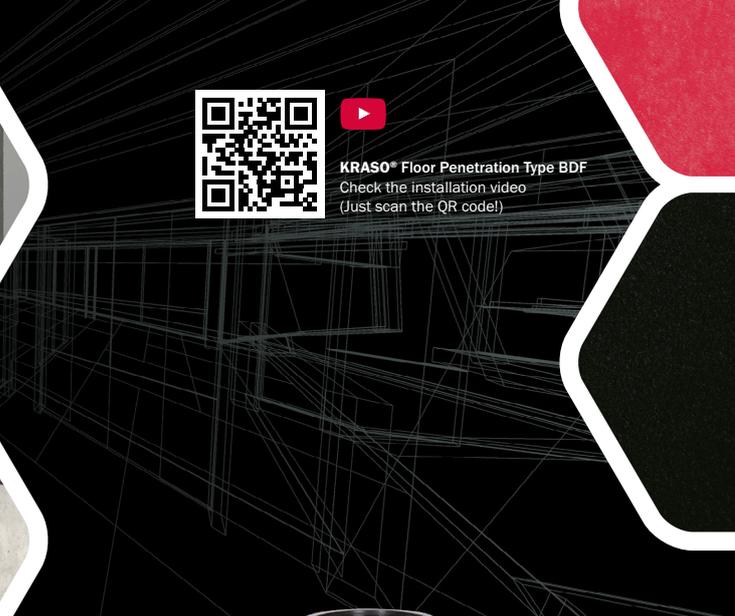
|   |     |
|---|-----|
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## + Wall Collars

|  |    |
|--|----|
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**KRASO® Floor Penetration Type BDF**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Floor Penetration Type BDF

### Simple, tight and approved

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Made of dimensionally stable and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + Also available for KG 2000: polypropylene (PP-MD), 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 building period protective cover
- + Also available as thermally insulated floor penetration!
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E



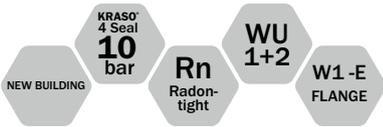
### KRASO® Floor Penetration Type BDF **LG 1**

for connection to KG/HT pipes, 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

| Item                                    | KRASO® Type BDF • KRASO® Type BDF with foil flange |      |      |       |       |       |       |       |
|---|--|------|------|-------|-------|-------|-------|-------|
|   | 110  | 125  | 160  | 200   | 250   | 315   | 400   | 500   |
| 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>                     | 22 €   |      |      |       |       |       |       |       |

**Scope of supply:** KRASO® Type BDF or KRASO® Type BDF with foil flange, KRASO® Cover as building period protective cover

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



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

for the connection to system KG 2000 lines, 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

| Item  | KRASO® Type BDF for KG 2000 • KRASO® Type BDF for KG 2000 with foil flange |      |       |       |       |       |       |       |
|---|--|------|-------|-------|-------|-------|-------|-------|
|   | 110  | 125  | 160   | 200   | 250   | 315   | 400   | 500   |
| Diameter DN   | 110  | 125  | 160   | 200   | 250   | 315   | 400   | 500   |
| Delivery length (in cm)                             | 50   |      |       |       |       |       |       |       |
| <b>KRASO® Type BDF for KG 2000</b>                  | 50 €   | 56 € | 74 €  | 107 € | 255 € | 343 € | 448 € | 612 € |
| <b>KRASO® Type BDF for KG 2000 with foil flange</b> | 84 €   | 92 € | 109 € | 156 € | 309 € | 398 € | 596 € | 794 € |
| <b>KRASO® PU 50</b>                                 | 22 €   |      |       |       |       |       |       |       |

**Scope of supply:** KRASO® Type BDF for KG 2000 or KRASO® Type BDF for KG 2000 with foil flange, KRASO® Cover as building period protective cover

Further diameters and lengths from 50 cm on request!



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

for connection to KG/HT pipes or KG 2000 lines, with thermally insulated body surrounding approx. 5 cm, **KRASO® Cover** as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2

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

**Scope of supply:** KRASO® Type BDF - thermally insulated -, KRASO® Cover as building period protective cover

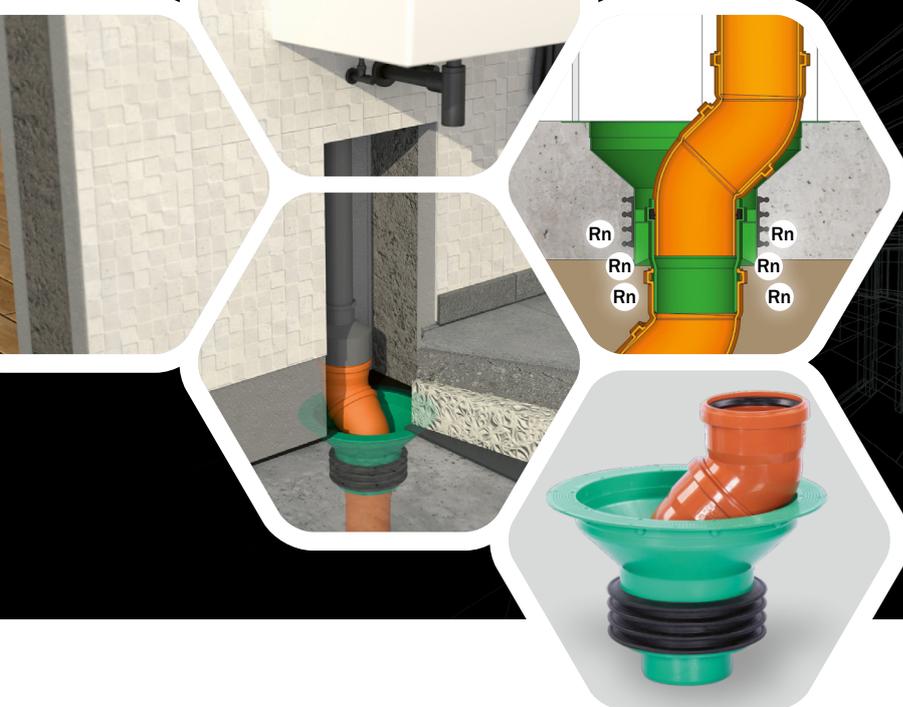
Further diameters and lengths from 50 cm on request!



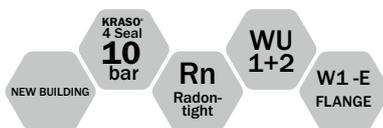
### Rodding eye for KRASO® Type BDF **LG 1**

15 x 15 cm - screwable -

|                                 |       |
|---------------------------------|-------|
| Diameter DN                     | 110   |
| Rodding eye for KRASO® Type BDF | 292 € |



**KRASO® Universal Funnel**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Universal Funnel

### The floor penetration for more flexibility

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Break-resistant solid wall material, KG 2000 system compatible
- + Displaced fall pipes can be corrected easily up to 45 degrees!
- + Integrated plug-in sleeve with diameter DN 110 and threefold reinforced lip ring
- + Surrounding connection flange with textured surface
- + Optionally available: screwable stainless steel clamping flange for fixed-loose flange construction
- + Easy installation: ready-to-use, lugs, including walkable building period protective cover
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E

#### KRASO® Universal Funnel **LG 1**

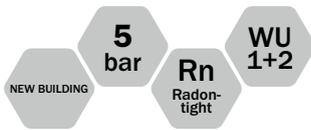
for the installation in waterproof concrete base plates for the connection of displaced KG/HT pipes and for the connection to KG/KG 2000 lines, with one-sided spigot, walkable building period protective cover. Optionally available: screwable **KRASO® Stainless Steel Clamping Flange** for the connection to non-adhesive foils | **DafStB waterproof concrete guideline: stress class 1 + 2**



| Item  | KRASO® Universal Funnel |
|---|-------------------------|
| Pipe: Diameter DN                             | 110                     |
| <b>KRASO® Universal Funnel</b>                | <b>53 €</b>             |
| <b>KRASO® Stainless Steel Clamping Flange</b> | <b>70 €</b>             |

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

Tool-free assembly!  
Including building period protective cover

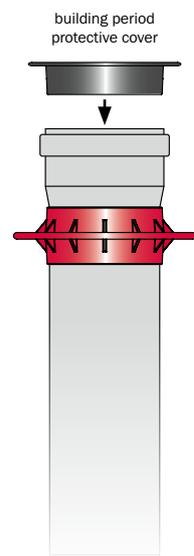


## KRASO® Wall Collar

### 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!
- + IAF-tested: radon-tight!
- + Resistant to methane gas!
- + For all smooth pipes in DN 110, DN 125, DN 160 and DN 200!
- + Tool-free assembly – simple and fast:  
simply pull the **KRASO® Wall Collar** over the pipe
- + Including **KRASO® Cover** as building period protective cover!
- + DafStB waterproof concrete guideline: stress class 1 + 2



### 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

| Item                       | KRASO® Wall Collar |      |      |      |
|----------------------------|--------------------|------|------|------|
| Diameter pipe: Diameter DN | 110                | 125  | 160  | 200  |
| KRASO® Wall Collar         | 15 €               | 17 € | 22 € | 27 € |

Scope of supply: KRASO® Wall Collar, KRASO® Cover as building period protective cover

Further special designs available on request!



# KRASO®

## Wall Collar DKS Universal

### Simple, tight, universally usable!



- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Stepless onion ring technology! Scope of application 10 - 50 mm or 50 - 90 mm! For all smooth cables and pipes
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101!
- + Resistant to methane gas!
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps
- + DafStB waterproof concrete guideline: stress class 1 + 2

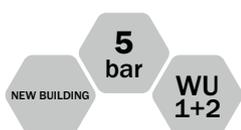
### KRASO® Wall Collar DKS Universal **LG 1**

| Item                                    | KRASO® Wall Collar DKS Universal 10 - 50 | KRASO® Wall Collar DKS Universal 50 - 90 |
|---|--|--|
| Scope of application in mm              | 10 - 50                                  | 50 - 90                                  |
| <b>KRASO® Wall Collar DKS Universal</b> | <b>21 €</b>                              | <b>24 €</b>                              |

**Scope of supply:** KRASO® Wall Collar DKS Universal with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

**Further special designs available on request!**

PIPE PENETRATIONS



# KRASO®

## Wall Collar DKS

### Simple and fast sealing!



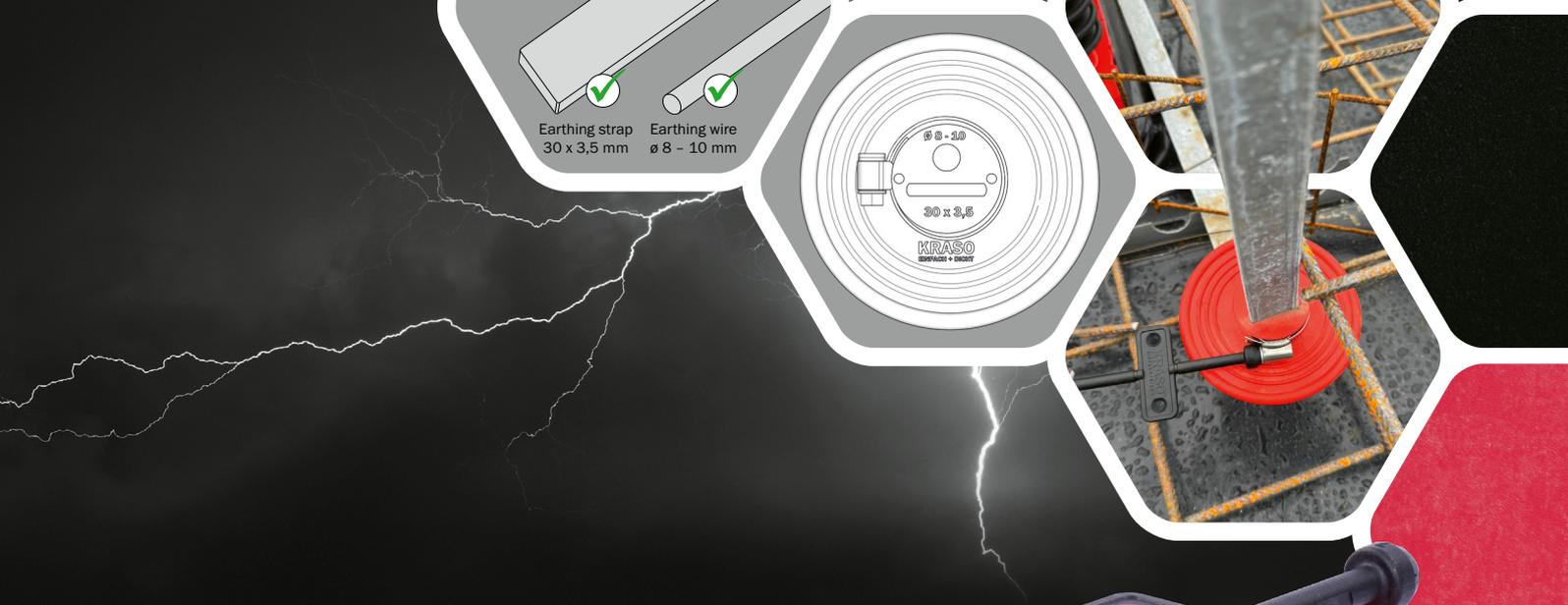
- + The fast, simple and tight solution for sealing pipes in waterproof concrete structures – base plate and wall!
- + Water pressure tight connection of pipelines: MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101!
- + Resistant to methane gas!
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Wall Collar DKS **LG 1**

| Item                          | KRASO® Wall Collar DKS |             |             |             |             |             |             |             |
|-------------------------------|------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Pipe: Diameter DN             | 25                     | 32          | 40          | 50          | 63          | 75          | 80          | 90          |
| <b>KRASO® Wall Collar DKS</b> | <b>16 €</b>            | <b>16 €</b> | <b>16 €</b> | <b>16 €</b> | <b>19 €</b> | <b>19 €</b> | <b>19 €</b> | <b>19 €</b> |

**Scope of supply:** KRASO® Wall Collar DKS with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

**Further special designs available on request!**



PIPE PENETRATIONS

## KRASO® Wall Collar Lightning Protection Duo

### Double the benefit, half the storage!

- + For the water pressure tight integration of earthing cables with factory-sealed openings: square earthing strap (30 x 3.5 mm) and earthing wire (ø 8 - 10 mm)
- + With **Torque Control Wrench KRASO® DKS**: for safe and easy tightening of straps.
- + MPA-tested up to 5 bar!
- + Resistant to methane gas!
- + Radon-tight – according to FHRK leaflet MB 101!
- + DafStB waterproof concrete guideline: stress class 1 + 2



### KRASO® Wall Collar Lightning Protection Duo **LG 1**

| Item  | KRASO® Wall Collar Lightning Protection Duo |
|---|---|
| KRASO® Wall Collar Lightning Protection Duo | 22 €  |

**Scope of supply:** KRASO® Wall Collar Lightning Protection Duo with Torque Control Wrench KRASO® DKS, 2 stainless steel straps

**Further special designs available on request!**



**KRASO® Wall Penetration Type B**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Wall Penetration Type B

The proven wall penetration made of solid wall material

- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + In accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Also available for KG 2000: 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!
- + Also available as thermally insulated wall penetration!
- + DafStB waterproof concrete guideline: stress class 1 + 2

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

in accordance with DIN EN 1401, for connection to KG/HT pipes on both sides, with water pressure tight surrounding **KRASO® 4 Seal**  
| DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                      | KRASO® Type B                                |             |             |             |              |                  |                  |                  |
|---|--|-------------|-------------|-------------|--------------|------------------|------------------|------------------|
|   | 110  | 125         | 160         | 200         | 250          | 315 <sup>1</sup> | 400 <sup>1</sup> | 500 <sup>1</sup> |
| 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</b>                      | <b>52 €</b>                                  | <b>62 €</b> | <b>69 €</b> | <b>97 €</b> | <b>239 €</b> | <b>395 €</b>     | <b>473 €</b>     | <b>571 €</b>     |
| Surcharge: special dimensions up to 50 cm | <b>21 €</b>                                  |             |             |             | <b>34 €</b>  |                  |                  |                  |

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

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

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



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

in accordance with DIN EN 14758, for installation in waterproof concrete walls for connection of KG 2000 pipes, 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**

| Item                                      | KRASO® Type B for KG 2000                    |             |              |              |              |                  |                  |                  |
|---|--|-------------|--------------|--------------|--------------|------------------|------------------|------------------|
| 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 for KG 2000</b>          | <b>72 €</b>                                  | <b>81 €</b> | <b>111 €</b> | <b>169 €</b> | <b>287 €</b> | <b>476 €</b>     | <b>617 €</b>     | <b>1,067 €</b>   |
| Surcharge: special dimensions up to 50 cm | <b>21 €</b>                                  |             |              |              |              | <b>34 €</b>      |                  |                  |

<sup>1</sup> Only usable as push-through sleeve because the plug-in length according to 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 for KG 2000, 2 KRASO® Covers 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, thermally welded **KRASO® 4 Seal** on both sides, 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**

| 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> | <b>249 €</b>                                 | <b>275 €</b> | <b>302 €</b> | <b>352 €</b> | <b>533 €</b> | <b>799 €</b>     | <b>925 €</b>     | <b>1,646 €</b>   |

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



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

grey iron waste water pipe according to 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** and styrofoam recess core on both sides | **DafStB waterproof concrete guideline: stress class 1 + 2**

| 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>                    | <b>84 €</b>     | <b>100 €</b> | <b>126 €</b> | <b>227 €</b> | <b>332 €</b> |
| Surcharge: per each additional 10 cm      | <b>12 €</b>     | <b>13 €</b>  | <b>16 €</b>  | <b>38 €</b>  | <b>44 €</b>  |

**Scope of supply:** KRASO® Type SML incl. 2 styrofoam recess cores at the sides

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



NEW BUILDING

## KRASO® Magnetic Cover for pipe penetrations DN 110

### The magnetic interface for precast walls

Waterproof concrete structures in pressurised water pose particular challenges. In addition to in-situ concrete construction, building with element walls has also become established as a waterproof concrete construction method. Consistent quality and rapid construction progress are just two of the many advantages here.

Whether in-situ concrete or precast element construction, all places where pipes or cables pass through the wall pose a challenge. Here, precautions must be taken against water penetration by using pipe penetrations with waterproof sealing. These pipe penetrations are currently glued manually to the formwork tables in precast element factories using installation covers. This type of work is labour-intensive and involves a risk of incorrect positioning.

The new **KRASO® Magnetic Cover** with magnetic interface for **KRASO® Pipe Penetrations** provides a solution. Using formwork robots, the magnet can also be positioned automatically with millimetre precision for pipe penetrations, and the pipe penetration can be clicked onto the formwork of the outer shell via the cover with magnetic interface. When the element wall is turned, the magnet remains on the formwork and the magnetic cover remains in the pipe penetration as protection.

#### KRASO® Magnetic Cover - advantages

- + Especially for precast element factories!
- + **KRASO® Magnetic Cover** available for **KAISER** and **PRIMO** magnetic systems!
- + Suitable for all pipe penetrations in DN 110
- + Enables precise, machine-controlled positioning on the formwork table
- + Eliminates labour-intensive manual positioning and helps to avoid errors
- + Once completed, the **KRASO® Magnetic Cover** remains in the pipe penetration as protection



KRASO® Magnetic Cover  
System KAISER

KRASO® Magnetic Cover  
System PRIMO



KRASO® Magnetic Cover -  
System KAISER



KRASO® Magnetic Cover -  
System PRIMO

## KRASO® Pipe Penetrations



KRASO®  
Wall Penetration  
Type B



KRASO®  
Wall Penetration  
Type FR



KRASO®  
Wall Penetration  
Type DFW 4



KRASO®  
Wall Penetration  
Type DFW 6



KRASO®  
Wall Penetration  
Type DFW 8



KRASO®  
Wall Penetration  
Type B  
for KG 2000



KRASO®  
Wall Penetration  
Type FR  
for KG 2000



KRASO®  
Wall Penetration  
Type DFW 4  
for KG 2000



KRASO®  
Wall Penetration  
Type DFW 6  
for KG 2000



KRASO®  
Wall Penetration  
Type DFW 8  
for KG 2000

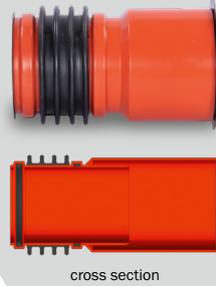
We are happy to assist you  
with advice and possible applications for the  
**KRASO® Magnetic Cover!**

(s. page 178)





**KRASO® Wall Penetration Type FR**  
Check the installation video  
(Just scan the QR code!)



cross section



## KRASO® Wall Penetration Type FR

### Always the right flow direction

- + One flow direction!
- + Flexible yet water tight connection to the pipe system: stresses caused by settling of KG pipes are minimised!
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + In accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Also available for KG 2000: polypropylene (PP), mineral-filled, smooth walls, long-lasting
- + DafStB waterproof concrete guideline: stress class 1 + 2

#### 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 | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item                                      | KRASO® Type FR                 |             |             |
|---|--------------------------------|-------------|-------------|
|   | 110                            | 125         | 160         |
| Diameter DN                               | 110                            | 125         | 160         |
| Available standard wall thicknesses in cm | 20 <sup>1</sup> · 24 · 25 · 30 |             |             |
| <b>KRASO® Type FR</b>                     | <b>55 €</b>                    | <b>64 €</b> | <b>73 €</b> |

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

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



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

in accordance with DIN EN 14758, for installation in waterproof concrete walls for 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**

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

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



## 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 KG/HT pipes to be pushed through (Uni D), with water pressure tight surrounding **KRASO® 4 Seal**. With markings for a simple shortening on-site to standard wall thicknesses | **DafStB waterproof concrete guideline: stress class 1 + 2**

| 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><br><b>KRASO® Type Universal D</b> | <b>52 €</b>                                       | <b>62 €</b> | <b>69 €</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 for KG 2000 **LG 1**

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

| Item   | KRASO® Type Universal B for KG 2000 • KRASO® Type Universal D for 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 for KG 2000</b><br><b>KRASO® Type Universal D for KG 2000</b> | <b>88 €</b>   | <b>104 €</b> | <b>138 €</b> |

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

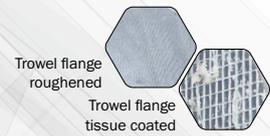
**Further diameters and wall thicknesses available on request!**



## NBR seal **LG 1**

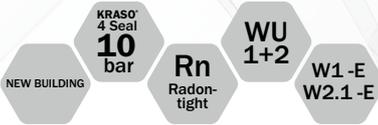
oil-resistant lip seal rings for system KG and KG 2000

| Item             | NBR seal |        |        |        |         |         |       |       |
|------------------|----------|--------|--------|--------|---------|---------|-------|-------|
| Diameter DN      | 110      | 125    | 160    | 200    | 250     | 315     | 400   | 500   |
| NBR seal KG      | 1.85 €   | 2.50 € | 3.20 € | 5.10 € | 12.10 € | 16.70 € | 31 €  | 79 €  |
| NBR seal KG 2000 | 5.35 €   | 12 €   | 24 €   | 37 €   | 79 €    | 130 €   | 155 € | 195 € |



Trowel flange roughened

Trowel flange tissue coated



## KRASO® Wall Penetration Type B/SF 5

### Secure connection to bitumen and reactive sealings

- + Dimensionally and pressure-resistant solid wall material: low abrasion, easy installation at low temperatures
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Surrounding approx. 5 cm trowel flange on one side, for secure connection of bitumen thick coating such as KMB or reactive sealings: roughened or tissue coated
- + Also available: trowel flange made of PP with dovetail groove as **KRASO® Type B/SF 5 for KG 2000** for the secure gripping of bitumen thick coating
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

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

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) and reactive sealings, surrounding approx. 5 cm, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

| 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® Type B/SF 5 - R</b>             | <b>78 €</b>                                  | <b>94 €</b> | <b>107 €</b> | <b>137 €</b> | <b>306 €</b> | <b>488 €</b> |
| <b>KRASO® Type B/SF 5 - G</b>             | <b>86 €</b>                                  | <b>98 €</b> | <b>111 €</b> | <b>143 €</b> | <b>311 €</b> | <b>497 €</b> |

**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!

Dovetail groove - for the secure gripping of bitumen thick coating and reactive sealings with **KRASO® Type B/SF 5 for KG 2000**



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

for installation in waterproof concrete walls for the connection to KG 2000 pipes on both sides, with trowel flange on one side with dovetail groove for the secure connection of bitumen thick coating and reactive sealings, formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

| Item                                      | KRASO® Type B/SF 5 for 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® Type B/SF 5 for KG 2000</b>     | <b>146 €</b>                                 | <b>162 €</b> | <b>186 €</b> | <b>246 €</b> | <b>499 €</b> | <b>747 €</b> |

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

Further diameters and wall thicknesses available on request!



suitable for  
KRASO® Magnetic Cover

**KRASO® Wall Penetration Type DFW 4:**  
KRASO® 2 Seal on both sides  
- MPA-tested up to 3.5 bar!

**KRASO® Wall Penetration Type DFW 6:**  
KRASO® 2 Seal on one side,  
central KRASO® 4 Seal  
- MPA-tested up to 10 bar!

**KRASO® Wall Penetration Type DFW 8:**  
KRASO® 2 Seal on both sides,  
central KRASO® 4 Seal  
- MPA-tested up to 10 bar!

NEW BUILDING

KRASO® Seal  
**3.5 bar**

KRASO® Seal  
**10 bar**

Rn  
Radon-tight

WU  
1+2

# KRASO® Wall Penetration Type DFW

## Easy and secure sealing in precast walls

- + For the installation in triple wall elements: stop occurring water at the outer shell!
- + IAF-tested: radon-tight!
- + Pipe and pipe-material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)
- + Suitable for **KRASO® Magnetic Cover**
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Wall Penetration Type DFW - triple wall - especially for precast elements **LG 1**

in accordance with DIN EN 1401, for the installation in triple walls, for connection to KG/HT pipes on both sides, with formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

| 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 is not suitable for double-sided usage according to DIN EN 1401-1

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

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



### KRASO® Wall Penetration Type DFW for KG 2000 - triple wall - especially for precast elements **LG 1**

in accordance with DIN EN 14758, for the installation in triple walls, for the connection to KG 2000 pipes on both sides, with formed plug-in sleeve on both sides, 2 **KRASO® Covers** as an installation aid | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item                                      | KRASO® Type DFW for 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 |       |       |       |       |                    |
| KRASO® Type DFW 4 for KG 2000             | 95 €   | 104 € | 147 € | 216 € | 368 € | 609 €              |
| KRASO® Type DFW 6 for KG 2000             | 104 €  | 116 € | 161 € | 239 € | 409 € | 673 €              |
| KRASO® Type DFW 8 for KG 2000             | 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 according to 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 for KG 2000, KRASO® Type DFW 6 for KG 2000 or KRASO® Type DFW 8 for KG 2000, 2 **KRASO® Covers** as an installation aid

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



## KRASO® Casing Type FE For all diameters!

- + Thick-walled true diameter plastic casing for concreting
- + **KRASO® 4 Seal** – MPA-tested up to 10 bar! Gas- and odour-tight – high-quality in terms of TA-Air!
- + IAF-tested: radon-tight!
- + Certified with the quality seal of the FHRK e. V.
- + Material and processing: weatherproof, impact-resistant plastic, **KRASO® 4 Seal** joined monolithically to the plastic pipe by vulcanization
- + Every diameter and every wall thickness available at short notice!  
If necessary, the size can be adapted individually on the construction site!
- + Low weight: easy handling, simple installation, low transport costs!
- + Including installation covers! No pre-treatment required!
- + DafStB waterproof concrete guideline: stress class 1 + 2



KRASO® Casing Type FE/MI  
with fixed claw

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

recess for retrofit installation of cables or pipes using a sealing insert (not included in the scope of supply) • plastic - true diameter casing with reinforced inner core, with eyelets, shear key and enclosed fixed claw as an installation aid, ID = InternalDiameter true diameter casing | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                      | KRASO® Casing Type FE                        |      |      |      |      |       |       |       | KRASO® Casing Type FE/MI |       |       |       |       |       |         |         |
|---|--|------|------|------|------|-------|-------|-------|--------------------------|-------|-------|-------|-------|-------|---------|---------|
|   | 80   | 100  | 125  | 150  | 200  | 250   | 300   | 350   | 400                      | 450   | 500   | 600   | 700   | 800   | 900     | 1000    |
| InternalDiameter in mm                    | 80   | 100  | 125  | 150  | 200  | 250   | 300   | 350   | 400                      | 450   | 500   | 600   | 700   | 800   | 900     | 1000    |
| Available standard wall thicknesses in cm | 20 · 24 · 25 · 30 · 35 · 36.5 · 40 · 45 · 50 |      |      |      |      |       |       |       |                          |       |       |       |       |       |         |         |
|   | 40 €   | 41 € | 43 € | 47 € | 69 € | 80 €  | 86 €  | 231 € | 253 €                    | 272 € | 288 € | 445 € | 589 € | 694 € | 877 €   | 927 €   |
| Available standard wall thicknesses in cm | 60 · 70 · 80 · 90 · 100                      |      |      |      |      |       |       |       |                          |       |       |       |       |       |         |         |
|   | 55 €   | 56 € | 63 € | 67 € | 94 € | 125 € | 157 € | 271 € | 309 €                    | 344 € | 364 € | 529 € | 709 € | 846 € | 1,081 € | 1,167 € |

Scope of supply: KRASO® Casing Type FE, 2 KRASO® Covers as an installation aid • KRASO® Casing Type FE/MI, fixed claw as an installation aid  
Further diameters and wall thicknesses available on request!



# KRASO® Fibre Cement Casing

## Water pressure tight penetration with homogeneous connection to the concrete

- + Casing made of fibre cement as a recess in waterproof concrete walls ("white tank")
- + For concreting: the surrounding external profile ensures a homogeneous and water pressure tight connection to the concrete
- + MPA-tested up to 5 bar!
- + Radon-tight – according to FHRK leaflet MB 101
- + Corresponds to the expansion range ("expansion coefficient") of waterproof concrete
- + Optionally available: **KRASO® Installation/Formwork Aid**
- + Fire protection class A1 according to DIN EN 13501-1
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2



### KRASO® Fibre Cement Casing **LG 6**

fibre cement casing for the installation in waterproof concrete walls for installation of pipes or cables using sealing inserts (not included in the scope of supply) | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                       | KRASO® Fibre Cement Casing |        |        |        |        |         |         |         |         |         |         |         |          |          |
|--|----------------------------|--------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|----------|----------|
|  | 80                         | 100    | 125    | 150    | 200    | 250     | 300     | 350     | 400     | 450     | 500     | 600     | 700      | 800      |
| Internal Diameter in mm                    | 80                         | 100    | 125    | 150    | 200    | 250     | 300     | 350     | 400     | 450     | 500     | 600     | 700      | 800      |
| Available standard wall thicknesses in cm  |                            |        |        |        |        |         |         |         |         |         |         |         |          |          |
| 20   | 37 €                       | 39 €   | 45 €   | 50 €   | 60 €   | 78 €    | 82 €    | 100 €   | 138 €   | 157 €   | 187 €   | 213 €   | 284 €    | 327 €    |
| 24   | 43 €                       | 45 €   | 52 €   | 56 €   | 69 €   | 91 €    | 97 €    | 117 €   | 162 €   | 185 €   | 219 €   | 250 €   | 337 €    | 388 €    |
| 25   | 44 €                       | 46 €   | 54 €   | 58 €   | 71 €   | 93 €    | 99 €    | 122 €   | 168 €   | 192 €   | 227 €   | 259 €   | 350 €    | 403 €    |
| 30   | 50 €                       | 52 €   | 58 €   | 63 €   | 76 €   | 97 €    | 117 €   | 144 €   | 199 €   | 227 €   | 269 €   | 306 €   | 416 €    | 480 €    |
| 35   | 57 €                       | 59 €   | 66 €   | 71 €   | 86 €   | 106 €   | 130 €   | 166 €   | 229 €   | 262 €   | 310 €   | 352 €   | 482 €    | 556 €    |
| 36.5                                       | 62 €                       | 65 €   | 76 €   | 82 €   | 93 €   | 112 €   | 140 €   | 173 €   | 238 €   | 272 €   | 322 €   | 366 €   | 502 €    | 579 €    |
| 40   | 64 €                       | 67 €   | 79 €   | 86 €   | 95 €   | 117 €   | 145 €   | 189 €   | 259 €   | 296 €   | 350 €   | 398 €   | 548 €    | 633 €    |
| 50   | 74 €                       | 78 €   | 93 €   | 104 €  | 114 €  | 121 €   | 160 €   | 233 €   | 320 €   | 366 €   | 433 €   | 491 €   | 649 €    | 786 €    |
| 60   | 83 €                       | 86 €   | 102 €  | 112 €  | 121 €  | 143 €   | 177 €   | 277 €   | 381 €   | 436 €   | 515 €   | 584 €   | 811 €    | 939 €    |
| 80   | 103 €                      | 108 €  | 131 €  | 147 €  | 151 €  | 173 €   | 199 €   | 352 €   | 484 €   | 549 €   | 654 €   | 742 €   | 1,075 €  | 1,245 €  |
| 100  | 124 €                      | 130 €  | 172 €  | 194 €  | 203 €  | 246 €   | 311 €   | 440 €   | 605 €   | 692 €   | 817 €   | 927 €   | 1,338 €  | 1,551 €  |
| 120  | 149 €                      | 156 €  | 206 €  | 233 €  | 244 €  | 295 €   | 373 €   | 528 €   | 726 €   | 830 €   | 980 €   | 1,112 € | 1,606 €  | 1,861 €  |
| optional: KRASO® Installation/Formwork aid | 4.10 €                     | 4.90 € | 6.10 € | 7.50 € | 9.80 € | 15.70 € | 19.40 € | 26.20 € | 33.40 € | 42.30 € | 52.60 € | 75.80 € | 102.40 € | 133.80 € |

Further diameters and wall thicknesses available on request!



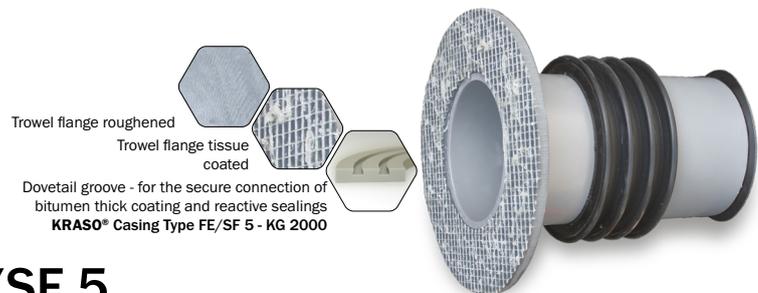
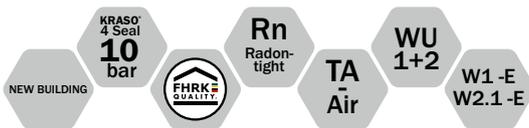
## KRASO® Casing Type DFW/FE - triple wall - especially for precast elements **LG 1**

for the installation into triple walls, thick-walled plastic casing true diameter for concreting, as a recess for retrofit installation of cables or pipes using a sealing insert (not included in the scope of supply), with water pressure tight surrounding **KRASO® 2 Seal** on both sides (**KRASO® Type DFW/FE 4**), **KRASO® 2 Seal** on one side and water pressure tight surrounding **KRASO® 4 Seal** in the middle (**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

| Item                                      | KRASO® Type DFW/FE                           |      |      |       |       |       |
|---|--|------|------|-------|-------|-------|
| InternalDiameter in mm                    | 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 € |

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

Further diameters and wall thicknesses available on request!



## KRASO® Casing Type FE/SF 5

### Thick-walled plastic casing - true diameter: secure connection of bitumen thick coating/reactive sealings

- + Thick-walled true diameter plastic casing for concreting
- + As a recess for retrofit installation of cables or pipes using a sealing insert
- + Approx. 5 cm surrounding trowel flange on one side for a secure connection of bitumen thick coating and reactive sealings: roughened or tissue coated.
- + **KRASO® 4 Seal** - MPA-tested up to 10 bar! IAF tested: radon-tight! Gas- and odour-tight - high-quality in terms of TA-Air!
- + Certified with the quality seal of the FHRK e. V.
- + Also available: **KRASO® Casing Type FE/SF 5** made of KG 2000 with trowel flange made of PP with dovetail groove for the secure connection of bitumen thick coating and reactive sealings
- + DafStB waterproof concrete guideline: stress class 1 + 2, DIN 18533 W1 -E and W2.1 -E

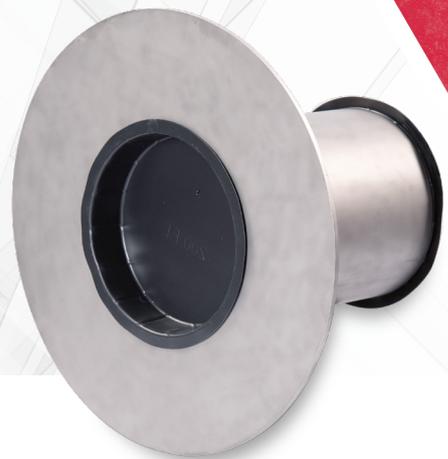
## KRASO® Casing Type FE/SF 5 **LG 1**

for concreting, with trowel flange on one side, roughened (**KRASO® Type FE/SF 5 - R**) or tissue coated (**KRASO® Type FE/SF 5 - G**), surrounding approx. 5 cm, 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

| Item                                      | KRASO® Type FE/SF 5                          |      |      |       |       |       |
|---|--|------|------|-------|-------|-------|
| InternalDiameter in mm                    | 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 5 - 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® Casings with bonding flange

### Simple integration into the sealing of larger areas

- + True diameter casing with surrounding bonding flange according to DIN 18533 for a simple and fast integration into the sealing of larger areas (“black tank”)
- + As a recess for the retrofit installation of cables or pipes using a 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 - stainless steel/true diameter casing/bonding flange **LG 1**

stainless steel true diameter casing with stainless steel bonding flange, surrounding approx. 12 cm, according to DIN 18533, for concreting, made of non-corrosive stainless steel V2A, for the installation of cables or pipes using a sealing insert (not included in the scope of supply), with 2 **KRASO® Covers** as an installation aid. ID = InternalDiameter true diameter casing | **DIN 18533 W1 -E and W2.1 -E**

| Item                                      | KRASO® Casing E/FE/KF |              |              |              |              |              |              |
|---|-----------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| InternalDiameter in mm                    | 80                    | 100          | 125          | 150          | 200          | 250          | 300          |
| Available standard wall thicknesses in cm | 20 • 24 • 25 • 30     |              |              |              |              |              |              |
| Diameter bonding flange                   | surrounding 120 mm    |              |              |              |              |              |              |
| <b>KRASO® Casing E/FE/KF</b>              | <b>153 €</b>          | <b>198 €</b> | <b>218 €</b> | <b>251 €</b> | <b>288 €</b> | <b>386 €</b> | <b>454 €</b> |
| Surcharge: per each additional 10 cm      | 22 €                  | 28 €         | 32 €         | 36 €         | 42 €         | 55 €         | 64 €         |

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

**Further diameters and wall thicknesses available on request! Also available in V4A at an additional charge!**

#### KRASO® Casing K/FE/KF - electrogalvanised - plastic/true diameter casing/bonding flange **LG 1**

thick-walled true diameter plastic casing with electrogalvanised bonding flange, surrounding approx. 12 cm, according to DIN 18533, for concreting, for the installation of cables or pipes using a sealing insert (not included in the scope of supply), 2 **KRASO® Covers** as an installation aid ID = InternalDiameter true diameter casing | **DIN 18533 W1 -E and W2.1 -E**



| Item   | KRASO® Casing K/FE/KF - electrogalvanised |              |              |              |              |              |              |
|--|---|--------------|--------------|--------------|--------------|--------------|--------------|
| InternalDiameter in mm                             | 80  | 100          | 125          | 150          | 200          | 250          | 300          |
| Available standard wall thicknesses in cm          | 20 • 24 • 25 • 30                         |              |              |              |              |              |              |
| Diameter bonding flange                            | surrounding 120 mm                        |              |              |              |              |              |              |
| <b>KRASO® Casing K/FE/KF - electrogalvanised -</b> | <b>115 €</b>                              | <b>148 €</b> | <b>164 €</b> | <b>189 €</b> | <b>216 €</b> | <b>290 €</b> | <b>345 €</b> |
| Surcharge: per each additional 10 cm               | 1.30 €                                    | 1.40 €       | 2.10 €       | 2.30 €       | 4.70 €       | 8.20 €       | 14.10 €      |

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

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



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

stainless steel casing for concreting, as a recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, with water pressure tight and 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**

| Item                                      | KRASO® Type E/FE  |              |              |              |              |              |              |
|---|-------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| InternalDiameter in mm                    | 80                | 100          | 125          | 150          | 200          | 250          | 300          |
| Available standard wall thicknesses in cm | 20 • 24 • 25 • 30 |              |              |              |              |              |              |
| <b>KRASO® Type E/FE</b>                   | <b>146 €</b>      | <b>189 €</b> | <b>208 €</b> | <b>240 €</b> | <b>274 €</b> | <b>367 €</b> | <b>437 €</b> |
| Surcharge: per each additional 10 cm      | 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 at an additional charge!**



## VA - tubular sleeve **LG 1**

stainless steel tubular sleeve for concreting, as non-water pressure tight recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, ID = InternalDiameter true diameter

| Item                                      | VA - tubular sleeve |             |             |             |              |              |              |
|---|---------------------|-------------|-------------|-------------|--------------|--------------|--------------|
| InternalDiameter in mm                    | 80                  | 100         | 125         | 150         | 200          | 250          | 300          |
| Available standard wall thicknesses in cm | 20 • 24 • 25 • 30   |             |             |             |              |              |              |
| <b>VA - tubular sleeve</b>                | <b>61 €</b>         | <b>78 €</b> | <b>88 €</b> | <b>99 €</b> | <b>114 €</b> | <b>151 €</b> | <b>180 €</b> |
| Surcharge: per each additional 10 cm      | 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 at an additional charge!**



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

stainless steel casing for concreting with middle flange, surrounding approx. 10 cm, as a recess for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), made of non-corrosive stainless steel V2A, ID = InternalDiameter true diameter casing

| Item                                      | KRASO® Type E/FE/M |              |              |              |              |              |              |
|---|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|
| InternalDiameter in mm                    | 80                 | 100          | 125          | 150          | 200          | 250          | 300          |
| Available standard wall thicknesses in cm | 20 • 24 • 25 • 30  |              |              |              |              |              |              |
| <b>KRASO® Type E/FE/M</b>                 | <b>146 €</b>       | <b>189 €</b> | <b>208 €</b> | <b>240 €</b> | <b>274 €</b> | <b>367 €</b> | <b>437 €</b> |
| Surcharge: per each additional 10 cm      | 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 at an additional charge!**



### KRASO® Slip-on Sleeve **LG 1**

in accordance with 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

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

Also available as double sleeve with internal stop on request!

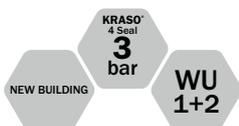


### KRASO® Slip-on Sleeve for KG 2000 **LG 1**

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

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

Also available as double sleeve with internal stop on request!



### KRASO® 15° | 30° | 45° Bend **LG 1**

in accordance with 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

| 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          |
| <b>KRASO® 15°   30°   45° Bend</b> | <b>29 €</b>                 | <b>34 €</b>      | <b>39 €</b>      | <b>73 €</b>      | <b>124 €</b> | <b>192 €</b> | <b>330 €</b> | <b>721 €</b> |

<sup>1</sup> For technical production reasons partly **KRASO® 3 Seal**



### KRASO® 15° | 30° | 45° Bend for KG 2000 **LG 1**

in accordance with DIN EN 14758, for installation in waterproof concrete walls for the connection to KG 2000 pipes, 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

| Item   | KRASO® 15°   30°   45° Bend for 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            |
| <b>KRASO® 15°   30°   45° Bend for KG 2000</b> | <b>44 €</b>                             | <b>55 €</b>      | <b>75 €</b>      | <b>111 €</b>     | <b>255 €</b> | <b>409 €</b>     | <b>589 €</b>     | <b>1,148 €</b> |

<sup>1</sup> For technical production reasons partly **KRASO® 3 Seal**

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



**KRASO® Tie Point DWS -System**  
Check the installation video  
(Just scan the QR code!)



**10 bar**  
NEW BUILDING

**F 180**  
Fireproof

**WU 1+2**

## KRASO® Tie Point DWS - System

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

- + Water pressure tight tie point as spacer for the formwork of waterproof concrete walls
- + Delivery ready-to-use according to wall thickness - no assembly necessary on the construction site!
- + Simple installation - no time-consuming adhesion of blanking plugs and expensive reworking!
- + 10 bar water pressure tightness internally and externally due to vulcanised locking disc, sealing and blanking plugs for simple locking.
- + Fireproof according to F 180!
- + DafStB waterproof concrete guideline: stress class 1 + 2

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

| DafStB waterproof concrete guideline: stress class 1 + 2

| Item                | KRASO® DWS - System |        |        |        |        |        |        |        |        |        |        |        |
|---------------------|---------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
|                     | 15                  | 17.5   | 20     | 24     | 25     | 30     | 35     | 36.5   | 40     | 45     | 50     | 60     |
| KRASO® DWS - System | 4.30 €              | 4.40 € | 4.40 € | 4.50 € | 4.50 € | 4.60 € | 4.70 € | 4.70 € | 4.80 € | 4.90 € | 5.00 € | 5.30 € |

**Packing unit:**  
50 pcs. - red KRASO® Distance Pipe 22/26 with KRASO® Locking Disc and assembled caps  
50 pcs. - KRASO® Sealing Plugs  
100 pcs. - blanking plugs

Any wall thickness available at short term! Also available for system tie point 26/30!

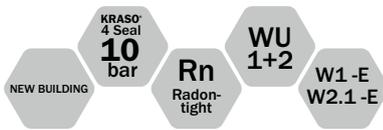
### KRASO® DWS - Accessories **LG 1**



| Item                     | Insertion Tool | Blanking Plugs | KRASO® Sealing Plugs |
|--------------------------|----------------|----------------|----------------------|
| Packing Unit             | 1 pc.          | 100 pcs.       | 50 pcs.              |
| KRASO® DWS - Accessories | 12 €           | 10 €           | 9 €                  |



**KRASO® Floor Drain**  
Check the installation video  
(Just scan the QR code!)



## KRASO® Drains for interior and exterior use Inside and outside – tight and dry

- + For interior areas, basements, yards and parking levels:  
**KRASO® Drains** for a reliable and water pressure tight drainage of pressing water!
- + IAF-tested: radon-tight!
- + Walkable and fit for traffic, frost proof and odour-tight, backwater safe and thermally insulated: various 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 available as completion for individual needs
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

PIPE PENETRATIONS

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



**KRASO®**  
Floor Drain



**KRASO®**  
Floor Drain  
with foil flange



**KRASO®**  
Floor Drain for KG 2000



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

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



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



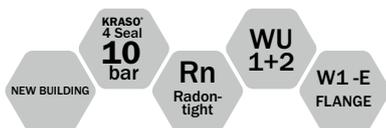
**KRASO®**  
Floor Drain Type FS for KG 2000  
with foil flange  
frost proof



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



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

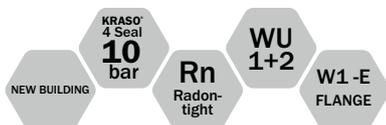


## KRASO® Floor Drain **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 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**

| Item                                       | KRASO® Floor Drain • KRASO® Floor Drain with foil flange   |
|--|--|
| Drainage capacity                          | 1.7 l/s  |
| Height                                     | drain approx. 110 mm                                       |
| Insert frame                               | steplessly rotatable and height-adjustable from 30 - 70 mm |
| Plastic grate (standard)                   | class K3 (withstands loads 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>93 €</b>  |
| <b>KRASO® Floor Drain with foil flange</b> | <b>136 €</b>   |
| <b>KRASO® PU 50</b>                        | <b>22 €</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® Floor Drain for KG 2000 **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 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**

| Item   | KRASO® Floor Drain for KG 2000 • KRASO® Floor Drain for KG 2000 with foil flange |
|--|--|
| Drainage capacity                                      | 1.7 l/s  |
| Height   | drain approx. 110 mm   |
| Insert frame   | steplessly rotatable and height-adjustable from 30 - 70 mm                       |
| Plastic grate  | class K3 (withstands loads up to 300 kg), 15 x 15 cm                             |
| Connection   | KG 2000/HT pipes either DN 50 or DN 110 vertical                                 |
| <b>KRASO® Floor Drain for KG 2000</b>                  | <b>118 €</b>   |
| <b>KRASO® Floor Drain for KG 2000 with foil flange</b> | <b>159 €</b>   |
| <b>KRASO® PU 50</b>                                    | <b>22 €</b>  |

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

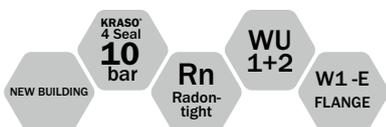


### KRASO® Floor Drain - thermally insulated - **LG 1**

according to DIN EN 1253 – for the installation in interior areas without traffic, for the drainage of grey water, drainage capacity: 1.7 l/s, with water pressure tight surrounding thermally welded **KRASO® 4 Seal** | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | KRASO® Floor Drain - thermally insulated -                     |
|---|--|
| Drainage capacity                                 | 1.7 l/s  |
| Height  | drain approx. 110 mm   |
| Insert frame                                      | steplessly rotatable and height-adjustable from 30 - 70 mm     |
| Stainless steel grate                             | class K3 (withstands loads 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>329 €</b>   |

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

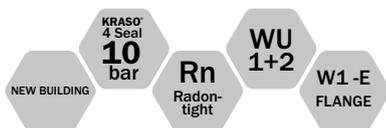


### KRASO® Floor Drain Type FS - frost proof **LG 1**

for the installation in exterior 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

| Item                                   | KRASO® Type FS • KRASO® Type FS with foil flange           |
|--|--|
| Drainage capacity                      | 1.67 l/s   |
| Height                                 | drain approx. 110 mm                                       |
| Insert frame                           | steplessly rotatable and height-adjustable from 30 - 70 mm |
| Stainless steel grate                  | class K3 (withstands loads up to 300 kg), 15 x 15 cm       |
| Connection                             | KG/HT - pipes DN 110 vertical                              |
| <b>KRASO® Type FS</b>                  | <b>194 €</b>   |
| <b>KRASO® Type FS with foil flange</b> | <b>238 €</b>   |
| <b>KRASO® PU 50</b>                    | <b>22 €</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 for KG 2000 - frost proof **LG1**

for the installation in exterior 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

| Item   | KRASO® Type FS for KG 2000 • KRASO® Type FS for KG 2000 with foil flange |
|--|--|
| Drainage capacity                                  | 1.67 l/s   |
| Height   | drain approx. 110 mm   |
| Insert frame                                       | steplessly rotatable and height-adjustable from 30 - 70 mm               |
| Stainless steel grate                              | class K3 (withstands loads up to 300 kg), 15 x 15 cm                     |
| Connection   | KG 2000/HT pipes DN 110 vertical   |
| <b>KRASO® Type FS for KG 2000</b>                  | <b>217 €</b>   |
| <b>KRASO® Type FS for KG 2000 with foil flange</b> | <b>262 €</b>   |
| <b>KRASO® PU 50</b>                                | <b>22 €</b>  |

**Scope of supply:** **KRASO® Floor Drain Type FS for 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 for 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 **LG1**



| 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<br>foil flange (d = approx. 50 cm) | steplessly height-adjustable from 15 - 120 mm, all visible parts made of stainless steel, stainless steel grate massive, screwed, 150 x 150 mm, fit for traffic up to 1.5 t, L 15 |
| <b>KRASO® Floor Drain - Accessories</b> | <b>22 €</b>            | <b>64 €</b>  | <b>188 €</b>  |



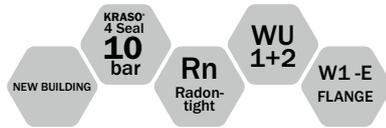
| Item                                    | Insert frame   | Stainless steel grate | Stainless steel grate - screwable -      |
|---|--|-----------------------|--|
| Item description                        | all visible parts made of stainless steel<br>incl. stainless steel grate | class K3              | incl. insert frame with threaded sleeves |
| <b>KRASO® Floor Drain - Accessories</b> | <b>165 €</b>   | <b>38 €</b>           | <b>66 €</b>                              |



| 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 | including: backflow seal, odour stopper, sludge trap filter insert frame and plastic grate | for industry floors treated with a power trowel                |
| <b>KRASO® Floor Drain - Accessories</b> | <b>119 €</b>                             | <b>51 €</b>  | <b>112 €</b>   |

**KRASO® Floor Drain Type FS - RS**  
with screwable stainless steel grate class K3,  
frost proof backwater double stopper,  
2 automatically closing caps, one of them as  
emergency valve - closable by one hand, sludge trap  
filter and building period protective cover

**KRASO® Floor Drain Type FS - RS**  
with foil flange



## KRASO® Floor Drain Type FS - RS

### Frost proof - backwater safe

- + For installation in outdoor areas for areas without traffic, for the drainage of grey water, drainage capacity: 0.4 l/s.
- + Winterproof due to frost proof backwater double stopper
- + PP-MD pipe (DIN 14758): high impact strength and durability
- + Screwable stainless steel grate: class K3 up to 300 kg
- + DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E



PIPE PENETRATIONS

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

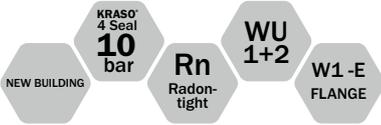
for the installation in exterior areas without traffic. Also available with **KRASO® Foil Flange**, oil- and bitumen resistant (d = approx. 50 cm). For the integration of the foil flange, we recommend our adhesive and sealant **KRASO® PU 50**. | DafStB waterproof concrete guideline: stress class 1 + 2, with foil flange DIN 18533 W1 -E

| 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                                | steplessly rotatable and height-adjustable from 30 - 70 mm |
| Stainless steel grate                       | class K3 (withstands loads 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>353 €</b>   |
| <b>KRASO® Type FS - RS with foil flange</b> | <b>391 €</b>   |
| <b>KRASO® PU 50</b>                         | <b>22 €</b>  |

**Scope of supply:** **KRASO® Floor Drain Type FS - RS**, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically closing caps, one of them as emergency valve - closable by one hand, sludge trap filter and building period protective cover • **KRASO® Floor Drain Type FS - RS with foil flange**, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, screwable stainless steel grate class K3, frost proof backwater double stopper, with 2 automatically closing caps, one of them as emergency valve - closable by one hand, sludge trap filter and building period protective cover



KRASO® Basement Drain with foil flange



## KRASO® Basement Drain

### For a dry basement

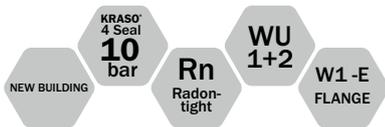
- + KRASO® Basement Drain with integrated, removable backwater and odour stopper!
- + For the connection of up to 3 intake pipes!
- + Drainage capacity: 1.8 l per second!
- + With height-adjustable and rotatable insert frame from 30 to 60 mm
- + Either with plastic or stainless steel grate
- + With water pressure tight surrounding thermally welded **KRASO® 4 Seal**: water pressure tight up to 10 bar!
- + Also available for 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 **LG1**

for the installation in areas without traffic and for the connection of up to 3 intake pipes. 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

| 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                                  | steplessly rotatable and height-adjustable from 30 - 60 mm               |  |
| 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</b>                  | <b>450 €</b>   | <b>570 €</b>                                     |
| <b>KRASO® Basement Drain with foil flange</b> | <b>585 €</b>   | <b>703 €</b>                                     |
| <b>KRASO® PU 50</b>                           | <b>22 €</b>  |  |

**Scope of supply:** KRASO® Basement Drain with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 • **KRASO® Basement Drain with foil flange** with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 300 kg



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

for the installation in areas without traffic and for the connection of up to 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

| Item  | KRASO® Basement Drain for KG 2000 with plastic grate                     | KRASO® Basement Drain for KG 2000 with stainless steel grate |
|---|--|--|
| Drainage capacity   | 1.8 l/s  |  |
| Height  | drain approx. 250 mm   |  |
| Insert frame  | steplessly rotatable and height-adjustable from 30 - 60 mm               |  |
| 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 for KG 2000</b>                  | <b>563 €</b>   | <b>713 €</b>   |
| <b>KRASO® Basement Drain for KG 2000 with foil flange</b> | <b>698 €</b>   | <b>816 €</b>   |
| <b>KRASO® PU 50</b>                                       | <b>22 €</b>  |  |

**Scope of supply:** KRASO® Basement Drain for KG 2000 with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 •

**KRASO® Basement Drain for KG 2000 with foil flange** with removable backwater stopper, integrated odour stopper, sludge trap filter and insert frame (telescopically height-adjustable from 30 to 60 mm and rotatable), two intakes DN 50, one intake DN 70, all intakes and drains either for KG, HT or KG 2000 pipes, with slot grate 20 x 20 cm made of black plastic or stainless steel, class K3 300 gw



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

| Item                               | Insert frame extension   | Insert frame extension  |
|------------------------------------|--|---|
| Item description                   | for <b>KRASO® Basement Drain</b> , <b>KRASO® Yard Drain Type 12.5</b> , height-adjustable from 46 - 130 mm, also suitable for <b>KRASO® Yard/Parking Level Drain Type 1.5</b> with stainless steel grate | for <b>KRASO® Yard/Parking Level Drain Type 1.5<sup>1</sup></b> , height-adjustable from min. 25 - 130 mm |
| <b>KRASO® Drains - Accessories</b> | <b>31 €</b>  | <b>103 €</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 usable on moist surfaces, recommended for all products with **KRASO® Foil Flange**, colour black, 290 ml - cartridge for cartridge press

| Item                | PU sealant  |
|---------------------|-------------|
| <b>KRASO® PU 50</b> | <b>22 €</b> |



NEW BUILDING

KRASO® 4 Seal  
10 bar

Rn  
Radon-tight

WU  
1+2

W1-E  
FLANGE

KRASO®  
Yard/Parking Level  
Drain  
Type 1.5

## 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 to DIN EN 1253
- + With frost proof odour barrier and removable sand trap basket
- + Load class A 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!
- + DafStB waterproof concrete guideline: stress class 1 + 2, with flange DIN 18533 W1 -E

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

for the installation in areas with traffic

| 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 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   | 295 €                                     | 534 €                                     |
| KRASO® Yard/Parking Level Drain with trowel flange with dovetail groove     | 492 €                                     | -   |
| KRASO® Yard/Parking Level Drain with stainless steel grate                  | 464 €                                     | -   |
| KRASO® Yard/Parking Level Drain with stainless steel grate with foil flange | 660 €                                     | -   |
| KRASO® Yard/Parking Level Drain with stainless steel grating                | -   | 740 €                                     |

**Scope of supply:** KRASO® Yard/Parking Level Drain Type 1.5 with frost proof odour barrier, removable sand trap basket, with slot grate approx. 24 x 24 cm, cast iron, load class A to 1.5 t, vertical discharge • KRASO® Yard/Parking Level Drain Type 12.5 with frost proof odour barrier, removable sand trap basket, with support frame made of 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

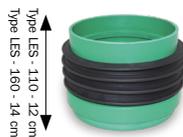
- + Flexible drainage system - for precast elements and in-situ concrete
- + Various components for individual demands
- + Also available for retrofit installation
- + DafStB waterproof concrete guideline: stress class 1 + 2



**KRASO® Type LES DN 160 - Basis for precast elements**  
with water pressure tight surrounding, thermally welded **KRASO® 2 Seal**.  
For later installation of LES - Vario - connection, LES - leaf sieve and LES - odour barrier



LES DN 160 - odour barrier  
removable, frost proof



**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 - leaf sieve and LES - odour barrier



LES DN 160 - backwater double stopper  
as emergency valve/closable by one hand, easily 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



**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



LES DN 110 - backwater stopper



LES DN 110 and DN 160 - leaf sieve

### KRASO® Type LES - light shaft drainage system **LG1**

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

| Item   | KRASO® Type LES - 110 | KRASO® Type LES - 160 |
|--|-----------------------|-----------------------|
| KRASO® Type LES - Basis for precast elements | 49 €                  | 55 €                  |
| KRASO® Type LES - Basis for in-situ concrete | 69 €                  | 82 €                  |
| KRASO® Type LES - Vario - connection         | 47 €                  | 55 €                  |
| LES - odour barrier                          | 36 €                  | 36 €                  |
| LES - backwater stopper                      | 131 €                 | -                     |
| LES - backwater double stopper               | -                     | 181 €                 |
| LES - leaf sieve                             | 37 €                  | 38 €                  |

Also available for retrofit installation!



The alternative  
to a fixed-loose flange!



NEW BUILDING  
REHABILITATION

**1.5  
bar**

W1 -E  
W2.1 -E

## KRASO® Flange Pipes

### Simple and effective integration into bituminous sealing

- + For new buildings and rehabilitation - according to DIN 18533 W1 -E and W2.1 -E
- + Simple and effective integration into bituminous sealing ("black tank"): bitumen thick coating and reactive sealing, sheeting, concrete and brick walls
- + Water pressure tight up to 1.5 bar - MPA-tested!
- + Made of dimensionally and pressure stable solid wall material with low abrasion! Installation even at lower temperatures
- + Pipe and pipe material in accordance with DIN EN 1401 (KG) or DIN EN 14758 (KG 2000)



**KRASO® PU 50:**  
high-quality, permanently elastic and strong PU-sealant! (290 ml - cartridge).  
Our recommendation for all products with **KRASO® Foil Flange!**



KRASO® Flange Pipe KG



KRASO® Flange Pipe for KG 2000



KRASO® Flange Pipe FE



KRASO® Type KMB



KRASO® Type KMB for KG 2000



KRASO® Type ÜSF



### KRASO® Flange Pipe KG **LG1**

for retrofit installation, for the connection to KG/HT pipes, 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. 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

| Item                         | KRASO® Flange Pipe KG |             |             |             |              |              |              |              |
|------------------------------|-----------------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------|
| Diameter DN                  | 110                   | 125         | 160         | 200         | 250          | 315          | 400          | 500          |
| Delivery length in cm        | 50                    |             |             |             |              |              |              |              |
| <b>KRASO® Flange Pipe KG</b> | <b>47 €</b>           | <b>49 €</b> | <b>62 €</b> | <b>78 €</b> | <b>154 €</b> | <b>230 €</b> | <b>293 €</b> | <b>450 €</b> |
| <b>KRASO® PU 50</b>          | <b>22 €</b>           |             |             |             |              |              |              |              |

Further diameters and lengths from 50 cm available on request!



### KRASO® Flange Pipe for KG 2000 **LG1**

for retrofit installation, for the connection to KG 2000 pipes, 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

| Item                                  | KRASO® Flange Pipe for KG 2000 |             |             |              |              |              |              |              |
|---------------------------------------|--------------------------------|-------------|-------------|--------------|--------------|--------------|--------------|--------------|
| Diameter DN                           | 110                            | 125         | 160         | 200          | 250          | 315          | 400          | 500          |
| Delivery length in cm                 | 50                             |             |             |              |              |              |              |              |
| <b>KRASO® Flange Pipe for KG 2000</b> | <b>62 €</b>                    | <b>79 €</b> | <b>87 €</b> | <b>122 €</b> | <b>279 €</b> | <b>389 €</b> | <b>499 €</b> | <b>652 €</b> |
| <b>KRASO® PU 50</b>                   | <b>22 €</b>                    |             |             |              |              |              |              |              |

Further diameters and lengths from 50 cm available on request!



### KRASO® Flange Pipe FE **LG1**

thick-walled true diameter plastic casing for retrofit installation of pipes and cables using a sealing insert (not included in the scope of supply), 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 = InternalDiameter flange pipe FE | DIN 18533 W1 -E and W2.1 -E

| Item                         | KRASO® Flange Pipe FE |             |             |             |              |              |
|------------------------------|-----------------------|-------------|-------------|-------------|--------------|--------------|
| InternalDiameter ID          | 100                   | 125         | 150         | 200         | 250          | 300          |
| External diameter in mm      | 110                   | 140         | 160         | 210         | 263          | 314          |
| Delivery length in cm        | 50                    |             |             |             |              |              |
| <b>KRASO® Flange Pipe FE</b> | <b>45 €</b>           | <b>49 €</b> | <b>56 €</b> | <b>80 €</b> | <b>113 €</b> | <b>134 €</b> |
| <b>KRASO® PU 50</b>          | <b>22 €</b>           |             |             |             |              |              |

Further diameters and lengths from 50 cm available on request!



### KRASO® Type KMB **LG 1**

plug-in flange, for retrofit sealing of KG/HT pipes using **KRASO® Foil Flange** with bitumen thick coating and reactive sealings, 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

| Item                   | KRASO® Type KMB |             |             |             |
|------------------------|-----------------|-------------|-------------|-------------|
| Diameter DN            | 110             | 125         | 160         | 200         |
| Plug-in length in cm   | 7               | 7.5         | 8           | 9           |
| <b>KRASO® Type KMB</b> | <b>49 €</b>     | <b>52 €</b> | <b>63 €</b> | <b>80 €</b> |
| <b>KRASO® PU 50</b>    | <b>22 €</b>     |             |             |             |

Further diameters available on request!



### KRASO® Type KMB for KG 2000 **LG 1**

plug-in flange, for retrofit sealing of KG 2000 pipes using **KRASO® Foil Flange** with bitumen thick coating and reactive sealings, 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

| Item                               | KRASO® Type KMB for KG 2000 |             |             |              |
|------------------------------------|-----------------------------|-------------|-------------|--------------|
| Diameter DN                        | 110                         | 125         | 160         | 200          |
| Plug-in length in cm               | 7                           | 7.5         | 8           | 9            |
| <b>KRASO® Type KMB for KG 2000</b> | <b>60 €</b>                 | <b>70 €</b> | <b>85 €</b> | <b>122 €</b> |
| <b>KRASO® PU 50</b>                | <b>22 €</b>                 |             |             |              |

Further diameters available on request!



### KRASO® Type ÜSF - slip-on flange **LG 1**

for retrofit sealing of installed KG, HT or KG 2000 pipes, using **KRASO® Foil Flange** with bitumen sealing (e.g. KMB), with 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

| Item                   | KRASO® Type ÜSF |             |              |              |              |              |
|------------------------|-----------------|-------------|--------------|--------------|--------------|--------------|
| Diameter DN            | 110             | 125         | 160          | 200          | 250          | 315          |
| <b>KRASO® Type ÜSF</b> | <b>87 €</b>     | <b>95 €</b> | <b>113 €</b> | <b>208 €</b> | <b>307 €</b> | <b>411 €</b> |
| <b>KRASO® PU 50</b>    | <b>22 €</b>     |             |              |              |              |              |

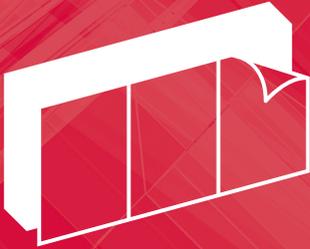
Further diameters available on request!



### KRASO® PU 50 **LG 1**

high-quality, permanently elastic and strong PU-sealant, also usable on moist surfaces, recommended for all products with **KRASO® Foil Flange**, colour black, 290 ml cartridge for cartridge presses

| Item                | PU sealant  |
|---------------------|-------------|
| <b>KRASO® PU 50</b> | <b>22 €</b> |



Solutions for

# Concrete Composite Films (FBV)

## + Floor

**KRASO®** Floor Penetration Type FBV-BDF \_\_\_\_\_ 122

## + Wall

**KRASO®** Wall Penetration Type FBV-FR \_\_\_\_\_ 123

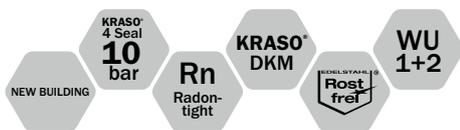
**KRASO®** Casing Type FBV-FE \_\_\_\_\_ 124

**KRASO®** Cable Penetration FBV-KDS \_\_\_\_\_ 125

**KRASO®** Sealing Insert Type FBV/GF \_\_\_\_\_ 126

## + Concrete

Fresh concrete composite (FBV) solutions made of concrete – pump sumps, lift pits, cable ducts \_\_\_\_\_ 126



## KRASO® Floor Penetration Type FBV-BDF

### The effective sealing system

- + Floor penetration for an integration into fresh concrete composite sealing in compliance with the system
- + Independent of the manufacturer: fresh concrete composite films (FBV) from any manufacturer can be integrated into the system at the factory
- + **KRASO® FBV-Sealing Flange** made of non-corrosive stainless steel V2A with 20 cm surrounding square fresh concrete composite film
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + **KRASO® Floor Penetration Type BDF**: the proven floor penetration with **KRASO® 4 Seal** - MPA-tested up to 10 bar!
- + IAF-tested: radon-tight!
- + Made of dimensionally and pressure stable solid wall material with low abrasion! Installation even at lower temperatures!
- + Formed plug-in sleeve on one side for the connection of KG, HT or KG 2000 pipes
- + Including **KRASO® Cover** as building period protective cover
- + DafStB waterproof concrete guideline: stress class 1 + 2

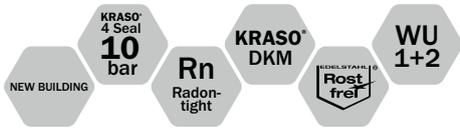


### KRASO® Floor Penetration Type FBV-BDF **LG 1**

floor penetration for a compliant integration of fresh concrete composite films (FBV) | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                   | KRASO® Type FBV-BDF • KRASO® Type FBV-BDF for KG 2000 |       |       |       |       |       |         |         |
|--|---|-------|-------|-------|-------|-------|---------|---------|
|  | 110   | 125   | 160   | 200   | 250   | 315   | 400     | 500     |
| Diameter DN                            | 110   | 125   | 160   | 200   | 250   | 315   | 400     | 500     |
| Delivery length (in cm)                | 50  |       |       |       |       |       |         |         |
| <b>KRASO® Type FBV-BDF</b>             | 246 €   | 302 € | 309 € | 418 € | 605 € | 724 € | 937 €   | 1,150 € |
| <b>KRASO® Type FBV-BDF for KG 2000</b> | 253 €   | 312 € | 325 € | 447 € | 702 € | 822 € | 1,071 € | 1,302 € |

**Scope of supply:** KRASO® Type FBV-BDF or KRASO® Type FBV-BDF for KG 2000, KRASO® Cover as building period protective cover, KRASO® FBV Sealing Flange with 20 cm surrounding, square fresh concrete composite film



## KRASO® Wall Penetration Type FBV-FR

### Always the right flow direction using FBV system

- + Wall Penetration for a compliant integration of fresh concrete composite films
- + Independent of the manufacturer: fresh concrete composite films (FBV) from any manufacturer can be integrated into the system at our factory.
- + **KRASO® FBV Sealing Flange** made of non-corrosive stainless steel V2A with 20 cm surrounding, square fresh concrete composite film
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + Thanks to the **KRASO® Wall Penetration Type FR**, waste water always maintains the correct flow direction! Unnecessary edges are prevented. Blocked pipes: impossible!
- + Due to the flexible yet water pressure tight connection to the pipe system, stresses occurring caused by the setting of the KG pipes are minimised!
- + The basement remains dry and is protected against radon thanks to the up to 10 bar water pressure tight surrounding **KRASO® 4 Seal**!
- + Made of solid wall material! Also available for KG 2000 made of polypropylene (PP), mineral-filled, smooth walls, long-lasting
- + DafStB waterproof concrete guideline: stress class 1 + 2



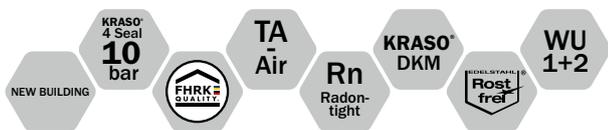
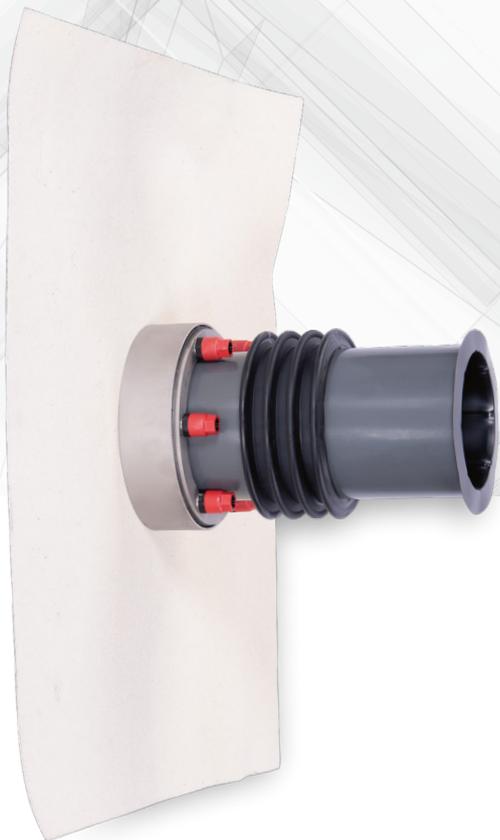
### KRASO® Wall Penetration Type FBV-FR - flow direction **LG 1**

wall penetration for a compliant integration of fresh concrete composite films | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                      | KRASO® Type FBV-FR             |       |       |
|---|--------------------------------|-------|-------|
|   | 110                            | 125   | 160   |
| Diameter DN                               | 110                            | 125   | 160   |
| Available standard wall thicknesses in cm | 20 <sup>1</sup> · 24 · 25 · 30 |       |       |
| <b>KRASO® Type FBV-FR</b>                 | 309 €                          | 315 € | 420 € |
| <b>KRASO® Type FBV-FR for KG 2000</b>     | 324 €                          | 330 € | 449 € |

<sup>1</sup> Wall thickness 20 cm only available in DN 110, not available in KG 2000

**Scope of supply:** KRASO® Type FBV-FR or KRASO® Type FBV-FR for KG 2000, 2 KRASO® Covers as an installation aid, KRASO® FBV Sealing Flange with 20 cm surrounding, square fresh concrete composite film



## KRASO® Casing Type FBV-FE

### The casing for FBV integration

- + Casing for a compliant integration of fresh concrete composite films
- + Independent from the manufacturer: fresh concrete composite films (FBV) of all manufacturers can be integrated at the factory
- + **KRASO® FBV Sealing Flange** made of non-corrosive stainless steel V2A with 20 cm surrounding, square fresh concrete composite film
- + **Torque Control Nut KRASO® DKM**: integrated torque limiter - no torque wrench required!
- + The thick-walled true diameter plastic casing for concreting: as a recess for retrofit installation of cables or pipes using a sealing insert!
- + With water pressure tight surrounding **KRASO® 4 Seal** – certified and approved: due to the special geometry, the **KRASO® 4 Seal** produces a water pressure, gas- and odour-tight grip with the concrete
- + Material and processing: **KRASO® Casings** are made of weatherproof and impact resistant plastic. The water pressure tight surrounding **KRASO® 4 Seal** is joined monolithically to the plastic pipe by vulcanization
- + IAF-tested: radon-tight!
- + Certified with the quality seal of the FHRK e. V.
- + DafStB waterproof concrete guideline: stress class 1 + 2

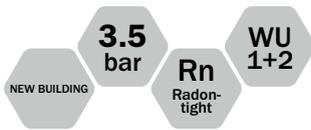
### KRASO® Casing Type FBV-FE - true diameter casing **LG 1**

thick-walled plastic casing for a compliant integration of FBV films | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                      | KRASO® Type FBV-FE                           |              |              |              |              |              |
|---|--|--------------|--------------|--------------|--------------|--------------|
| Internal Diameter in mm                   | 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 FBV-FE</b>                 | <b>245 €</b>                                 | <b>302 €</b> | <b>304 €</b> | <b>418 €</b> | <b>564 €</b> | <b>638 €</b> |

**Scope of supply:** KRASO® Casing Type FBV-FE, 2 KRASO® Covers as an installation aid, KRASO® FBV Sealing Flange with 20 cm surrounding, square fresh concrete composite film

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



## KRASO® Cable Penetration FBV-KDS Double wall penetration as FBV system

- + Cable penetration for the compliant integration of fresh concrete composite films
- + Independent from the manufacturer: fresh concrete composite films (FBV) of all manufacturers can be integrated at the factory.
- + **KRASO® FBV Sealing Flange** made of non-corrosive stainless steel V2A with 20 cm surrounding, square fresh concrete composite film
- + Compatible with all other current systems! Tight due to the water pressure tight surrounding **KRASO® 4 Seal!** Secure due to break-resistant solid wall material!
- + The intelligent, all-purpose and flexible cable penetration system for complex construction projects: public buildings, hospitals, technical-scientific institutions or industrial and commercial sectors
- + With plug-in system on both sides for forming packages!
- + DafStB waterproof concrete guideline: stress class 1 + 2

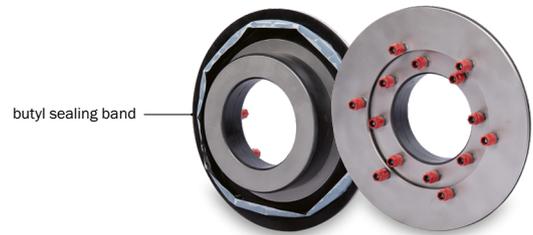
FBV SOLUTIONS

### KRASO® Cable Penetration FBV-KDS double wall penetration **LG 1**

cable penetration system for concreting | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASO® Cable Penetration FBV-KDS double wall penetration |      |    |    |    |    |    |      |    |    |    |
|--|--|------|----|----|----|----|----|------|----|----|----|
|  | 15   | 17.5 | 20 | 24 | 25 | 30 | 35 | 36.5 | 40 | 45 | 50 |
| <b>KRASO® Cable Penetration FBV-KDS 90</b><br>double wall penetration  | 343 €  |      |    |    |    |    |    |      |    |    |    |
| <b>KRASO® Cable Penetration FBV-KDS 150</b><br>double wall penetration | 491 €  |      |    |    |    |    |    |      |    |    |    |

**Scope of supply:** KRASO® FBV-KDS 90 or KRASO® FBV-KDS 150 double wall penetration, 2 KDS closure covers, KRASO® FBV Sealing Flange with 20 cm surrounding, square fresh concrete composite film



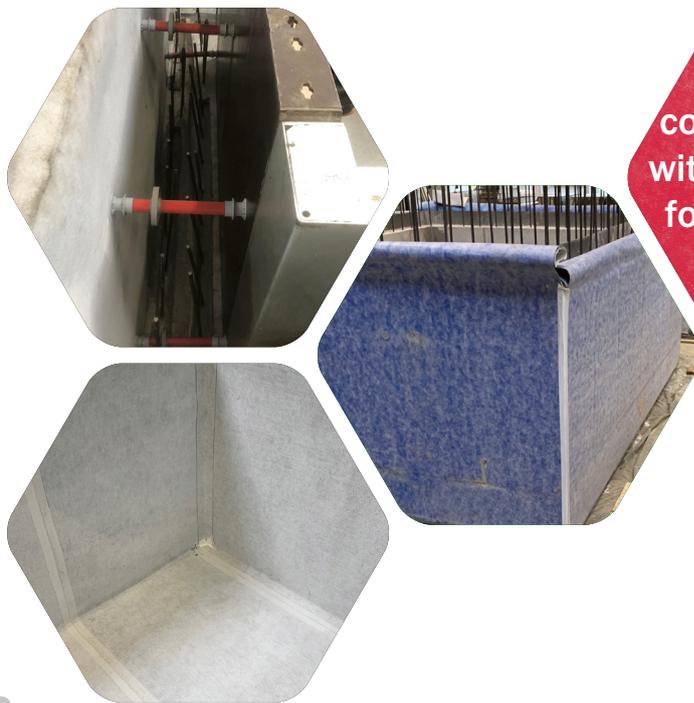
## KRASO® Sealing Insert Type FBV/GF **LG 1**

for installation of pipes or cables, for casing or core drilling, with large flange and additional sealing flange incl. butyl sealing band for the integration of FBV films, **Torque Control Nut KRASO® DKM\***, non-corrosive stainless steel V2A, against pressing water up to 2.5 bar | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Core drilling / casing in mm<br>(from - to) | 80<br>(79 - 83)   | 100<br>(99 - 103) | 125<br>(124 - 128) | 150<br>(149 - 153) | 200<br>(198 - 203) | 250<br>(248 - 253) | 300<br>(298 - 303) | 350<br>(348 - 353) | 400<br>(398 - 403) | 450<br>(448 - 453) | 500<br>(497 - 503) |
|---|---|-------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| max. external diameter pipe or cable        |   |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| from  | 0   | 0                 | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  | 0                  |
| to  | 55  | 75                | 100                | 125                | 175                | 225                | 275                | 325                | 375                | 425                | 475                |
| <b>KRASO® Type FBV/GF</b>                   |   |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |
| <b>KRASO® Type FBV/GF</b>                   | <b>384 €</b>  | <b>448 €</b>      | <b>499 €</b>       | <b>585 €</b>       | <b>730 €</b>       | <b>907 €</b>       | <b>1,143 €</b>     | <b>1,333 €</b>     | <b>1,578 €</b>     | <b>1,789 €</b>     | <b>1,987 €</b>     |
| Surcharge: additional drilling              | <b>up to 5 drillings each additional drilling 17 €, each further additional drilling 11 €</b> |                   |                    |                    |                    |                    |                    |                    |                    |                    |                    |

\* In some cases, allen screws must be used due to the design.

**All sizes and diameters available on request!**



**Precast concrete elements with FBV film: ready for the integration into the FBV system**



## KRASO® FBV solutions made of concrete Pump Sumps, lift pits, inspections shafts

- + Precast concrete elements as special designs for a compliant integration of fresh concrete composite films: pump sumps, lift pits, cable ducts, inspection shafts
- + Complete foil cover for integration into the base plate!  
Manufacturer-independent: fresh concrete composite films (FBV) of all manufacturers can be integrated
- + Weather-independent production, completely custom-made exactly according to your instructions!
- + The surrounding water pressure tight construction joint tape **KRASOflex® Duo-Fix 150 "plus"** ensures a water pressure tight passage to the base plate
- + Simple and fast placement on-site thanks to crane lifting lugs!



# Pump Sumps



## + Concrete

|   |           |
|---|-----------|
| <b>KRASO® Pump Sump - concrete -</b>        | _____ 128 |
| <b>KRASO® Inspection Shaft - concrete -</b> | _____ 133 |

## + Plastic

|  |           |
|--|-----------|
| <b>KRASO® Pump Sump Type Q - square -</b>              | _____ 129 |
| <b>KRASO® Backwater Shaft Type Q - sewage -</b>        | _____ 133 |
| <b>KRASO® Pump Sump Type Q - thermally insulated -</b> | _____ 133 |
| <b>KRASO® Pump Sump Type Q - sewage -</b>              | _____ 135 |
| <b>KRASO® Pump Sump Poly 400</b>                       | _____ 136 |
| <b>KRASO® Pump Sump Poly 400 - LR</b>                  | _____ 136 |
| <b>KRASO® Pump Sump Poly 400 - NE</b>                  | _____ 136 |
| <b>KRASO® Poly - Inspection Shaft</b>                  | _____ 137 |
| <b>KRASO® Pressure Shaft 400</b>                       | _____ 137 |
| <b>KRASO® Water Shaft</b>                              | _____ 137 |

## + Covers

|   |           |
|---|-----------|
| <b>KRASO® Pump Sump Cover - walkable</b>                                    | _____ 130 |
| <b>KRASO® Pump Sump Cover - walkable -, water and odour tight screwable</b> | _____ 130 |
| <b>KRASO® Pump Sump Cover - fit for traffic up to 5 t</b>                   | _____ 131 |
| <b>KRASO® Pump Sump Cover - fit for traffic up to 15 t</b>                  | _____ 131 |
| <b>KRASO® Pump Sump Cover - fillable -</b>                                  | _____ 132 |
| <b>KRASO® Grating Cover - walkable -</b>                                    | _____ 132 |
| <b>KRASO® Pump Sump Covers Poly 400</b>                                     | _____ 138 |



KRASO® Pump Sump - concrete -  
Check the installation video  
(Just scan the QR code!)

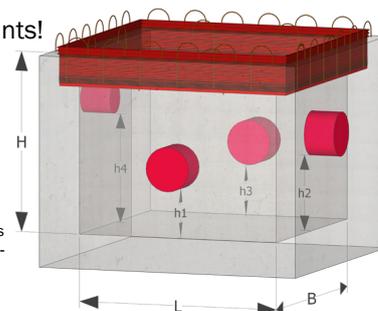


NEW BUILDING  
3 bar  
ABP  
WU 1+2

## KRASO® Pump Sump - concrete - Saves time and money in one piece cast

- + Avoid formworks on-site - and save time and money with the **KRASO® Pump Sump** as ready-made concrete element!
- + Made of waterproof concrete (C35/45) in one piece cast - without additional joints!
- + 12 cm thick, reinforced walls as well as the surrounding water pressure tight, MPA-tested construction joint tape **KRASOflex® Duo-Fix 150 "plus"** grant a water pressure tight passage to the base plate.
- + Simple and fast placement on-site thanks to crane lifting lugs!
- + DafStB waterproof concrete guideline: stress class 1 + 2

arrangement of connections ref. standard sizes  
KRASO® Pump Sump - concrete -



### KRASO® Pump Sump - concrete - **LG 3**

for collecting waste water | DafStB waterproof concrete guideline: stress class 1 + 2

| KRASO® Pump Sump - concrete -             |                         |                     |   |             |             |             |                                  |
|---|-------------------------|---------------------|---|-------------|-------------|-------------|----------------------------------|
| Internal dimensions<br>(L x B x H, in cm) | Weight<br>approx. in kg | Design              | Position and diameter of the connection                     |             |             |             | KRASO® Pump<br>Sump - concrete - |
|   |                         |                     | h1 (in cm)  | h2 (in cm)  | h3 (in cm)  | h4 (in cm)  |                                  |
| 60 x 60 x 40                              | 600                     | standard            | 15 - DN 110   |             |             |             | 596 €                            |
|   |                         | closed              |   |             |             |             |                                  |
| 60 x 60 x 60                              | 700                     | standard            | 40 - DN 110   | 20 - DN 110 |             |             | 656 €                            |
|   |                         | with one connection | 40 - DN 110   |             |             |             |                                  |
|   |                         | closed              |   |             |             |             |                                  |
| 80 x 80 x 70                              | 1,100                   | standard            | 20 - DN 160   | 30 - DN 160 | 20 - DN 160 | 40 - DN 110 | 896 €                            |
|   |                         | with one connection |   |             |             | 40 - DN 110 |                                  |
|   |                         | closed              |   |             |             |             |                                  |
| 100 x 100 x 80                            | 1,500                   | standard            | 50 - DN 160   | 40 - DN 160 | 20 - DN 160 | 40 - DN 110 | 994 €                            |
|   |                         | with one connection |   |             |             | 40 - DN 110 |                                  |
|   |                         | closed              |   |             |             |             |                                  |
| 100 x 100 x 100                           | 1,750                   | standard            |   |             |             | 40 - DN 110 | 1,355 €                          |
|   |                         | closed              |   |             |             |             |                                  |
| 120 x 120 x 80                            | 1,800                   | standard            | 50 - DN 160   | 20 - DN 160 | 40 - DN 160 | 40 - DN 110 | 1,505 €                          |
|   |                         | with one connection |   |             |             | 40 - DN 110 |                                  |
|   |                         | closed              |   |             |             |             |                                  |
|   |                         |                     | Surcharge special design with standard internal dimensions* |             |             |             |                                  |
| Connection DN 110                         |                         |                     | 71 €  |             |             |             |                                  |
| Connection DN 125                         |                         |                     | 80 €  |             |             |             |                                  |
| Connection DN 160                         |                         |                     | 88 €  |             |             |             |                                  |

\* Calculation basis = closed pump sump

Further sizes and connections available as special design on request!



KRASO® Pump Sump Type Q - square -  
Check the installation video  
(Just scan the QR code!)



## KRASO® Pump Sump Type Q - square - Low weight - quick delivery: the simple and tight plastic solution

- + Low weight = low transport costs and easy handling without crane on-site
- + Saves time, labour, money and additional drainage: no cost-intensive works, no concreting sections for several days and no shuttering!
- + No risk occurring due to leaking concrete joints and/or pipe connections!
- + Resistant against many acids and lyes!
- + Made of high-quality, impact resistant, almost indestructible plastic. Special dimensions are available within a few days!
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASO® Pump Sump Type Q - square - **LG 2**

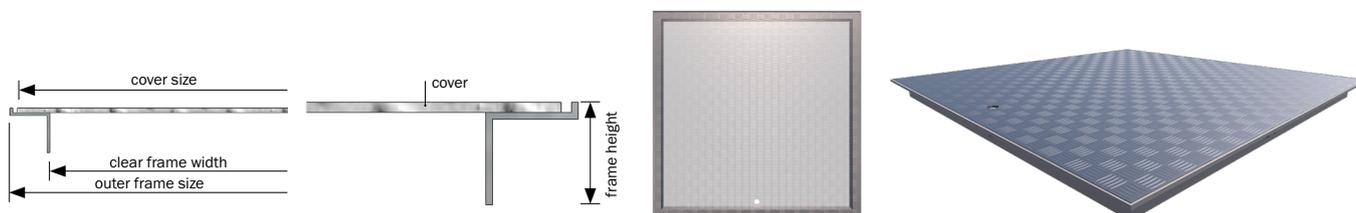
for collecting waste water, suitable for KG, HT and KG 2000 pipes | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | 600/60       | 600/80       | 800/100        | 1000/100       |
|--|--------------|--------------|----------------|----------------|
| Internal dimensions in cm                        | 60 x 60      | 60 x 60      | 80 x 80        | 100 x 100      |
| Internal height in cm                            | 60           | 80           | 100            | 100            |
| 1 x connection DN 110 (height bottom edge in cm) | 20           | 20           | 30             | 30             |
| Weight approx. in kg                             | 25           | 28           | 53             | 66             |
| <b>KRASO® Pump Sump Type Q - square -</b>        | <b>761 €</b> | <b>893 €</b> | <b>1,284 €</b> | <b>1,548 €</b> |
| Surcharge: additional connection DN 110          |              |              | 56 €           |                |
| Surcharge: additional connection DN 160          |              |              | 85 €           |                |

Further sizes and designs available on request! Modification of the pipe connection height possible!

# KRASO® Pump Sump Covers

## For KRASO® Pump Sump - concrete - and Type Q - square -

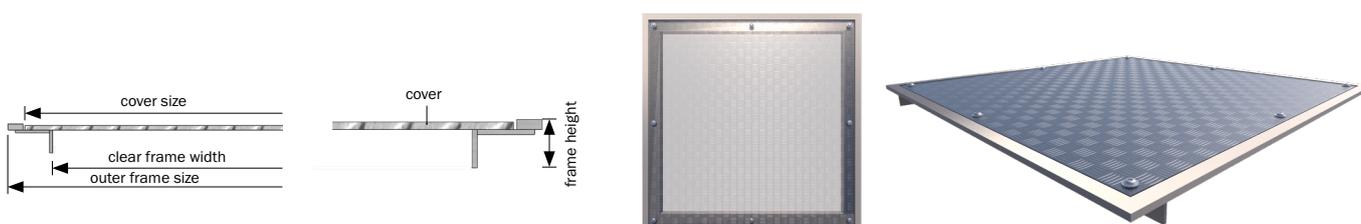


### KRASO® Pump Sump Cover - walkable **LG 6**

for KRASO® Pump Sump - concrete - and KRASO® Pump Sump Type Q - square -, bulb plate galvanised, walkable

| Item                                     | KRASO® Pump Sump Cover - walkable |              |              |              |
|--|-----------------------------------|--------------|--------------|--------------|
| Pump sump dimension in cm                | 60 x 60                           | 80 x 80      | 100 x 100    | 120 x 120    |
| Cover size in mm                         | 700 x 700                         | 900 x 900    | 1100 x 1100  | 1275 x 1275  |
| Cover in mm                              | 3/5                               |              |              |              |
| Frame height in mm                       | 32                                | 32           | 32           | 36           |
| Outer frame size in mm                   | 708 x 708                         | 908 x 908    | 1108 x 1108  | 1320 x 1320  |
| Clear frame width in mm                  | 654 x 654                         | 854 x 854    | 1054 x 1054  | 1210 x 1210  |
| Concrete anchors / pcs.                  | 4                                 | 4            | 8            | 8            |
| <b>KRASO® Pump Sump Cover - walkable</b> | <b>167 €</b>                      | <b>293 €</b> | <b>505 €</b> | <b>905 €</b> |

Special designs available on request!

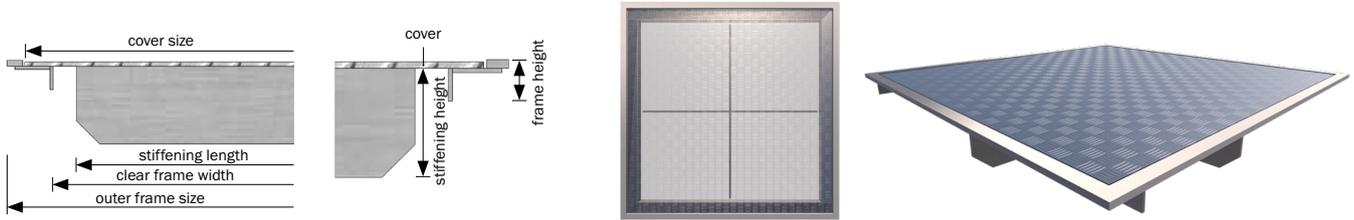


### KRASO® Pump Sump Cover - walkable -, water and odour tight screwable **LG 6**

for KRASO® Pump Sump - concrete - and KRASO® Pump Sump Type Q - square -, bulb plate galvanised, walkable, water and odour tight screwable

| Item  | KRASO® Pump Sump Cover - walkable -, water and odour-tight |              |              |                |
|---|--|--------------|--------------|----------------|
| Pump sump dimension in cm   | 60 x 60  | 80 x 80      | 100 x 100    | 120 x 120      |
| Cover size in mm  | 700 x 700  | 900 x 900    | 1100 x 1100  | 1275 x 1275    |
| Cover in mm   | 3/5  |              |              |                |
| Frame height in mm  | 36   |              |              |                |
| Outer frame size in mm  | 745 x 745  | 945 x 945    | 1145 x 1145  | 1320 x 1320    |
| Clear frame width in mm   | 635 x 635  | 835 x 835    | 1035 x 1035  | 1210 x 1210    |
| Concrete anchors / pcs.   | 4  | 4            | 8            | 8              |
| <b>KRASO® Pump Sump Cover - walkable -, water and odour-tight</b> | <b>457 €</b>   | <b>576 €</b> | <b>905 €</b> | <b>1,497 €</b> |

Special designs available on request!

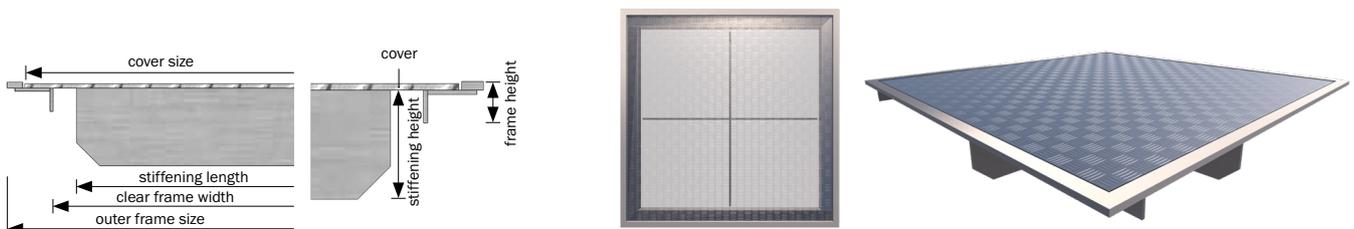


### KRASO® Pump Sump Cover - fit for traffic up to 5 t, wheel pressure up to 1.25 t **LG 6**

for KRASO® Pump Sump - concrete - and KRASO® Pump Sump Type Q - square -, bulb plate galvanised, fit for traffic up to 5 t, wheel pressure up to 1.25 t

| Item   | KRASO® Pump Sump Cover - fit for traffic up to 5 t, wheel pressure up to 1.25 t |              |                |                |
|--|---|--------------|----------------|----------------|
| Pump sump dimension in cm  | 60 x 60   | 80 x 80      | 100 x 100      | 120 x 120      |
| Cover size in mm   | 700 x 700   | 900 x 900    | 1100 x 1100    | 1275 x 1275    |
| Cover in mm  | 5/7   |              |                |                |
| Frame height in mm   | 38  |              |                |                |
| Outer frame size in mm   | 745 x 745   | 945 x 945    | 1145 x 1145    | 1320 x 1320    |
| Clear frame width in mm  | 635 x 635   | 835 x 835    | 1035 x 1035    | 1210 x 1210    |
| Stiffening in mm   | 7   |              |                |                |
| Stiffening height in mm  | 80  |              |                |                |
| Stiffening quantity  | 1   | 2            | 2              | 3              |
| Concrete anchors / pcs.  | 4   | 4            | 8              | 8              |
| <b>KRASO® Pump Sump Cover - fit for traffic up to 5 t, wheel pressure up to 1.25 t</b> | <b>414 €</b>  | <b>684 €</b> | <b>1,191 €</b> | <b>1,758 €</b> |

Special designs available on request!



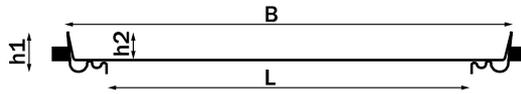
### KRASO® Pump Sump Cover - fit for traffic up to 15 t, wheel pressure up to 3.75 t **LG 6**

for KRASO® Pump Sump - concrete - and KRASO® Pump Sump Type Q - square -, bulb plate galvanised, fit for traffic up to 15 t, wheel pressure up to 3.75 t

| Item  | KRASO® Pump Sump Cover - fit for traffic up to 15 t, wheel pressure up to 3.75 t |                |                |                |
|---|--|----------------|----------------|----------------|
| Pump sump dimension in cm   | 60 x 60  | 80 x 80        | 100 x 100      | 120 x 120      |
| Cover size in mm  | 700 x 700  | 900 x 900      | 1100 x 1100    | 1275 x 1275    |
| Cover in mm   | 6/8  |                |                |                |
| Frame height in mm  | 38   |                |                |                |
| Outer frame size in mm  | 745 x 745  | 945 x 945      | 1145 x 1145    | 1320 x 1320    |
| Clear frame width in mm   | 635 x 635  | 835 x 835      | 1035 x 1035    | 1210 x 1210    |
| Stiffening in mm  | 8  |                |                |                |
| Stiffening height in mm   | 100  |                |                |                |
| Stiffening quantity   | 1  | 2              | 2              | 3              |
| Concrete anchors / pcs.   | 4  | 8              | 8              | 8              |
| <b>KRASO® Pump Sump Cover - fit for traffic up to 15 t, wheel pressure up to 3.75 t</b> | <b>735 €</b>   | <b>1,047 €</b> | <b>1,919 €</b> | <b>2,597 €</b> |

Special designs available on request!

frame profile  
 h1 = installation height approx. 7.5 cm  
 h2 = tub depth approx. 5 cm



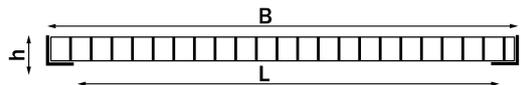
## KRASO® Pump Sump Cover - fillable - **LG 6**

fillable galvanised tub, water and odour-tight, loading after filling with concrete C35/45: approx. 125 kN

| Item                                | KRASO® Pump Sump Cover - fillable - |           |           |             |
|-------------------------------------|-------------------------------------|-----------|-----------|-------------|
| Pump sump dimension in cm           | 60 x 60                             | 80 x 80   | 100 x 100 | 120 x 120   |
| Outer frame size in mm              | B                                   | 735 x 735 | 935 x 935 | 1135 x 1135 |
| Clear frame width in mm             | L                                   | 600 x 600 | 800 x 800 | 1000 x 1000 |
| KRASO® Pump Sump Cover - fillable - |                                     | 667 €     | 952 €     | 1,212 €     |
|                                     |                                     |           |           | on request  |

Special designs available on request!

frame profile  
 h = frame height from 25 to 40 mm



## KRASO® Grating Cover - walkable - **LG 6**

galvanised

| Item                              | KRASO® Grating Cover - walkable - |           |           |             |
|-----------------------------------|-----------------------------------|-----------|-----------|-------------|
| Pump sump dimension in cm         | 60 x 60                           | 80 x 80   | 100 x 100 | 120 x 120   |
| Outer frame size in mm            | B                                 | 685 x 685 | 885 x 885 | 1095 x 1095 |
| Clear frame width in mm           | L                                 | 600 x 600 | 800 x 800 | 1000 x 1000 |
| Bearing bar in mm                 |                                   | 25/1.7    | 25/2      | 30/2        |
|                                   |                                   |           |           | 40/1.7      |
| Mesh size in mm                   |                                   | 30/30     | 30/30     | 30/30       |
| Concentrated load approx. in kg   |                                   | 150       | 150       | 150         |
| KRASO® Grating Cover - walkable - |                                   | 251 €     | 441 €     | 633 €       |
|                                   |                                   |           |           | 1,041 €     |

Special designs available on request!

## KRASO® Pump Sumps delivery to the construction site!

+ KRASO® Pump Sumps – whether made of concrete or plastic – save time and money!

+ Precise planning of your construction process is possible with a delivery directly to your construction site.

Thanks to pre-installed crane lifting lugs, KRASO® Pump Sumps made of concrete can be unloaded and installed easily on the construction site!

PUMP SUMPS





### KRASO® Inspection Shaft - concrete - **LG 3**

as maintenance opening, made of waterproof concrete (C35/45) with 12 cm strong, reinforced walls in one piece cast, with surrounding water pressure tight, MPA-tested construction joint tape **KRASOflex® Duo-Fix 150 "plus"**, rebar connection 8/15, and crane lifting lugs for easy placement on-site, incl. 2 opposite **KRASO® Pipe Connections DN 160** bottom edge approx. 20 cm, suitable for KG, HT and KG 2000 pipes  
**| DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | 80 x 80 x 70             | 80 x 80 x 70   | 80 x 80 x 70  | 80 x 80 x 70  |
|---|--------------------------|--|---|---|
| Internal dimensions in cm                   | 80 x 80                  | 80 x 80  | 80 x 80   | 80 x 80   |
| Internal height in cm                       | 70                       | 70   | 70  | 70  |
|   | without cleaning opening | with cleaning opening, fully assembled DN 160, for sewage free of faeces | with cleaning opening, fully assembled DN 160 incl. simple backwater stopper without emergency valve, for sewage free of faeces, according to DIN EN 13564 Type 0 | with cleaning opening, fully assembled DN 160 incl. backwater double stopper with emergency valve, for sewage free of faeces, according to DIN 13564 Type 2 |
| Weight approx. in t                         | 1.1                      | 1.1  | 1.1   | 1.1   |
| <b>KRASO® Inspection Shaft - concrete -</b> | <b>896 €</b>             | <b>1,125 €</b>   | <b>1,348 €</b>  | <b>1,492 €</b>  |



### KRASO® Backwater Shaft Type Q - sewage - **LG 2**

for backwater protection according to DIN EN 13564 Type F3, made of plastic, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, concrete anchors, reinforcing ribs and 2 water pressure tight pipe connections, suitable for KG, HT and KG 2000 pipes, 1 electric pressure flap (with emergency power function), 1 manual return valve, for sewage containing faeces  
**| DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | 600/60         | 800/100        |
|---|----------------|----------------|
| Internal dimensions in cm                       | 60 x 60        | 80 x 80        |
| Internal height in cm                           | 60             | 100            |
| Pipe connection height in cm h1/h2              | 6/5            | 7/6            |
| Backwater diameter                              | DN 110         | DN 160         |
| Weight approx. in kg                            | 28             | 56             |
| <b>KRASO® Backwater Shaft Type Q - sewage -</b> | <b>3,762 €</b> | <b>4,387 €</b> |

Special sizes and designs available on request!



### KRASO® Pump Sump Type Q - thermally insulated - **LG 2**

for collecting waste water, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, concrete anchors, reinforcing ribs, 1 water pressure tight KG pipe connection DN 110, surrounding approx. 10 cm thick thermal insulation  
**| DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | 600/60                    | 600/80  | 800/100 | 1000/100  |
|--|---------------------------|---------|---------|-----------|
| Internal dimensions in cm                              | 60 x 60                   | 60 x 60 | 80 x 80 | 100 x 100 |
| Internal height in cm                                  | 60                        | 80      | 100     | 100       |
| DN 110   | 20                        | 20      | 30      | 30        |
| Weight approx. in kg                                   | 49                        | 60      | 113     | 143       |
| <b>KRASO® Pump Sump Type Q - thermally insulated -</b> | <b>Prices on request!</b> |         |         |           |

Special sizes and designs available on request! Modification of pipe connection height possible!



**KRASO® Pump Sump - concrete - special**  
 internal dimensions approx.: 310 x 75 x 235 cm,  
 made of waterproof concrete,  
 with 20 cm thick, reinforced wall and base plates  
 (20 kg per cbm). Rebar connection approx. 8/15  
 double-row, water pressure tight surrounding,  
 MPA-tested construction joint tape  
**KRASOflex® Duo-Fix 150 "plus"**,  
 total weight: approx. 11.7 t



**Example 100 x 100 x 80 cm**  
 total weight: approx. 1.5 t



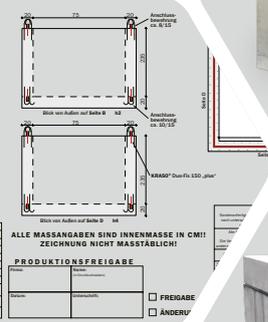
**Example 60 x 60 x 33 cm**  
 total weight: approx. 0.5 t



**Example 200 x 200 x 170 cm**  
 total weight: approx. 18.2 t



**Example 140 x 70 x 65 cm**  
 total weight: approx. 4.5 t



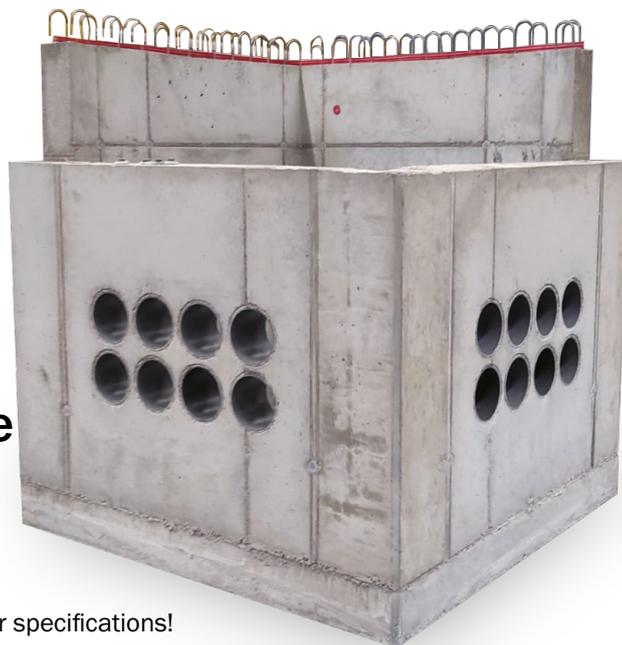
NEW BUILDING

## KRASO®

### Special designs made of concrete

#### Pumps sumps, cable ducts, lift pits

- + Made of waterproof concrete, produced exactly according to your specifications!  
 All dimensions (width, length, height, wall thickness) are variable
- + Installation parts such as pipe penetrations, casings or anchor rails (for lift pits) are installed accurately.
- + Weather-independent production of concrete shafts up to a total weight of 20 tons!
- + Saves time, working hours, money and additional drainage! We are happy to advise you individually!





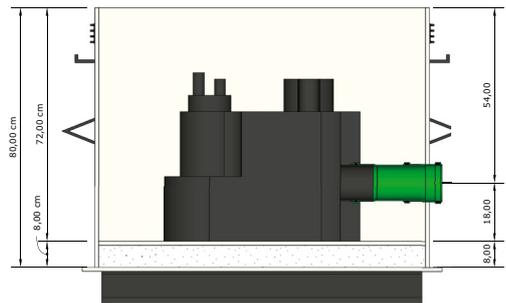
wedge gate valve for  
**KRASO® Pump Sump**  
Type Q - sewage -



# KRASO® Pump Sump Type Q - sewage - Low weight, high performance

- + The high-performance solution for sewage containing faeces: the combination of **KRASO® Pump Sump Type Q** and closed pumping system according to DIN 12050-1
- + Suitable for single-family homes, basement flats, sanitation in private basements!
- + Pumping medium: clear water/wastewater containing solids and fibres/sewage
- + Low weight = low transport costs and easy handling without crane on-site!
- + Saves time, working hours, money and additional drainage: no cost-intensive works, no concreting sections for several days and no shuttering!
- + No higher risks occurring by leaking concrete joints and/or pipe connections
- + Made of high-quality, impact resistant, almost indestructible plastic. Special dimensions are available within a few days!
- + Double floor: fixation of the pumping system only necessary in the upper base plate
- + Installation and connection of the pumping system must be done by a plumbing or heating contractor
- + Optionally available:
  - Wedge gate valve (on the water pressure side requested according to DIN)
  - **KRASO® Pump Sump Cover 100/100**
- + DafStB waterproof concrete guideline: stress class 1 + 2

schematic illustration



## KRASO® Pump Sump Type Q - sewage - **LG 2**

for pumping out of sewage containing faeces, suitable for KG, HT and KG 2000 pipes, pumping system (excl. maintenance contract) | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                                      | KRASO® Pump Sump Type Q - sewage -                   |
|---|--|
| Internal dimensions in cm                 | 100 x 100  |
| Internal height in cm                     | 72   |
| DN 110 h internal (axis)                  | 18 (modification of pipe connection height possible) |
| Weight approx. in kg                      | 105  |
| <b>KRASO® Pump Sump Type Q - sewage -</b> | <b>4,698 €</b>                                       |
| Optionally available: wedge gate valve    | <b>627 €</b>   |

**Scope of supply:** KRASO® Pump Sump Type Q - sewage -, pumping system • Optionally available: wedge gate valve

**Special sizes and designs available on request! Modification of pipe connection height possible!**



## KRASO® Pump Sump Poly 400 **LG 2**

for collecting waste water, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, shear key and pipe connection DN 110, suitable for KG, HT and KG 2000 pipes  
 | DafStB waterproof concrete guideline: stress class 1 + 2



| Item  |    | KRASO® Pump Sump Poly 400 / 60 | KRASO® Pump Sump Poly 400 / 80 |
|---|----|--------------------------------|--------------------------------|
| Internal diameter in cm                               |    | 38.2                           | 38.2                           |
| Internal height in cm                                 |    | 60                             | 80                             |
| DN 110  | h1 | 20                             | 20                             |
| DN 110  | h2 |                                | 41                             |
| Weight approx. in kg                                  |    | 17                             | 21                             |
| <b>KRASO® Pump Sump Poly 400</b>                      |    | <b>524 €</b>                   | <b>614 €</b>                   |
| Surcharge: per each 10 cm additional height           |    |                                | 47 €                           |
| Surcharge: for change of the height of the connection |    |                                | 23 €                           |

Special sizes and designs available on request!



## KRASO® Pump Sump Poly 400 - LR **LG 2**

for collecting waste water, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, shear key and pipe connection DN 110 suitable for KG, HT and KG 2000 pipes, water pressure tight empty pipe system with protective cover, pump sump protective cover for the shell construction phase  
 | DafStB waterproof concrete guideline: stress class 1 + 2



| Item                                  |    | KRASO® Pump Sump Poly 400 / 80 - LR | KRASO® Pump Sump Poly 400 / 100 - LR |
|---------------------------------------|----|-------------------------------------|--------------------------------------|
| Internal diameter in cm               |    | 38.2                                | 38.2                                 |
| Internal height in cm                 |    | 80                                  | 100                                  |
| Intake DN 110                         | h1 | 30                                  | 30                                   |
| Empty pipe DN 110                     | h2 | 34                                  | 54                                   |
| Installation weight approx. in kg     |    | 15                                  | 17.5                                 |
| <b>KRASO® Pump Sump Poly 400 - LR</b> |    | <b>841 €</b>                        | <b>866 €</b>                         |

**Scope of supply:** KRASO® Pump Sump Poly 400 - LR with protective cover, pump sump protective cover for the shell construction phase

Special sizes and designs available on request!



## KRASO® Pump Sump Poly 400 - NE - retrofit installation **LG 2**

for retrofit installation into existing base plate with **KRASO® Sealing Insert Type DD 500/400** (see page 19), made of high-quality, dimensionally and pressure stable solid wall material, with surrounding shear key and base for **KRASO® Sealing Insert** (not included in the scope of supply)



| Item   |  | KRASO® Pump Sump Poly 400/60 - NE | KRASO® Pump Sump Poly 400/80 - NE |
|--|--|-----------------------------------|-----------------------------------|
| Internal diameter in cm                            |  | 38.2                              | 38.2                              |
| Internal height in cm                              |  | 60                                | 80                                |
| Weight approx. in kg                               |  | 17                                | 21                                |
| <b>KRASO® Poly 400/60 - NE (excl. accessories)</b> |  | <b>569 €</b>                      | <b>607 €</b>                      |
| Surcharge: per each 10 cm additional height        |  |                                   | 47 €                              |
| <b>KRASO® Sealing Insert Type DD 500/400</b>       |  |                                   | <b>374 €</b>                      |

Special sizes and designs available on request!



## KRASO® Poly - Inspection Shaft **LG 2**

for checking, maintaining and cleaning pipelines, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal** and pre-installed shear key with cleaning opening, for sewage free of faeces, pipe connections DN 110/160 suitable for KG, and KG 2000 pipes | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item                                  | KRASO® Poly - Inspection Shaft 400/80 | KRASO® Poly - Inspection Shaft 500/80 |
|---------------------------------------|---------------------------------------|---------------------------------------|
| Internal diameter in cm               | 38.2                                  | 46.9                                  |
| Internal height in cm                 | 80                                    | 80                                    |
| Intake in cm                          | h1                                    | 77                                    |
| Drain in cm                           | h2                                    | 78                                    |
| Cleaning access pipe                  | DN 110                                | DN 160                                |
| Weight approx. in kg                  | 18                                    | 30                                    |
| <b>KRASO® Poly - Inspection Shaft</b> | <b>702 €</b>                          | <b>1,054 €</b>                        |

**Special sizes and designs available on request! Modification of pipe connection height possible!**



after the building period:  
water pressure tight closure cover with  
**KRASO® Sealing Insert Type Poly 400 - Blind**  
with lifting lugs



## KRASO® Pressure Shaft 400 **LG 2**

for water drainage during the building period, with water pressure tight surrounding, thermally welded **KRASO® 4 Seal**, surrounding shear key, surrounding perforated plate encasement and filter fleece, with base for **KRASO® Sealing Insert Type Poly 400 - Blind** (not included in the scope of supply), water entry in non-installed state: with fleece 60 l/s, without fleece 90 l/s | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASO® Pressure Shaft 400/60 - KG 2000 | KRASO® Pressure Shaft 400/80 - KG 2000 |
|---|--|--|
| Internal diameter in cm                                 | 38.2                                   | 38.2                                   |
| Internal height in cm                                   | 60                                     | 80                                     |
| Perforated plate encasement in cm                       | 20                                     | 20                                     |
| Weight approx. in kg                                    | 15                                     | 17                                     |
| <b>KRASO® Pressure Shaft 400</b><br>(excl. accessories) | <b>681 €</b>                           | <b>763 €</b>                           |
| <b>KRASO® Sealing Insert Type Poly 400 - Blind</b>      | <b>568 €</b>                           |  |

**Special sizes and designs available on request!**



## KRASO® Water Shaft **LG 1**

simple and quick “dry out” of construction sites, with water pressure tight surrounding **KRASO® 4 Seal** and shear key | **DafStB waterproof concrete guideline: stress class 1 + 2**



| Item                      | KRASO® Water Shaft 300/30 |
|---------------------------|---------------------------|
| Internal diameter in cm   | 30                        |
| Internal height in cm     | 30                        |
| Weight approx. in kg      | 5                         |
| <b>KRASO® Water Shaft</b> | <b>132 €</b>              |

**Special sizes and designs available on request!**

# KRASO® Pump Sump Poly 400 Covers



### Poly 400 Cover plastic - walkable -

frame and cover made of plastic, insert frame height-adjustable and rotatable from 2 - 20 cm, edge length 46 cm

### Poly 400 Cover plastic - water and odour-tight - walkable -

frame and cover made of plastic, screwable, insert frame height-adjustable and screwable from 2 - 20 cm, edge length 46 cm

### Poly 400 Cover plastic - fit for traffic - A15

frame and cover made of plastic, insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm

### Poly 400 Cover plastic - water and odour-tight - fit for traffic - A15

frame and cover made of plastic, insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm



### Poly 400 Slot Grate Cover plastic - walkable -

frame and cover made of plastic, drainage capacity approx. 3.9 l/sec., insert frame height-adjustable and rotatable from 2 - 20 cm, edge length 46 cm

### Poly 400 Slot Grate Cover plastic - fit for traffic - A15

frame and cover made of plastic, drainage capacity approx. 4.1 l/sec., insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm

### Poly 400 Cover - fillable - water and odour-tight - fit for traffic - approx. 125 kN

load 125 kN after filling with concrete C35/45, clear width 40 x 40 cm, edge length 53.5 x 53.5 cm, insert frame height-adjustable and rotatable from 4 - 20 cm

## KRASO® Pump Sump Poly 400 - Covers **LG 4**

| Item   |              |
|--|--------------|
| <b>Poly 400 Cover plastic - walkable -</b><br>frame and cover made of plastic, insert frame height-adjustable and rotatable from 2 - 20 cm, edge length 46 cm  | <b>195 €</b> |
| <b>Poly 400 Cover plastic - water and odour-tight - walkable -</b><br>frame and cover made of plastic, screwable, insert frame height-adjustable and rotatable from 2 - 20 cm, edge length 46 cm   | <b>332 €</b> |
| <b>Poly 400 Cover plastic - fit for traffic - A15</b><br>frame and cover made of plastic, screwable, insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm  | <b>340 €</b> |
| <b>Poly 400 Cover plastic - water and odour-tight - fit for traffic - A15</b><br>frame and cover made of plastic, screwable, insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm                              | <b>537 €</b> |
| <b>Poly 400 Slot Grate Cover plastic - walkable -</b><br>frame and cover made of plastic, drainage capacity approx. 3.9 l/sec., insert frame height-adjustable and rotatable from 2 - 20 cm, edge length 46 cm                           | <b>215 €</b> |
| <b>Poly 400 Slot Grate Cover plastic - fit for traffic - A15</b><br>frame and cover made of plastic, drainage capacity approx. 4.1 l/sec., insert frame height-adjustable and rotatable from 8 - 25 cm, edge length 45 cm                | <b>469 €</b> |
| <b>Poly 400 Cover - fillable - water and odour-tight - fit for traffic - approx. 125 kN</b><br>edge length 53 cm, galvanised, loading after filling with concrete C35/45: approx. 125 kN, height-adjustable and rotatable from 4 - 20 cm | <b>518 €</b> |



**KRASOflex®**

# Joint Tapes



## + Construction Joint Tapes

|   |           |
|---|-----------|
| <b>KRASOflex® 155</b>                                 | _____ 140 |
| <b>KRASOflex® Joint Tape Duo-Fix 150 “plus”</b>       | _____ 141 |
| <b>KRASOflex® Construction Joint Wall Element AFW</b> | _____ 144 |
| <b>KRASOflex® Construction Joint Tape A</b>           | _____ 151 |
| <b>KRASOflex® Construction Joint Tape ASI</b>         | _____ 152 |
| <b>KRASOflex® Construction Joint Tape AA</b>          | _____ 153 |

## + Expansion Joint Tapes

|   |           |
|---|-----------|
| <b>KRASOflex® Expansion Joint Tape D</b>  | _____ 155 |
| <b>KRASOflex® Expansion Joint Tape DA</b> | _____ 156 |

## + Star Tubes

|  |           |
|--|-----------|
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| <b>KRASOflex® Star Tube installation set</b> | _____ 143 |
| <b>KRASOflex® Star Tube System</b>           | _____ 143 |

## + Joint Plate ZVB

|  |           |
|--|-----------|
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| <b>KRASOflex® Joint Plate ZVB - Desired Crack Elements</b> | _____ 146 |
| <b>KRASOflex® Formwork Elements</b>                        | _____ 148 |

## + Moulded Parts

|   |           |
|---|-----------|
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| <b>KRASOflex® Joint Tape Constructions for building expansion joints, wall expansion joints and construction joints</b> | _____ 160 |

## + Clamp Constructions

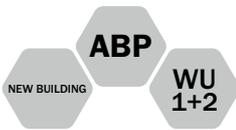
|                                      |           |
|--------------------------------------|-----------|
| <b>KRASOflex® Clamp Joint Tape</b>   | _____ 164 |
| <b>KRASOflex® Clamp Construction</b> | _____ 165 |

## + Swelling Joint Tapes

|  |           |
|--|-----------|
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| <b>KRASOflex® Bentonit Expansion Joint Tape</b>      | _____ 149 |
| <b>KRASOflex® Expansion Joint Tape - Accessories</b> | _____ 149 |

## + Accessories

|  |           |
|--|-----------|
| <b>KRASOflex® 155 – Joint Connector Set</b>                      | _____ 140 |
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| <b>KRASOflex® Sealing Strips</b>                                 | _____ 141 |
| <b>KRASOflex® Joint Plate ZVB - Accessories</b>                  | _____ 147 |
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## KRASOflex® 155

### The joint plate made of plastic

- + As stable as a joint plate – flexible like a joint tape!  
Thanks to the inner plastic core, the **KRASOflex® 155** can easily be bent and adjusted.
- + For installation on the upper reinforcement layer – only 3 cm of integration into the concrete required during the first concreting step. Optimal visual check due to visual control strip in different colour.
- + Including joint connector set for a quick and easy connection of joints.
- + Easy fixation due to punched eyelets.
- + DafStB waterproof concrete guideline: stress class 1 + 2

#### KRASOflex® 155 **LG 4**

| Item                  | KRASOflex® 155          |
|-----------------------|-------------------------|
| Roll length / width   | 25 m / 150 mm           |
| Weight per roll       | approx. 20 kg           |
| <b>KRASOflex® 155</b> | <b>7.70 € per metre</b> |

**Scope of supply:** KRASOflex® 155, joint connector set with joint connector and plastic adhesive, 2 joint clips

#### KRASOflex® 155 - Joint Connector Set **LG 4**

for KRASOflex® 155, for the creation of further joint connections

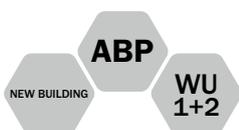
| Item  | KRASOflex® 155 - Joint Connector Set |
|---|--------------------------------------|
| <b>KRASOflex® 155 - Joint Connector Set</b> | <b>9.90 €</b>                        |

**Scope of supply:** KRASOflex® 155 - Joint Connector Set including joint connectors, plastic adhesive and 2 joint clips





**KRASOflex® Joint Tape Duo-Fix 150 "plus"**  
Check the installation video  
(Just scan the QR code!)



## KRASOflex® Joint Tape Duo-Fix 150 "plus"

The technically high-quality construction joint tape

- + Stable like a joint plate – flexible like a joint tape! **KRASOflex® Duo-Fix 150 "plus"** can easily be adapted and bent due to the inner core reinforced with steel.
- + For installation on the upper reinforcement layer – only 3 cm of integration into the concrete required during the first concreting step. Optimal visual control due to visual control strip in different colour.
- + Splicing can be created easily with **KRASOflex® Sealing Strips** on the construction site.
- + Easy fixation due to punched eyelets
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASOflex® Duo-Fix 150 "plus" **LG 4**

| Item                                 | KRASOflex® Duo-Fix 150 "plus" |
|--------------------------------------|-------------------------------|
| Roll length / width                  | 25 m / 150 mm                 |
| Weight per roll                      | approx. 35 kg                 |
| <b>KRASOflex® Duo-Fix 150 "plus"</b> | <b>10.95 € per metre</b>      |

### KRASOflex® Mounting Clamps **LG 4**

for joint tapes and joint plates



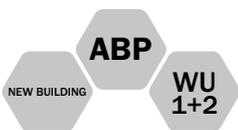
| Item                              | KRASOflex® Mounting Clamps |
|-----------------------------------|----------------------------|
| Packaging unit                    | 100 pcs.                   |
| <b>KRASOflex® Mounting Clamps</b> | <b>0.95 € per pc.</b>      |

### KRASOflex® Sealing Strips **LG 4**

for splicing, self-adhesive



| Item             | KRASOflex® Sealing Strips |
|------------------|---------------------------|
| Roll (2.50 mtr.) | 4.60 € per metre          |



## KRASOflex® Star Tube

### The star tube of the future: tight, stable, sustainable!

- + The **KRASOflex® Star Tube** revolutionises the use of desired crack elements in precast and in-situ concrete walls
- + Simple installation without inner tube:
  - Low weight
  - No more slipping of the inner tube and no more cavities that cannot be filled
  - Sustainable: up to 35% less resource consumption
- + Tight and stable:
  - Rigid and soft in one
  - More stable due to ribbing
  - Stronger anchorage due to fixation of the crack control lip
- + With general building authority test certificate (abP) P-MPA-BS-240049 (tested up to 5 bar; approved for up to 2 bar according to abP)
- + Factory punched every 20 cm: slotted hole for optionally available mounting system
- + Factory slotted: 15 x 50 mm. For installation on joint tape or joint plate
- + DafStB waterproof concrete guideline: stress class 1 + 2



### KRASOflex® Star Tube **LG 4**

for placement on joint tape or joint plate, universally usable for joint or corner areas of wall elements  
| DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASOflex® Star Tube |         |         |         |         |         |
|--|----------------------|---------|---------|---------|---------|---------|
|  | 2.50                 | 2.75    | 3.00    | 3.50*** | 4.00*** | 5.00*** |
| <b>KRASOflex® Star Tube K6*</b> (wall thickness ≤ 240 mm**)        | 41.75 €              | 45.90 € | 50.10 € | 58.45 € | 66.80 € | 83.50 € |
| <b>KRASOflex® Star Tube K9*</b> (wall thickness ≤ 350 mm**)        | 48.00 €              | 52.80 € | 57.60 € | 67.20 € | 76.80 € | 96 €    |
| <b>KRASOflex® Star Tube K18*</b> (wall thickness ≤ 350 - 500 mm**) | 120 €                | -       | 144 €   | -       | 192 €   | 240 €   |

\* Price per piece \*\* Element walls: in-situ concrete core = wall thickness \*\*\* Freight costs on request

Further lengths available on request!

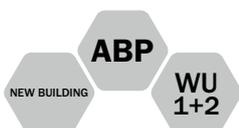
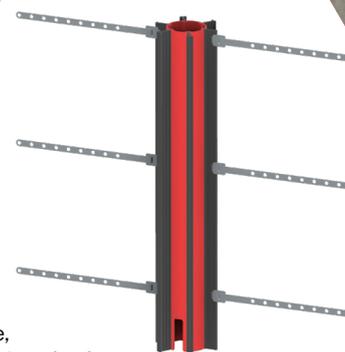


### KRASOflex® Star Tube - installation set **LG 4**

for a simple installation of **KRASOflex® Star Tubes** in precast and in-situ concrete walls, with mounting tape, anchor nails 6 x 40 mm, round head screw, 6 mm SDS drill | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item                                    | KRASOflex® Star Tube - installation set |
|---|---|
| KRASOflex® Star Tube - installation set | 89 €                                    |

**Scope of supply:** KRASOflex® Star Tube - installation set, including 100 pcs. KRASOflex® Mounting Tape, 100 pcs. anchor nails 6 x 40 mm, round head screw, 1 pc. 6 mm SDS drill



### KRASOflex® Star Tube System **LG 4**

universally usable for joint or corner areas of wall elements | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASOflex® Star Tube System |       |       |         |         |         |
|--|-----------------------------|-------|-------|---------|---------|---------|
| Length in metres   | 2.50                        | 2.75  | 3.00  | 3.50*** | 4.00*** | 5.00*** |
| KRASOflex® Star Tube System K6* (wall thickness ≤ 240 mm**)        | 86 €                        | 92 €  | 95 €  | 107 €   | 120 €   | 146 €   |
| KRASOflex® Star Tube System K9* (wall thickness ≤ 350 mm**)        | 108 €                       | 116 € | 121 € | 135 €   | 148 €   | 179 €   |
| KRASOflex® Star Tube System K18* (wall thickness ≤ 350 - 500 mm**) | 183 €                       | -     | 207 € | -       | 255 €   | 303 €   |

\* Price per piece \*\* Element walls: in-situ concrete core = wall thickness \*\*\* Freight costs on request

**Scope of supply:** KRASOflex® Star Tube System incl. 50 cm fixing bracket and 2 pcs. KRASOflex® Mounting Clamps for easy fixation  
**Further lengths available on request!**



JOINT TAPES



**KRASOflex® AFW** **LG 4**

construction joint wall element for vertical construction joints in the wall/wall joint area | DafStB waterproof concrete guideline: stress class 1 + 2

| Item                      | KRASOflex® AFW |             |             |             |             |             |              |
|---------------------------|----------------|-------------|-------------|-------------|-------------|-------------|--------------|
| Length in metres          | 2.50           | 2.75        | 3.00        | 3.50        | 4.00        | 4.50        | 5.00         |
| <b>KRASOflex® AFW 150</b> | <b>70 €</b>    | <b>74 €</b> | <b>78 €</b> | <b>83 €</b> | <b>89 €</b> | <b>96 €</b> | <b>102 €</b> |
| <b>KRASOflex® AFW 155</b> | <b>63 €</b>    | <b>67 €</b> | <b>70 €</b> | <b>75 €</b> | <b>80 €</b> | <b>86 €</b> | <b>92 €</b>  |

Scope of supply: KRASOflex® AFW incl. 40 cm fixing bracket and 2 pcs. KRASOflex® Mounting Clamps for easy fixation

**Further lengths available on request!**



JOINT TAPES

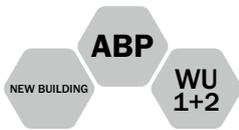


**Creating and ensuring quality**

**KRASO® is a member of DBV e. V.**

- + In the German Concrete and Construction Technology Association (DBV e. V.), together with more than 500 members from the German construction industry we actively engage in further development, scientific research and overall issues relating to construction technology and concrete construction.
- + We are thus part of a platform that is committed to sustainable and resource conserving construction in its core competence concrete construction.

## Cement-composite joint plate with mineral special coating



## KRASOflex® Joint Plate ZVB Cement-composite joint plate with mineral special coating

- + For the sealing of construction joints and controlled crack joints
- + Active-mineral special coating: active and composite sealing combined in one joint plate!
- + System solutions for in-situ concrete and precast walls
- + No sticking, no protection foil and therefore less waste on the construction site!
- + Drinking water approval – tested according to DVGW working sheet W 347 and 270
- + Installation independent of weather and season!
- + Integration into the concrete: 3 cm
- + With general building authority test certificate (abP) P - 14484/24-742 (tested up to 5 bar; approved for up to 2 bar according to abP)
- + DafStB waterproof concrete guideline: stress class 1 + 2

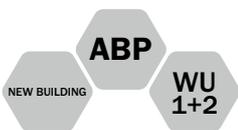
Also available for agricultural systems!

### KRASOflex® Joint Plate ZVB **LG 4**

for the sealing of construction joints and controlled crack joints, incl. KRASOflex® ZVB – Joint Clips for securing overlapping joints | DafStB waterproof concrete guideline: stress class 1 + 2

| Item   | KRASOflex® Joint Plate ZVB 100 | KRASOflex® Joint Plate ZVB 150 |
|--|--------------------------------|--------------------------------|
| Height in mm   | 100                            | 150                            |
| Length in mm   | 2,000                          | 2,000                          |
| Packing Unit   | 100 metres / box               | 100 metres / box               |
| <b>KRASOflex® Joint Plate ZVB</b>                          | <b>7.30 € per metre</b>        | <b>7.80 € per metre</b>        |
| <b>KRASOflex® Joint Plate ZVB for agricultural systems</b> | -                              | <b>12.80 € per metre</b>       |

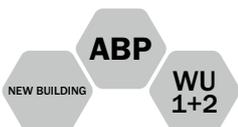
Scope of supply: KRASOflex® Joint Plate ZVB, KRASOflex® ZVB - Joint Clips (100 pcs./box), KRASOflex® ZVB for industrial and agricultural systems - Joint Clips (100 pcs./box)



## KRASOflex® Joint Plate ZVB - Desired Crack Elements

### Cement-composite joint plate for precast walls and in-situ concrete walls

- + For the controlled production and simultaneous sealing of desired crack elements
- + With general building authority test certificate (abP) P - 14484/24-742 (tested up to 5 bar; approved for up to 2 bar according to abP)
- + DafStB waterproof concrete guideline: stress class 1 + 2



### KRASOflex® Joint Plate ZVB - Desired Crack Elements FTW (precast walls) - butt joint **LG 4**

with mineral coating on both sides, for the controlled production and simultaneous sealing of desired crack elements in precast walls, against pressing and non pressing water as well as soil moisture | DafStB waterproof concrete guideline: stress class 1 + 2

| Item  | KRASOflex® ZVB - Desired Crack Element FTW - butt joint |                |                |                 |                |                 |
|---|---|----------------|----------------|-----------------|----------------|-----------------|
| Wall thickness in mm  | 240 - 280   | 240 - 280      | 290 - 340      | 290 - 340       | 350 - 400      | 350 - 400       |
| Length of element in mm   | 2,500   | 3,000          | 2,500          | 3,000           | 2,500          | 3,000           |
| Joint plate width in mm   | 150   | 150            | 150            | 150             | 150            | 150             |
| Number of knock-in anchors                                      | 3 pieces  | 4 pieces       | 3 pieces       | 4 pieces        | 3 pieces       | 4 pieces        |
| <b>KRASOflex® ZVB - Desired Crack Element FTW - butt joint*</b> | <b>79.80 €</b>  | <b>95.80 €</b> | <b>83.80 €</b> | <b>100.60 €</b> | <b>91.40 €</b> | <b>109.70 €</b> |

\* Price per piece

**Scope of supply:** KRASOflex® Joint Plate ZVB - Desired Crack Element FTW - butt joint, knock-in anchors, 2 pieces KRASOflex® ZVB - Joint Clips  
**Further dimensions and designs available on request!**



## KRASOflex® Joint Plate ZVB - Desired Crack Elements FTW (precast walls) - corner joint **LG 4**

with mineral coating on both sides, for the controlled production and simultaneous sealing of desired crack elements in precast walls, against pressing and non pressing water as well as soil moisture | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item  | KRASOflex® ZVB - Desired Crack Element FTW - corner joint |                 |                |                 |                |                 |
|---|---|-----------------|----------------|-----------------|----------------|-----------------|
| Wall thickness in mm  | 240 - 280   | 240 - 280       | 290 - 340      | 290 - 340       | 350 - 400      | 350 - 400       |
| Length of element in mm   | 2,500   | 3,000           | 2,500          | 3,000           | 2,500          | 3,000           |
| Joint plate width in mm   | 150   | 150             | 150            | 150             | 150            | 150             |
| Number of knock-in anchors  | 3 pieces  | 4 pieces        | 3 pieces       | 4 pieces        | 3 pieces       | 4 pieces        |
| <b>KRASOflex® ZVB - Desired Crack Element FTW - corner joint*</b> | <b>83.90 €</b>  | <b>100.70 €</b> | <b>88.10 €</b> | <b>105.80 €</b> | <b>95.25 €</b> | <b>114.30 €</b> |

\*Price per piece

**Scope of supply:** KRASOflex® Joint Plate ZVB - Desired Crack Elements FTW – corner joint, knock-in anchors, 2 pieces KRASOflex® ZVB - Joint Clips

**Further dimensions and designs available on request!**



## KRASOflex® Joint Plate ZVB - Desired Crack Elements OBW (in-situ concrete walls) **LG 4**

with mineral coating on both sides, for the controlled production and simultaneous sealing of desired crack elements in in-situ concrete walls, against pressing and non pressing water as well as soil moisture | **DafStB waterproof concrete guideline: stress class 1 + 2**

| Item   | KRASOflex® ZVB - Desired Crack Element OBW |                 |                 |                 |
|--|--|-----------------|-----------------|-----------------|
| Installation dimension in mm                       | 140  | 140             | 180             | 180             |
| Length of element in mm                            | 2,500                                      | 3,000           | 2,500           | 3,000           |
| Joint plate width in mm                            | 150  | 150             | 150             | 150             |
| <b>KRASOflex® ZVB - Desired Crack Element OBW*</b> | <b>91.20 €</b>                             | <b>109.50 €</b> | <b>104.20 €</b> | <b>125.00 €</b> |

\*Price per piece

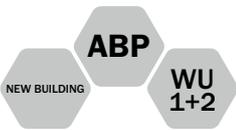
**Scope of supply:** KRASOflex® Joint Plate ZVB - Desired Crack Element OBW, 2 pcs. KRASOflex® ZVB - Joint Clips

**Further dimensions and designs available on request!**



## KRASOflex® Joint Plate ZVB - Accessories **LG 4**

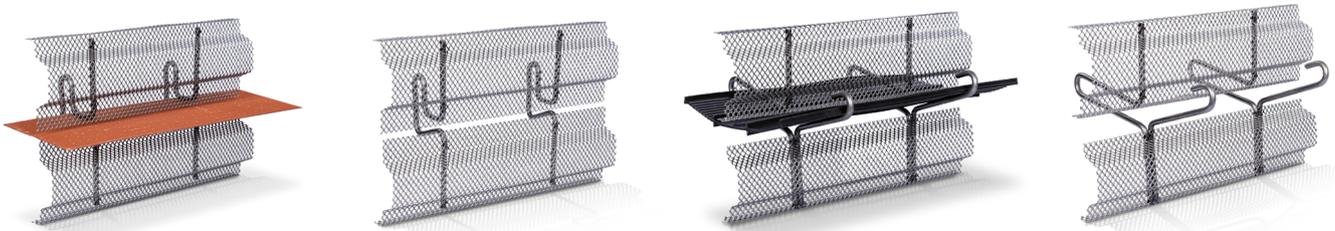
| Item                                | KRASOflex® ZVB - Joint Clip                                       | KRASOflex® ZVB - Mounting Clamp 100  | KRASOflex® Mounting Clamp  | KRASOflex® ZVB - Corner 150   | KRASOflex® ZVB - Clamping plate 150  |
|-------------------------------------|---|--|--|---|--|
| Feature                             | Fixing clip for overlapping joints of KRASOflex® Joint Plates ZVB | For the safe fixation of KRASOflex® Joint Plate ZVB 100 as connection of wall/ceiling area | For the safe fixation of KRASOflex® Joint Plate ZVB 150 on the upper reinforcement layer | For the professional connection of KRASOflex® Joint Plate ZVB 150 - desired crack elements FTW-corner joints in the sole area | For the connection of KRASOflex® Joint Plate ZVB 150 to expansion and construction joint tapes |
| Packing unit                        | 50 pcs. / bag   | 100 pcs. / bag   | 100 pcs. / bag   | 1 piece incl. 2 pcs. KRASOflex® ZVB - Joint Clips   | 1 piece incl. 2 pcs. KRASOflex® ZVB - Joint Clips  |
| <b>KRASOflex® ZVB - Accessories</b> | <b>19.00 € per bag</b>  | <b>1.20 € per piece</b>  | <b>0.95 € per piece</b>  | <b>18.50 € per piece</b>  | <b>24.80 € per piece</b>   |



## KRASOflex® Formwork Elements

### Sealing and formwork in the base, wall and roof area

- + Simultaneously shutter horizontal and vertical construction joints and make them watertight by installing the **KRASOflex® Joint Plate ZVB** or **KRASOflex® Construction and Expansion Joint Tape**



#### KRASOflex® Formwork Element ABS-R (rough)

Joint type: rough

#### KRASOflex® Formwork Element ABS-R-V (rough, reinforced)

Joint type: rough  
Design: reinforced

#### KRASOflex® Formwork Element ABS-V (interlocked)

Joint type: interlocked according to EC2

#### KRASOflex® Formwork Element ABS-V-V (interlocked, reinforced)

Joint type: interlocked according to EC2  
Design: reinforced

Available in all standard sizes and in special designs! Prices on request! KRASOflex® Upstand Elements and moulds for the formwork on request! Also available for KRASOflex® Construction and Expansion Joint Tapes on request!

# KRASOflex® Swelling Joint Tapes

## For the sealing of internal construction joints

### KRASOflex® Swelling Rubber

- + For the sealing of construction joints in concrete elements: segment construction, element construction and pipe jacking!
- + Joint sealing profile, “dimensionally stable” swelling when in contact with water!
- + With general building authority test certificate (abP) P-MPA-BS-240022
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASOflex® Bentonit Expansion Joint Tape

- + For the sealing of internal construction joints in in-situ concrete elements: against permanent or temporary exposure by ground, slope and surface water
- + Strong, quick and reliable swelling reaction in contact with water. Suitable for water exchange zones!
- + With general building authority test certificate (abP) P-MPA-BS-240020
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASOflex® Bentonit Expansion Joint Tape RS

- + With rain protection coating: prevents early and uncontrolled swelling due to rain
- + With general building authority test certificate (abP) P-MPA-BS-240021
- + DafStB waterproof concrete guideline: stress class 1 + 2

Further dimensions and designs on request!

### KRASOflex® Swelling Rubber **LG 4**

for the internal sealing of construction joints in concrete elements  
| DafStB waterproof concrete guideline: stress class 1 + 2



| Item                              | KRASOflex® Swelling Rubber |
|-----------------------------------|----------------------------|
| Dimension in mm                   | 20 x 5                     |
| Packing unit                      | 12 metres per roll         |
| <b>KRASOflex® Swelling Rubber</b> | <b>8.10 € per metre</b>    |

### KRASOflex® Bentonit Expansion Joint Tape **LG 4**

for the sealing of internal construction joints in in-situ concrete elements  
| DafStB waterproof concrete guideline: stress class 1 + 2



| Item  | KRASOflex® Bentonit Expansion Joint Tape |
|---|--|
| Dimension in mm                                 | 20 x 25                                  |
| Concrete cover                                  | min. 80 mm                               |
| Packing unit                                    | 6 rolls with 5 metres each               |
| <b>KRASOflex® Bentonit Expansion Joint Tape</b> | <b>7.20 € per metre</b>                  |

### KRASOflex® Bentonit Expansion Joint Tape RS **LG 4**

for the sealing of internal construction joints in in-situ concrete elements, with rain protection coating  
| DafStB waterproof concrete guideline: stress class 1 + 2

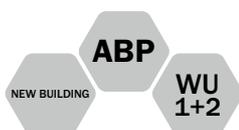


| Item   | KRASOflex® Bentonit Expansion Joint Tape RS |
|--|---|
| Dimension in mm                                    | 18 x 24                                     |
| Concrete cover                                     | min. 80 mm                                  |
| Packing unit                                       | 6 rolls with 5 metres each                  |
| <b>KRASOflex® Bentonit Expansion Joint Tape RS</b> | <b>8.50 € per metre</b>                     |

### KRASOflex® Swelling Joint Tapes - Accessories **LG 4**



| Type / Item  | KRASOflex® Swelling Tape Grid 20 x 25 | KRASOflex® Mounting adhesive |
|--|---------------------------------------|------------------------------|
| Length / quantity                                    | 1 m                                   | Cartridge à 290 ml           |
| <b>KRASOflex® Swelling Joint Tapes - Accessories</b> | <b>2.10 €</b>                         | <b>18.50 €</b>               |



## KRASOflex® Construction Joint Tapes

According to factory standard, DIN 18541 or DIN 18541 BV

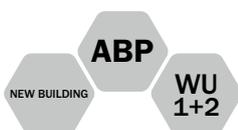
- + **Factory standard with general building authority test certificate (abP):**  
Joint tapes in factory standard quality are made on the basis of PVC-P (“soft PVC“). They are perfectly suited for use in waterproof concrete structures with normal exposure. Characterised by their excellent workability, weldability and durability, they offer a great price-performance-ratio.
- + **DIN 18541:**  
Joint tapes of this quality level meet the requirements of the German Industry Standard for thermoplastic joint tapes for sealing joints in concrete. Based on the material PVC-P, a special composition achieves a particular high quality in terms of elasticity, breaking extension and tensile strength. Joint tapes of this quality level are required for construction projects with very high loads.
- + **DIN 18541 BV:**  
Joint tapes of DIN 18541 quality are also optionally available in a bitumen-compatible (BV) version.

### KRASOflex® Constructions Joint Tapes A and AA

material properties acc. to DIN 18541-2

| Characteristic values  | Requirements     | Specification                                      |
|--|------------------|--|
| Tensile strength   | ≥ 10 MPa         | DIN EN ISO 527                                     |
| Elongation at break  | ≥ 350 %          | DIN EN ISO 527                                     |
| Cold behaviour: elongation at break at -20 °C  | ≥ 200 %          | DIN EN ISO 527                                     |
| Shore A hardness   | 67 ± 5           | DIN EN ISO 868                                     |
| Tear propagation resistance  | ≥ 12 kN/m        | DIN ISO 34-1                                       |
| Behaviour of the joint during the tensile test<br>Short-term joining factor fz   | ≥ 0.6            | DIN EN ISO 527                                     |
| Fire behaviour   | class E          | DIN EN 13501-1                                     |
| Behaviour after storage in bitumen <sup>1</sup><br>- Tensile strength - elongation at break<br>· Tensile strength<br>· Elongation at break | < 20 %<br>< 20 % | DIN EN 13304<br>DIN EN ISO 527-2<br>DIN EN ISO 291 |

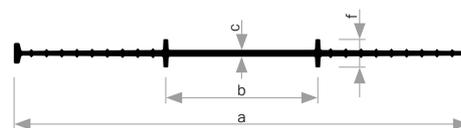
<sup>1</sup> Joint tapes compatible with bitumen (BV)



## KRASOflex® Construction Joint Tape A

**KRASOflex® Construction Joint Tape A**, internal, made of thermoplastic, for the sealing of horizontal and vertical construction joint tapes in waterproof concrete buildings. Material properties and profile geometries of the joint tapes meet the requirements according to DIN 18541 and may therefore be used with pressing and non-pressing water, as well as with floor moisture in accordance with DIN 18197. Available on request as a bitumen-compatible design.

| Type  | a (mm) | b (mm) | c (mm) | f (mm) |
|-------|--------|--------|--------|--------|
| A 80  | 80     | 40     | 3.5    | 15     |
| A 120 | 120    | 50     | 3.5    | 15     |
| A 150 | 150    | 50     | 3.5    | 15     |
| A 200 | 200    | 80     | 3.5    | 15     |
| A 240 | 240    | 80     | 3.5    | 15     |
| A 320 | 320    | 120    | 4.5    | 15     |

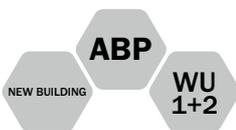
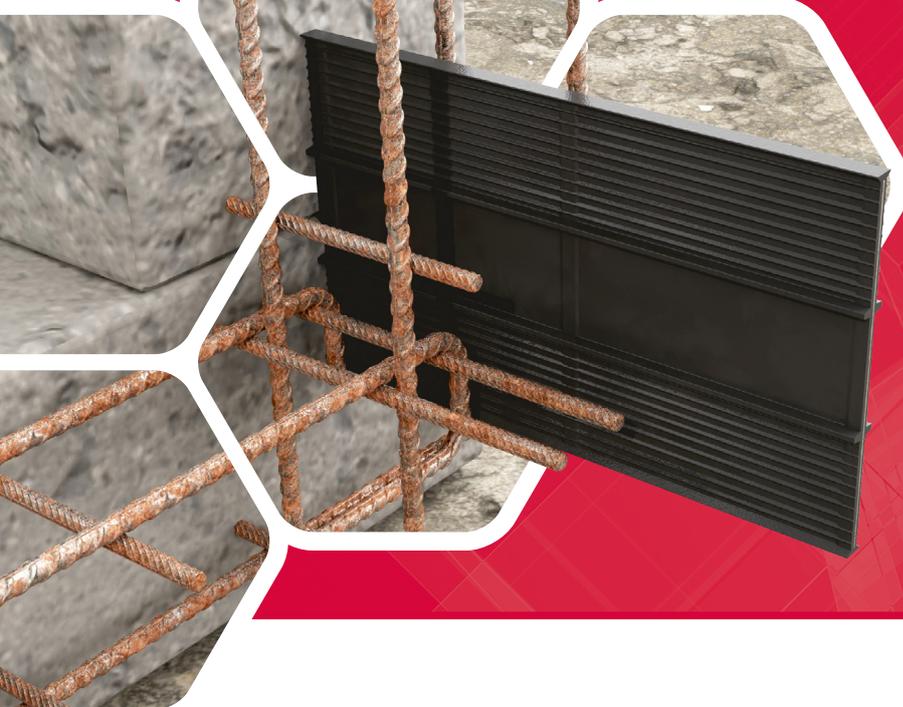


Profile geometries

### KRASOflex® Construction Joint Tape A **LG 4**

internal construction joint tape

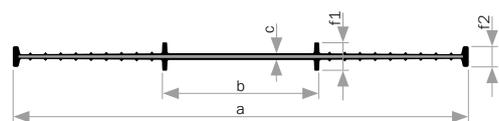
| Item  | KRASOflex® A 80            | KRASOflex® A 120           | KRASOflex® A 150           | KRASOflex® A 200           | KRASOflex® A 240            | KRASOflex® A 320            |
|---|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Profile width in mm   | 80                         | 120                        | 150                        | 200                        | 240                         | 320                         |
| Roll length in metres   | 25                         | 25                         | 25                         | 25                         | 25                          | 25                          |
| <b>KRASOflex® Joint Tape A</b><br>(factory standard with abP) | <b>3.50 €</b><br>per metre | <b>4.00 €</b><br>per metre | <b>5.00 €</b><br>per metre | <b>5.40 €</b><br>per metre | <b>7.00 €</b><br>per metre  | <b>10.90 €</b><br>per metre |
| <b>KRASOflex® Joint Tape A</b><br>(according to DIN 18541)    | -                          | -                          | -                          | -                          | <b>10.10 €</b><br>per metre | <b>15.00 €</b><br>per metre |
| <b>KRASOflex® Joint Tape A</b><br>(according to DIN 18541 BV) | -                          | -                          | -                          | -                          | <b>13.20 €</b><br>per metre | <b>19.00 €</b><br>per metre |



## KRASOflex® Construction Joint Tape ASI

**KRASOflex® Construction Joint Tape A**, internal, made of thermoplastic, inside stabilised, for the sealing of horizontal and vertical construction joint tapes in waterproof concrete buildings. Material properties and profile geometries meet the requirements according to **KRASOflex®** factory standard. For use with pressing and non-pressing water, as well as with floor moisture in accordance with general building authority test certificate (abP). Meets the fire performance requirements of class E of the DIN EN 13501-1.

| Type    | a (mm) | b (mm) | c (mm) | f1 (mm) | f2 (mm) |
|---------|--------|--------|--------|---------|---------|
| ASI 80  | 80     | 40     | 3.5    | 15      | 11      |
| ASI 120 | 120    | 50     | 3.5    | 15      | 11      |
| ASI 150 | 150    | 50     | 3.5    | 15      | 11      |
| ASI 200 | 200    | 80     | 3.5    | 15      | 11      |
| ASI 240 | 240    | 80     | 3.5    | 15      | 11      |
| ASI 320 | 320    | 120    | 4.5    | 15      | 11      |

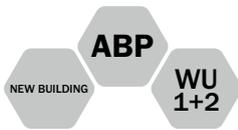


Profile geometries

### KRASOflex® Construction Joint Tape ASI **LG 4**

internal construction joint tape, inside stabilised (factory standard)

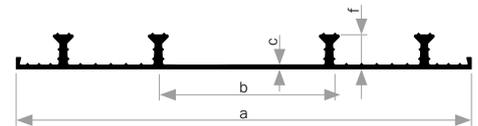
| Item                             | KRASOflex®<br>ASI 80       | KRASOflex®<br>ASI 120      | KRASOflex®<br>ASI 150      | KRASOflex®<br>ASI 200      | KRASOflex®<br>ASI 240       | KRASOflex®<br>ASI 320       |
|----------------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------------|-----------------------------|
| Profile width in mm              | 80                         | 120                        | 150                        | 200                        | 240                         | 320                         |
| Roll length in metres            | 25                         | 25                         | 25                         | 25                         | 25                          | 25                          |
| <b>KRASOflex® Joint Tape ASI</b> | <b>4.40 €</b><br>per metre | <b>5.70 €</b><br>per metre | <b>6.00 €</b><br>per metre | <b>8.00 €</b><br>per metre | <b>10.00 €</b><br>per metre | <b>12.10 €</b><br>per metre |



## KRASOflex® Construction Joint Tape AA

**KRASOflex® Construction Joint Tape AA**, external, made of thermoplastic, for the sealing of horizontal and vertical construction joint tapes in waterproof concrete buildings. Material properties and profile geometries of the joint tapes meet the requirements according to DIN 18541 and may therefore be used with pressing and non-pressing water, as well as with floor moisture in accordance with DIN 18197.

| Type      | a (mm) | b (mm) | c (mm)   | f (mm) | Number of locking anchors |
|-----------|--------|--------|----------|--------|---------------------------|
| AA 240/20 | 240    | 90     | 4        | 20     | 4                         |
| AA 240/35 | 240    | 90     | 4        | 35     | 4                         |
| AA 320/25 | 320    | 100    | 4        | 25     | 6                         |
| AA 320/35 | 320    | 100    | 4 <td 35 | 6      |                           |
| AA 500/35 | 500    | 120    | 4        | 35     | 8                         |

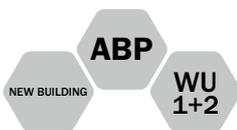


Profile geometries

### KRASOflex® Construction Joint Tape AA **LG 4**

external construction joint tape, available in factory standard with abP, DIN 18541 and DIN 18541 BV

| Item   | KRASOflex® Joint Tape AA 240 | KRASOflex® Joint Tape AA 320 | KRASOflex® Joint Tape AA 500 |
|--|------------------------------|------------------------------|------------------------------|
| Profile width in mm  | 240                          | 320                          | 500                          |
| Standard anchor height in mm   | 20                           | 25                           | 35                           |
| Roll length in metres  | 25                           | 25                           | 20                           |
| <b>KRASOflex® Joint Tape AA</b><br>(factory standard with abP)               | 10.80 € per metre            | 14.20 € per metre            | -                            |
| <b>KRASOflex® Joint Tape AA</b><br>(factory standard with abP, 35 mm anchor) | 14.40 € per metre            | 20.60 € per metre            | 31.30 € per metre            |
| <b>KRASOflex® Joint Tape AA</b><br>(according to DIN 18541)                  | 14.40 € per metre            | 19.40 € per metre            | -                            |
| <b>KRASOflex® Joint Tape AA</b><br>(35 mm anchor, according to DIN 18541)    | 21.20 € per metre            | 28.10 € per metre            | 54.00 € per metre            |
| <b>KRASOflex® Joint Tape AA</b><br>(according to DIN 18541 BV)               | 18.40 € per metre            | 28.60 € per metre            | -                            |
| <b>KRASOflex® Joint Tape AA</b><br>(35 mm anchor, according to DIN 18541 BV) | 25.60 € per metre            | 35.00 € per metre            | 67.50 € per metre            |



## KRASOflex® Expansion Joint Tapes

According to factory standard, DIN 18541 or DIN 18541 BV

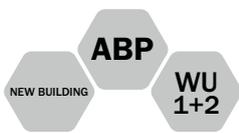
- + **Factory standard with general building authority test certificate (abP):**  
Joint tapes in factory standard quality are made on the basis of PVC-P ("soft PVC"). They are perfectly suited for use in waterproof concrete structures with normal exposure. Characterised by their excellent workability, weldability and durability, they offer a great price-performance-ratio.
- + **DIN 18541:**  
Joint tapes of this quality level meet the requirements of the German Industry Standard for thermoplastic joint tapes for sealing joints in concrete. Based on the material PVC-P, a special composition achieves a particular high quality in terms of elasticity, breaking extension and tensile strength. Joint tapes of this quality level are required for construction projects with very high loads.
- + **DIN 18541 BV:**  
Joint tapes of DIN 18541 quality are also optionally available in a bitumen-compatible (BV) version.

### KRASOflex® Expansion Joint Tapes D and DA

material properties acc. to DIN 18541-2

| Material properties according to DIN 18541-2   |                  |  |
|--|------------------|--|
| Characteristic values  | Requirements     | Specification                                      |
| Tensile strength   | ≥ 10 MPa         | DIN EN ISO 527                                     |
| Elongation at break  | ≥ 350 %          | DIN EN ISO 527                                     |
| Cold behaviour: elongation at break at -20 °C  | ≥ 200 %          | DIN EN ISO 527                                     |
| Shore A hardness A   | 67 ± 5           | DIN EN ISO 868                                     |
| Tear propagation resistance  | ≥ 12 kN/m        | DIN ISO 34-1                                       |
| Behaviour of the joint during the tensile test<br>Short-term joining factor fz   | ≥ 0.6            | DIN EN ISO 527                                     |
| Fire behaviour   | class E          | DIN EN 13501-1                                     |
| Behaviour after storage in bitumen <sup>1</sup><br>- Tensile strength - elongation at break<br>· Tensile strength<br>· Elongation at break | < 20 %<br>< 20 % | DIN EN 13304<br>DIN EN ISO 527-2<br>DIN EN ISO 291 |

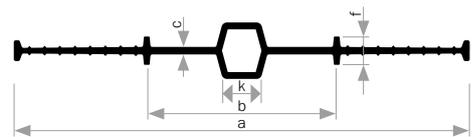
<sup>1</sup> Joint tapes compatible with bitumen (BV)



## KRASOflex® Expansion Joint Tape D

**KRASOflex® Expansion Joint Tape D** made of thermoplastic, internal, for the sealing of horizontal and vertical expansion joints in waterproof concrete buildings. Material properties and profile geometries of the joint tapes meet the requirements according to DIN 18541 and may therefore be used with pressing and non-pressing water, as well as with floor moisture in accordance with DIN 18197. Available on request as a bitumen-compatible design.

| Type  | a (mm) | b (mm) | c (mm) | k (mm) | f (mm) |
|-------|--------|--------|--------|--------|--------|
| D 240 | 240    | 90     | 4      | 20     | 15     |
| D 320 | 320    | 110    | 5      | 20     | 15     |
| D 500 | 500    | 150    | 6      | 20     | 18     |

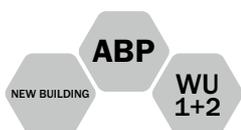


Profile geometries

### KRASOflex® Expansion Joint Tape D **LG 4**

internal expansion joint tape, available in factory standard with abP, DIN 18541 and DIN 18541 BV

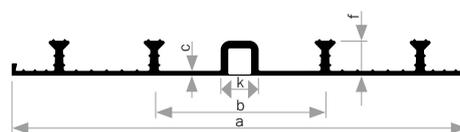
| Item   | KRASOflex® Joint Tape D 240 | KRASOflex® Joint Tape D 320 | KRASOflex® Joint Tape D 500 |
|--|-----------------------------|-----------------------------|-----------------------------|
| Profile width in mm  | 240                         | 320                         | 500                         |
| Roll length in metres                                      | 25                          | 25                          | 20                          |
| <b>KRASOflex® Joint Tape D</b> (factory standard with abP) | <b>10.40 € per metre</b>    | <b>16.10 € per metre</b>    | <b>34.00 € per metre</b>    |
| <b>KRASOflex® Joint Tape D</b> (acc. to DIN 18541)         | <b>13.80 € per metre</b>    | <b>19.90 € per metre</b>    | <b>44.30 € per metre</b>    |
| <b>KRASOflex® Joint Tape D</b> (acc. to DIN 18541 BV)      | <b>17.30 € per metre</b>    | <b>25.20 € per metre</b>    | <b>66.30 € per metre</b>    |



## KRASOflex® Expansion Joint Tape DA

**KRASOflex® Expansion Joint Tape DA** made of thermoplastic, external, for the sealing of horizontal and vertical expansion joint tapes in waterproof concrete buildings. Material properties and profile geometries of the joint tapes meet the requirements according to DIN 18541 and may therefore be used with pressing and non-pressing water, as well as with floor moisture in accordance with DIN 18197. Available on request as a bitumen-compatible design.

| Type      | a (mm) | b (mm) | c (mm) | f (mm) | k (mm) | Number of locking anchors |
|-----------|--------|--------|--------|--------|--------|---------------------------|
| DA 240/20 | 240    | 90     | 4      | 20     | 20     | 4                         |
| DA 240/35 | 240    | 90     | 4      | 35     | 20     | 4                         |
| DA 320/25 | 320    | 100    | 4      | 25     | 20     | 6                         |
| DA 320/35 | 320    | 100    | 4      | 35     | 20     | 6                         |
| DA 500/35 | 500    | 120    | 4      | 35     | 20     | 8                         |



Profile geometries

## KRASOflex® Expansion Joint Tape DA **LG 4**

external expansion joint tape, available in factory standard with abP, DIN 18541 and DIN 18541 BV

| Item   | KRASOflex® Joint Tape DA 240 | KRASOflex® Joint Tape DA 320 | KRASOflex® Joint Tape DA 500 |
|--|------------------------------|------------------------------|------------------------------|
| Profile width in mm  | 240                          | 320                          | 500                          |
| Standard anchor height in mm   | 20                           | 25                           | 25                           |
| Roll length in metres  | 25                           | 25                           | 20                           |
| <b>KRASOflex® Joint Tape DA</b><br>(factory standard with abP)               | 13.40 € per metre            | 18.60 € per metre            | -                            |
| <b>KRASOflex® Joint Tape DA</b><br>(factory standard with abP, 35 mm anchor) | 19.20 € per metre            | 23.20 € per metre            | 34.90 € per metre            |
| <b>KRASOflex® Joint Tape DA</b><br>(acc. to DIN 18541)                       | 17.00 € per metre            | 24.60 € per metre            | -                            |
| <b>KRASOflex® Joint Tape DA</b><br>(35 mm anchor, acc. to DIN 18541)         | 24.30 € per metre            | 29.00 € per metre            | 45.80 € per metre            |
| <b>KRASOflex® Joint Tape DA</b><br>(acc. to DIN 18541 BV)                    | 21.50 € per metre            | 29.50 € per metre            | -                            |
| <b>KRASOflex® Joint Tape DA</b><br>(35 mm anchor, acc. to DIN 18541 BV)      | 29.20 € per metre            | 34.90 € per metre            | 67.80 € per metre            |



# KRASOflex® Joint Tapes

In construction site practice

JOINT TAPES

# KRASOflex® Moulded Parts

According to factory standard and DIN 18541

## KRASOflex®

### Construction Joint Tape A

internal construction joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Construction Joint Tape ASI

internal construction joint tape,  
inside stabilised (factory standard)



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat

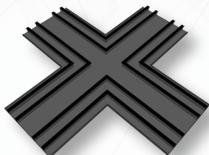


Moulded part 3  
Flat corner

## KRASOflex®

### Construction Joint Tape AA 240

external construction joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Construction Joint Tape AA 320

external construction joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Construction Joint Tape AA 500

external construction joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Expansion Joint Tape D

internal expansion joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Expansion Joint Tape DA 240

external expansion joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Expansion Joint Tape DA 320

external expansion joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner

## KRASOflex®

### Expansion Joint Tape DA 500

external expansion joint tape



Moulded part 1  
Crossing flat



Moulded part 2  
T-joint flat



Moulded part 3  
Flat corner



**Moulded part 4**  
Vertical crossing



**Moulded part 5**  
T-joint vertical



**Moulded part 6**  
Vertical corner



**Moulded part 7**  
Butt joint



**Moulded part 4**  
Vertical crossing



**Moulded part 5**  
T-joint vertical



**Moulded part 6**  
Vertical corner



**Moulded part 7**  
Butt joint



**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



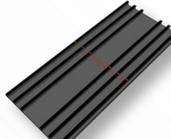
**Moulded part 7**  
Butt joint



**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



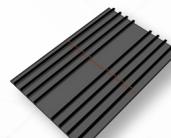
**Moulded part 7**  
Butt joint



**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



**Moulded part 7**  
Butt joint



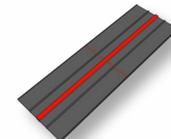
**Moulded part 4**  
Vertical crossing



**Moulded part 5**  
T-joint vertical



**Moulded part 6**  
Vertical corner



**Moulded part 7**  
Butt joint



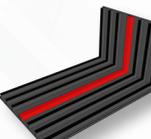
**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



**Moulded part 7**  
Butt joint



**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



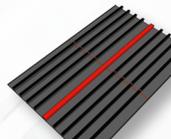
**Moulded part 7**  
Butt joint



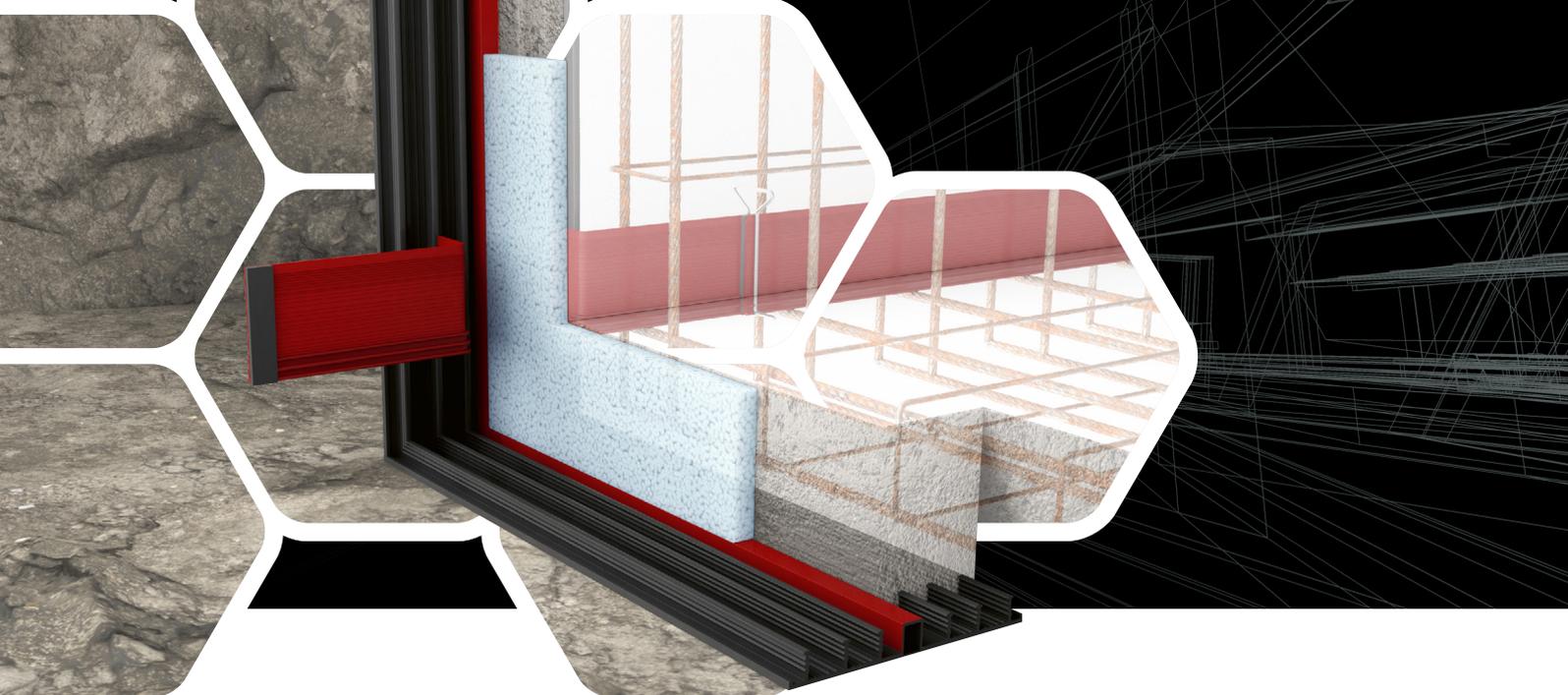
**Moulded part 6i**  
Vertical corner, anchor inside



**Moulded part 6a**  
Vertical corner, anchor outside



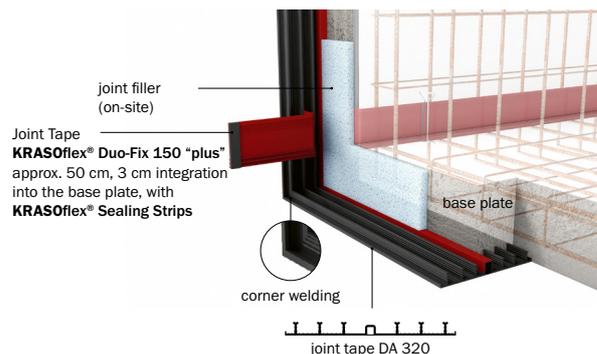
**Moulded part 7**  
Butt joint



# KRASOflex® Joint Tapes

## For building expansion joints and construction joints

+ DafStB waterproof concrete guideline: stress class 1 + 2



### KRASOflex® Building Expansion Joint T1 **LG 4**

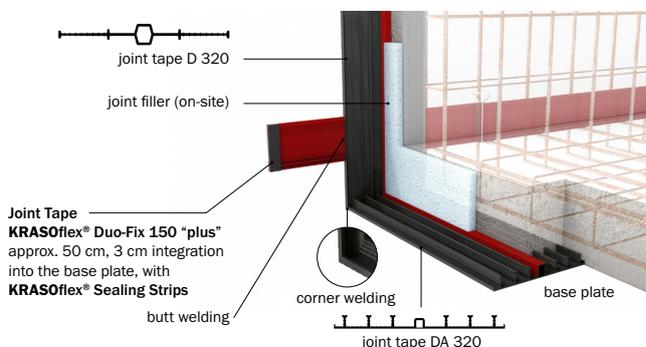
base plate and wall separate

corner moulding: external expansion joint tape type DA 320 (under the base plate) on external expansion joint tape type Type DA 320 (wall) and on **KRASOflex® Duo-Fix 150 "plus"** as connection piece for surrounding **KRASOflex® Duo-Fix 150 "plus"**, anchor lengths 50 cm each (expansion joint tapes according to factory standard, DIN 18541 and DIN 18541 BV)

| Item  | KRASOflex® Building Expansion Joint T1 |
|---|--|
| <b>KRASOflex® Building Expansion Joint T1</b> | Prices on request                      |

**Scope of supply:** KRASOflex® Building Expansion Joint T1 incl. 2 KRASOflex® Mounting Clamps

JOINT TAPES



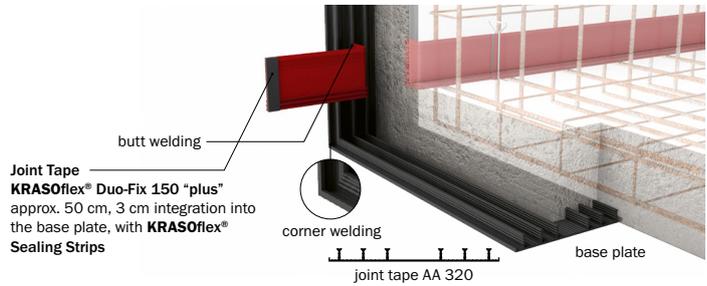
### KRASOflex® Building Expansion Joint T2 **LG 4**

base plate and wall separate

corner moulding: external expansion joint tape type DA 320 (under the base plate), on internal expansion joint tape type D 320 (wall), and on **KRASOflex® Duo-Fix 150 "plus"** as connection pieces, for surrounding **KRASOflex® Duo-Fix 150 "plus"**, anchor length 50 cm each (expansion joint tapes according to factory standard and DIN 18541)

| Item  | KRASOflex® Building Expansion Joint T2 |
|---|--|
| <b>KRASOflex® Building Expansion Joint T2</b> | Prices on request                      |

**Scope of supply:** KRASOflex® Building Expansion Joint T2 incl. 2 KRASOflex® Mounting Clamps



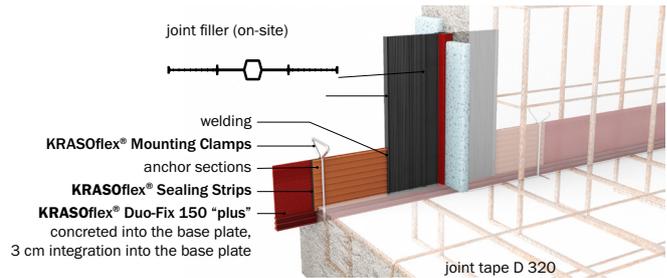
### KRASOflex® Construction Joint T3 **LG 4**

base plate and wall continuous

corner moulding: external construction joint tape AA 320 (under the base plate) on external construction joint tape Type AA 320 (wall), and on **KRASOflex® Duo-Fix 150 "plus"** as connection pieces for surrounding **KRASOflex® Duo-Fix 150 "plus"**, anchor length 50 cm each (construction joint tapes according to factory standard, DIN 18541 and DIN 18541 BV)

| Item                             | KRASOflex® Construction Joint T3 |
|----------------------------------|----------------------------------|
| KRASOflex® Construction Joint T3 | Prices on request                |

**Scope of supply:** KRASOflex® Construction Joint T3 incl. 2 KRASOflex® Mounting Clamps



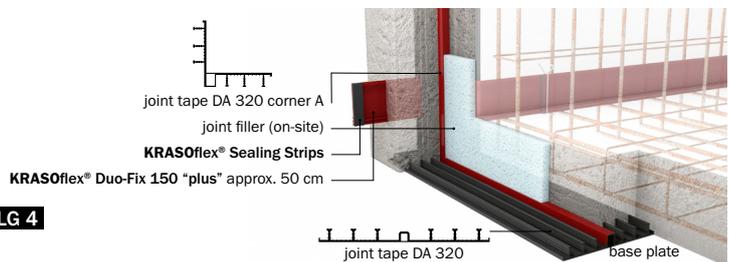
### KRASOflex® Wall Expansion Joint T4 **LG 4**

base plate continuous and separate wall

moulded part: internal expansion joint tape type D 320 (wall) with anchor section to attach to the surrounding **KRASOflex® Duo-Fix 150 "plus"** (expansion joint tapes according to factory standard and DIN 18541)

| Item                               | KRASOflex® Wall Expansion Joint T4 |
|------------------------------------|------------------------------------|
| KRASOflex® Wall Expansion Joint T4 | Prices on request                  |

**Scope of supply:** KRASOflex® Wall Expansion Joint T4 incl. 2 KRASOflex® Mounting Clamps



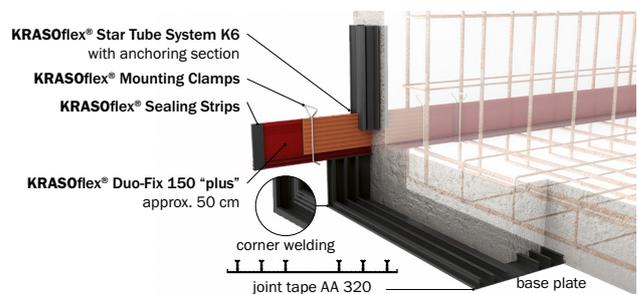
### KRASOflex® Building Expansion Joint T5 **LG 4**

base plate and wall separate

corner moulding: external expansion joint tape type DA 320 (under the base plate) on external expansion joint tape type DA 320 corner A (wall), and on **KRASOflex® Duo-Fix 150 "plus"** as connection pieces, for surrounding **KRASOflex® Duo-Fix 150 "plus"**, anchor lengths 50 cm each (expansion joint tapes according to factory standard, DIN 18541 and DIN 18541 BV)

| Item                                   | KRASOflex® Building Expansion Joint T5 |
|--|--|
| KRASOflex® Building Expansion Joint T5 | Prices on request                      |

**Scope of supply:** KRASOflex® Building Expansion Joint T5 incl. 2 KRASOflex® Mounting Clamps



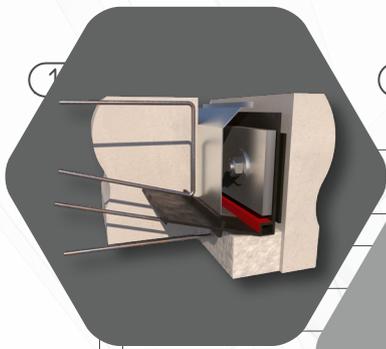
### KRASOflex® Construction Joint T6 **LG 4**

base plate continuous, joint area of triple wall (desired crack)

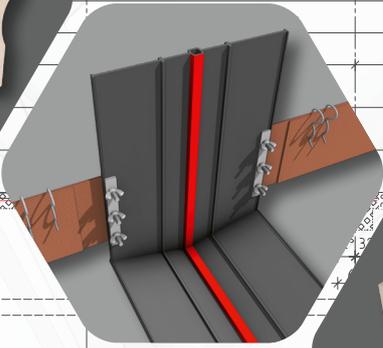
moulded part: external construction joint tape type AA 320 (under the base plate), on external construction joint tape Type AA 320 (wall) and on **KRASOflex® Duo-Fix 150 "plus"** as connection pieces for surrounding **KRASOflex® Duo-Fix 150 "plus"** and for adding **KRASOflex® Star Tube System K6** (must be ordered separately), anchor lengths 50 cm each (construction joint tapes according to factory standard, DIN 18541 and DIN 18541 BV)

| Item                             | KRASOflex® Construction Joint T6 |
|----------------------------------|----------------------------------|
| KRASOflex® Construction Joint T6 | Prices on request                |

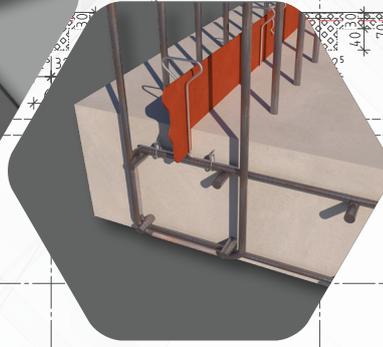
**Scope of supply:** KRASOflex® Construction Joint T6 incl. 2 KRASOflex® Mounting Clamps



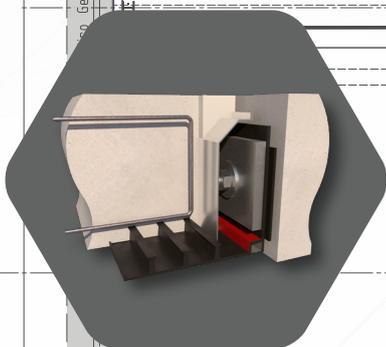
**KRASOflex® Clamp Construction D 330**  
expansion joint tape between existing  
and new building in the wall area,  
internal



**KRASOflex® ZVB - Clamp Plate 150**  
for the transition between **KRASOflex®**  
Clamp Construction D 330 and  
**KRASOflex®** Joint Plate ZVB 150



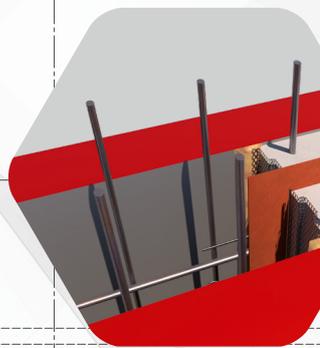
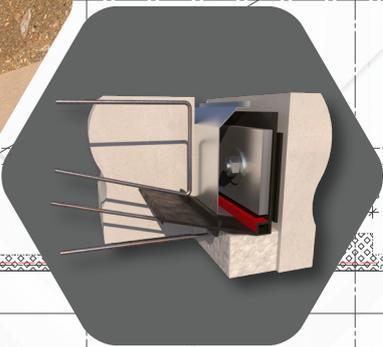
**KRASOflex® Clamp Construction DA 330**  
building expansion joint between existing  
and new building in the base plate area



**KRASOflex® Clamp Construction D 330**  
building expansion joint between existing  
and new building in the wall area, internal



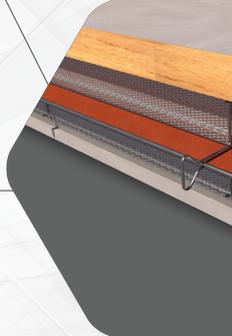
**KRASOflex® Cable Penetration KDS 150**  
single wall penetration with **KRASOflex®**  
Hose Connection as floor penetration  
with empty pipe insert



JOINT TAPES

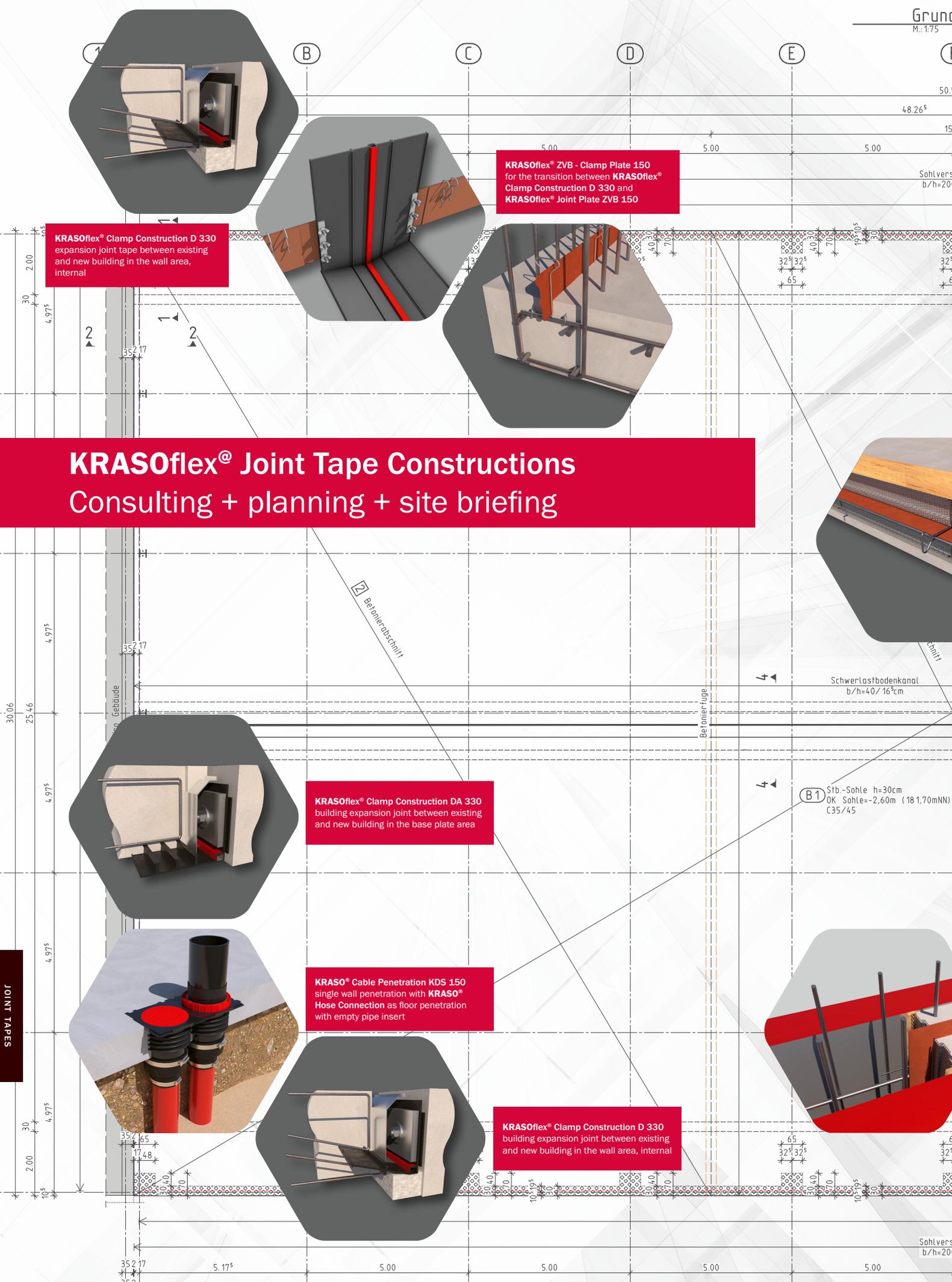
# KRASOflex® Joint Tape Constructions

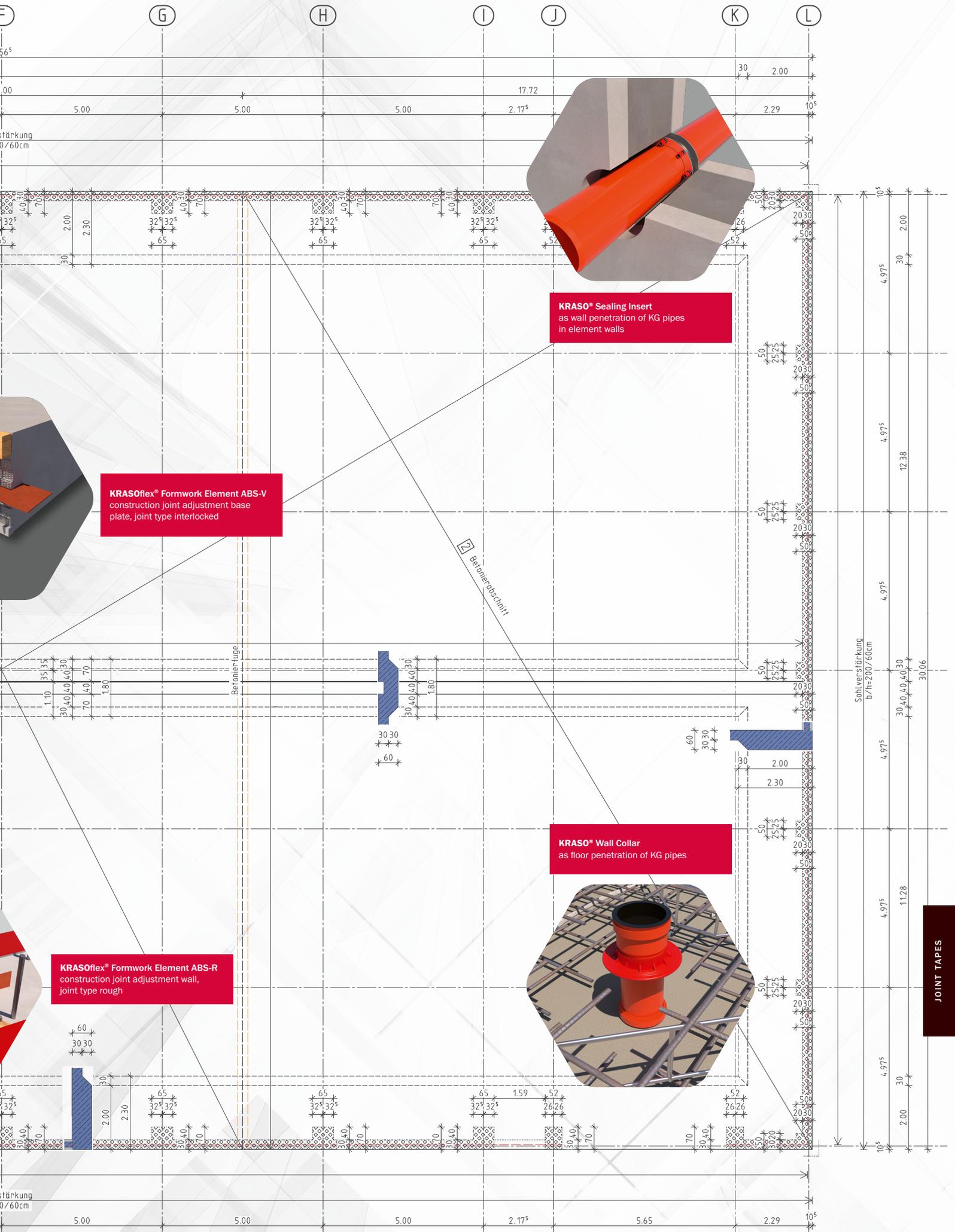
Consulting + planning + site briefing



Schwerlastbodenkanal  
b/h=40/16cm

(B1) Stb.-Sohle h=30cm  
OK Sohle=-2,60m (181,70mNN)  
C35/45





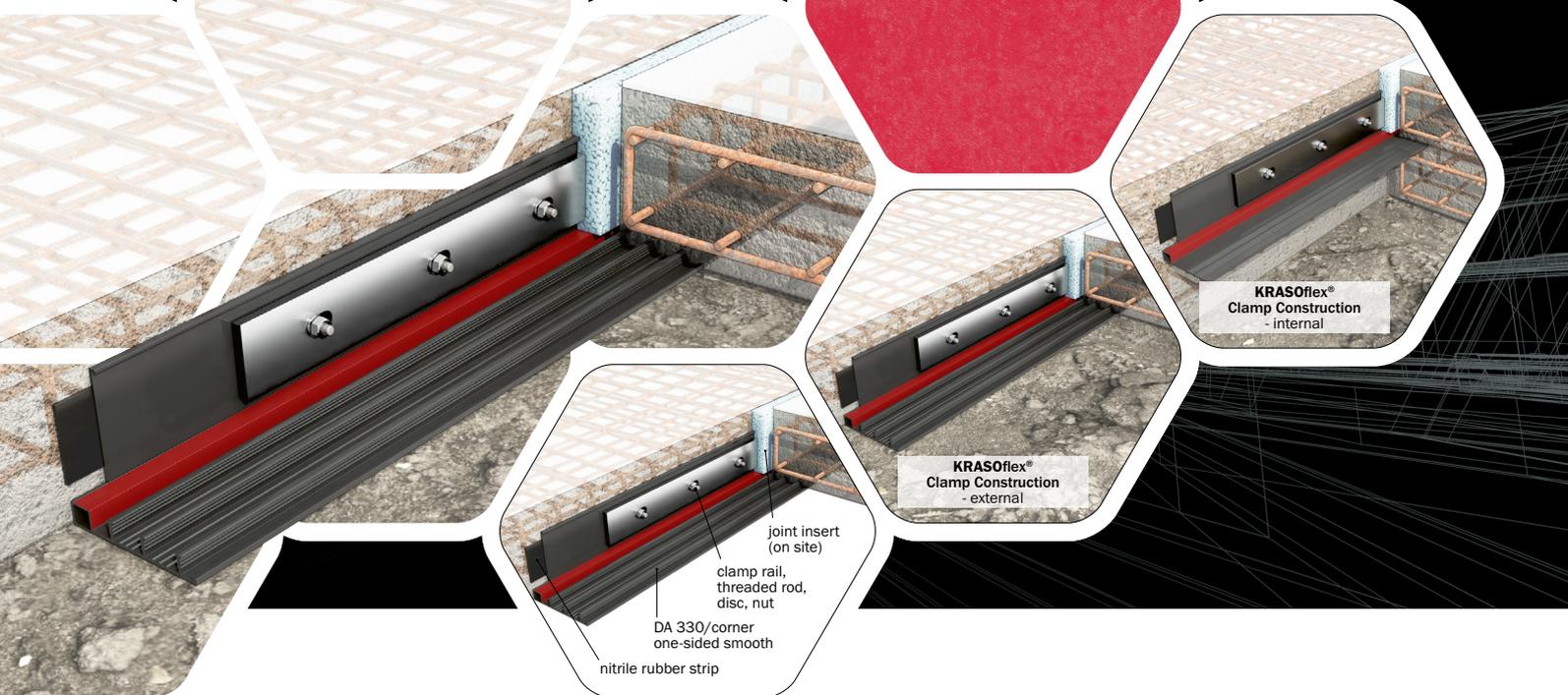
**KRASOflex® Formwork Element ABS-V**  
 construction joint adjustment base  
 plate, joint type interlocked

**KRASO® Sealing Insert**  
 as wall penetration of KG pipes  
 in element walls

**KRASO® Wall Collar**  
 as floor penetration of KG pipes

**KRASOflex® Formwork Element ABS-R**  
 construction joint adjustment wall,  
 joint type rough

JOINT TAPES



## KRASOflex® Clamp Constructions

For the connection of new elements to existing elements

- + Clamp constructions in stainless steel V4A, V2A or galvanised. Internal and external
- + DafStB waterproof concrete guideline: stress class 1 + 2

### KRASOflex® Clamp Joint Tape **LG 4**

internal or external combination joint tape with central hose as corner joint tape, with clamping and concreting part, available according to DIN 18541 and DIN 18541 BV

| Item   | KRASOflex® Clamp Joint Tape D 330<br>(internal) | KRASOflex® Clamp Joint Tape DA 330/35<br>(external) |
|--|---|---|
| Width in mm  | 170   | 170   |
| Height in mm   | 180   | 180   |
| Profile height in mm   | -   | 35  |
| Width hollow body in mm  | 25  | 25  |
| Roll length in metres  | 25  | 25  |
| <b>KRASOflex® Clamp Joint Tape D 330</b><br>(acc. to DIN 18541-2)        | <b>29.50 € per metre</b>                        | -   |
| <b>KRASOflex® Clamp Joint Tape D 330</b><br>(acc. to DIN 18541-2 BV)     | <b>41.50 € per metre</b>                        | -   |
| <b>KRASOflex® Clamp Joint Tape DA 330/35</b><br>(acc. to DIN 18541-2)    | -   | <b>33.80 € per metre</b>                            |
| <b>KRASOflex® Clamp Joint Tape DA 330/35</b><br>(acc. to DIN 18541-2 BV) | -   | <b>46.80 € per metre</b>                            |

## KRASOflex® Clamp Construction **LG 4**

internal or external combination joint tape with central hose as corner joint tape, with clamping and concreting part, available according to DIN 18541-2 and DIN 18541-2 BV, with raw rubber strips, flat steel clamp rail, anchor rods and shear connector cartridges M 12 or M 16

| Item  | galvanised      | stainless steel V2A | stainless steel V4A |
|---|-----------------|---------------------|---------------------|
| <b>KRASOflex® Clamp Joint Tape D 330 - M 12</b><br>(acc. to DIN 18541-2)        | 155 € per metre | 202 € per metre     | 242 € per metre     |
| <b>KRASOflex® Clamp Joint Tape D 330 - M 12</b><br>(acc. to DIN 18541-2 BV)     | 167 € per metre | 214 € per metre     | 254 € per metre     |
| <b>KRASOflex® Clamp Joint Tape DA 330/35 - M 12</b><br>(acc. to DIN 18541-2)    | 160 € per metre | 206 € per metre     | 246 € per metre     |
| <b>KRASOflex® Clamp Joint Tape DA 330/35 - M 12</b><br>(acc. to DIN 18541-2 BV) | 173 € per metre | 219 € per metre     | 259 € per metre     |
| <b>KRASOflex® Clamp Joint Tape D 330 - M 16</b><br>(acc. to DIN 18541-2)        | 165 € per metre | 244 € per metre     | 284 € per metre     |
| <b>KRASOflex® Clamp Joint Tape D 330 - M 16</b><br>(acc. to DIN 18541-2 BV)     | 177 € per metre | 256 € per metre     | 296 € per metre     |
| <b>KRASOflex® Clamp Joint Tape DA 330/35 - M 16</b><br>(acc. to DIN 1854-2)     | 170 € per metre | 248 € per metre     | 288 € per metre     |
| <b>KRASOflex® Clamp Joint Tape DA 330/35 - M 16</b><br>(acc. to DIN 18541-2 BV) | 183 € per metre | 262 € per metre     | 302 € per metre     |

**Scope of supply:** KRASOflex® Clamp Construction, set includes the following components per metre: 1 m KRASOflex® Clamp Joint Tape, 1 m raw rubber strips 80 x 4 mm, 1 m flat steel clamp rail 80 x 8 mm, slotted hole 15/26 (M 12) or 20/30 (M 16) every 15 cm, 7 pcs. anchor rods M 12 x 160 mm or M 16 x 190 mm, galvanised or stainless steel V4A, 7 pcs. shear connector cartridges M 12 or M 16



## KRASOflex® Clamp Constructions - Accessories **LG 4**

| Item  | KRASOflex® Clamp Constructions - Accessories |                     |                     |
|---|--|---------------------|---------------------|
|   | galvanised                                   | stainless steel V2A | stainless steel V4A |
| <b>Design</b>   |  |                     |                     |
| <b>Flat steel clamp rail - M 12</b><br>Length: 1.15 m, 80 x 8 mm. Slotted hole 16/25 every 15 cm  | 71.50 € per metre                            | 89.50 € per metre   | 129.50 € per metre  |
| <b>Flat steel clamp rail - M 16</b><br>Length: 1.15 m, 80 x 8 mm. Slotted hole 20/30 every 15 cm  | 71.50 € per metre                            | 89.50 € per metre   | 129.50 € per metre  |
| <b>Anchor rods - M 12</b><br>M 12 x 160 mm, unit: 10 pcs. per box   | 2.20 € per piece                             | -                   | 6.50 € per piece    |
| <b>Anchor rods - M 16</b><br>M 16 x 190 mm, unit: 10 pcs. per box   | 3.20 € per piece                             | -                   | 12.00 € per piece   |
| <b>Internal corner - M 12</b><br>Flat steel 80 x 8 mm, leg length approx. 100 mm, incl. 1 pc. anchor rod M 12 x 220 mm, 1 pc. shear connector cartridge M 12                                  | 103.00 €                                     | 126.20 €            | 158.20 €            |
| <b>Internal corner - M 16</b><br>Flat steel 80 x 8 mm, leg length approx. 100 mm, incl. 1 pc. anchor rod M 16 x 230 mm, 1 pc. shear connector cartridge M 16                                  | 104.30 €                                     | 131.90 €            | 163.90 €            |
| <b>External corner - M 12</b><br>Flat steel 80 x 8 mm, leg length approx. 200 mm, incl. 2 pcs. anchor rods M 12 x 160 mm, 1 pc. anchor rod M 12 x 220, 3 pcs. shear connector cartridges M 12 | 150.10 €                                     | 176.70 €            | 224.30 €            |
| <b>External corner - M 16</b><br>Flat steel 80 x 8 mm, leg length approx. 200 mm, incl. 2 pcs. anchor rods M 16 x 190 mm, 1 pc. anchor rod M 16 x 230, 3 pcs. shear connector cartridges M 16 | 154.00 €                                     | 194.00 €            | 241.60 €            |
| <b>Shear connector cartridges - M 12</b><br>Unit: 10 pcs. per box   |  | 2.00 € per piece    |                     |
| <b>Shear connector cartridges - M 16</b><br>Unit: 10 pcs. per box   |  | 2.30 € per piece    |                     |
| <b>Raw rubber strips 80 x 4 mm</b><br>Roll per each 10 m, weight per roll approx. 3.66 kg   |  | 13.50 € per metre   |                     |
| <b>Clamp protection profile for clamp constructions</b><br>Galvanised steel sheet, perforated, element length 1,150 mm, incl. 5 pcs. nail dowels 6 x 40 mm                                    |  | 14.50 € per metre   |                     |
| <b>Primer for clamp constructions</b><br>Unit: 1 kg per bag (consumption: approx. 0.3 - 0.5 kg per m <sup>2</sup> - depending on basis/application)   |  | 72.50 € per bag     |                     |
| <b>Joint tape clips</b><br>Unit: 200 pcs. per box   |  | 130.00 € per box    |                     |

# KRASOflex® Accessories for welded joint tapes

## Welding thermoplastic joint tapes

+ Accessories for professional welding of thermoplastic **KRASOflex®** Joint Tapes

### KRASOflex® Welding Machine KSG **LG 4**

for welding thermoplastic joint tapes, with highly effective, teflon-coated welding blade, fixed and movable table. The appropriate **KRASOflex®** Matrix Sets are required for use!



| Item  | KRASOflex® Welding Machine KSG 400 | KRASOflex® Welding Machine KSG 600 |
|---|------------------------------------|------------------------------------|
| Welding width   | max. 380 mm                        | max. 580 mm                        |
| KRASOflex® Welding Machine KSG  | Price on request                   | Price on request                   |
| KRASOflex® Welding Matrices KSG for KRASOflex® Construction Joint Tapes A, ASI and AA and KRASOflex® Expansion Joint Tapes D and DA | Price on request                   | Price on request                   |

**Scope of supply:** KRASOflex® Welding Machine KSG with welding blade, fixed and movable table, power cable • KRASOflex® Welding Matrix KSG

### KRASOflex® Sealing Strip 30 x 2 **LG 4**

as reinforcement strip for expansion joint tapes and construction joint tapes under heavy load.



| Item                            | KRASOflex® Sealing Strip 30 x 2 |
|---------------------------------|---------------------------------|
| Dimensions in mm                | 30 x 2                          |
| Roll length                     | 30 m                            |
| KRASOflex® Sealing Strip 30 x 2 | Price on request                |



### KRASOflex® Welding Tools **LG 4**

for preparing, finishing and checking joint tape welds

| Item                               | KRASOflex® Welding Tools |
|------------------------------------|--------------------------|
| KRASOflex® Spark Tester KSG        | Price on request         |
| KRASOflex® Welding Axe             | Price on request         |
| KRASOflex® Heat Gun 230V           | Price on request         |
| Slot die (for KRASOflex® Heat Gun) | Price on request         |
| Crescent knife                     | Price on request         |
| Repulsion knife                    | Price on request         |
| Pressure roller                    | Price on request         |

### KRASOflex® Joint Tape Connector **LG 4**

for the connection of **KRASOflex®** Construction Joint Tapes without welding, installation takes place during laying, made of non-corrosive stainless steel threaded rods V2A, black steel clamp rails, cell rubber sealing strip and with Torque Control Nut **KRASOflex®** DKM



| Item                            | KRASOflex® Joint Tape Connector |         |         |         |         |         |
|---------------------------------|---------------------------------|---------|---------|---------|---------|---------|
| Profile width in mm             | 80                              | 120     | 150     | 200     | 240     | 320     |
| KRASOflex® Joint Tape Connector | 34.10 €                         | 37.20 € | 39.00 € | 43.90 € | 46.90 € | 50.50 € |



# Special designs



+ Stainless steel

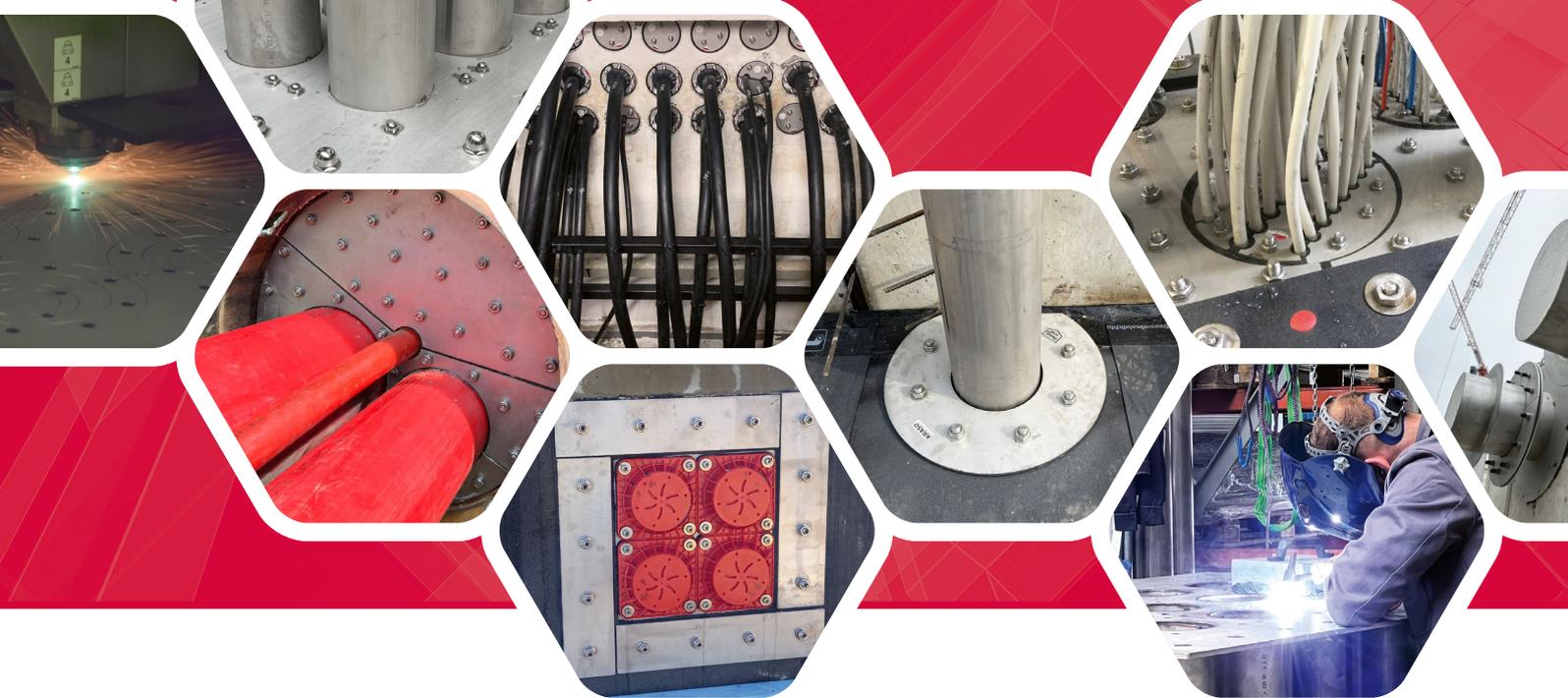
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+ Plastic

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+ Concrete

\_\_\_\_\_ 172



## KRASO® Special Designs made of stainless steel

### Non-corrosive stainless steel: simple and tight

- + Sealing inserts, casings, flange plates ... We use exclusively non-corrosive stainless steel with the quality seal V2A or V4A for our special designs made of stainless steel. Solutions made of electrogalvanised steel are of course also possible!
- + The production takes place on e.g. the latest laser and waterjet cutting machines!
- + Special designs made of stainless steel are generally ready for dispatch within 24 hours! Direct delivery to the construction site is possible.
- + **KRASO® Special Designs** made of stainless steel are real problem solvers, particularly for rehabilitation projects!

*“Thanks to our manufacturing expertise in stainless steel, we find a suitable solution for every project - even at short notice and fully assembled by our employees.”*

Jens Wenzlaff, application engineer



## We look forward to your enquiry

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SPECIAL DESIGNS



## KRASO® Special Designs made of plastic Resistant and low weight

- + Whether drain, floor or wall penetration, pump sump or backwater shaft – **KRASO® Special Designs** made of plastic consist of high-quality components, for example our solid wall, break-resistant and impact resistant KG pipes.
- + Whether new building or rehabilitation: **KRASO® Special Designs** made of plastic offer a lot of advantages compared to other solutions – e.g. low weight and an easy installation!
- + A lot of our numerous special designs include our water pressure tight surrounding **KRASO® 4 Seal**. This is joined monolithically (force-fit) to the solid wall pipe and thus prevents any creep or slippage by pressing water.

*“Plastic is a very versatile material on the construction site. We therefore offer individual solutions for new buildings and rehabilitation - produced and delivered at short notice.”*

Carsten Demming, application engineer



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## KRASO® Special Designs made of concrete

### Precast concrete elements save time and money

- + Pump sumps, cable ducts, lift pits – made of waterproof concrete, produced exactly as per your specifications! All dimensions (width, length, height, wall thickness) are variable.
- + Mounting parts like pipe penetrations, casings or anchor rails (for lift pits) are installed accurately.
- + Weather-independent production of concrete shafts up to a total gross weight of 20 tons - but also pump sumps and lift pits with significantly higher weights can be produced.
- + Saves working time, money and additional drainage! We are happy to advise you personally!

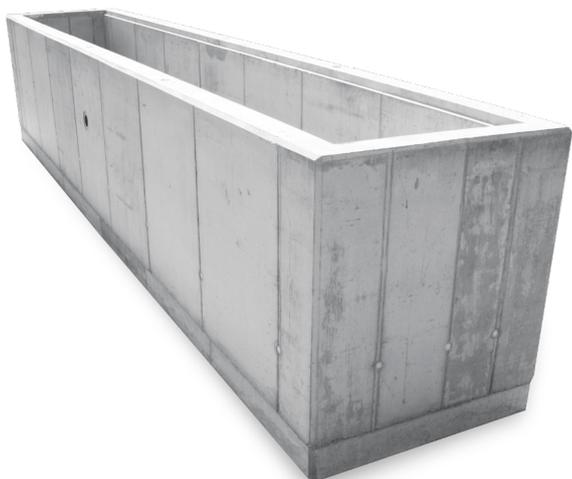
*“We produce precast concrete elements exactly according to the customer’s specifications, regardless of the weather and season. This makes it much easier to plan construction projects - both in regard to deadlines and costs.”*

Michael Schwarz, application engineer



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## It is only with the heart that one can see rightly. What is essential is invisible to the eye.

Antoine de Saint-Exupéry

- + We have been developing, producing and distributing water pressure tight installation parts for concrete engineering and sealing solutions for cables and pipes with heart and soul since 1981. Though our products are invisible to the eye, they are essential for the inside.
- + As a specialist for pump sumps, joint tapes, pipe and cable penetrations, utility connection entries and outlets, sealing inserts and special designs for customised proposals, the **KRASO®** brand stands for a wide range of solutions for waterproofing buildings. From foundation to flat roof, **KRASO® Products** can be found anywhere. Tested in the laboratory proven on the construction site – this sets our sealing solutions apart: simple to install, tight against pressing water.
- + Our medium-sized family-run business only has production facilities in Germany and is proud to live up to the quality recognised worldwide from products “Made in Germany”.
- + We put the emphasis on quality materials, innovative and accurate production processes, comprehensive advice - even on-site - and provide full service.
- + We enjoy long-standing and trusting partnerships with our customers.



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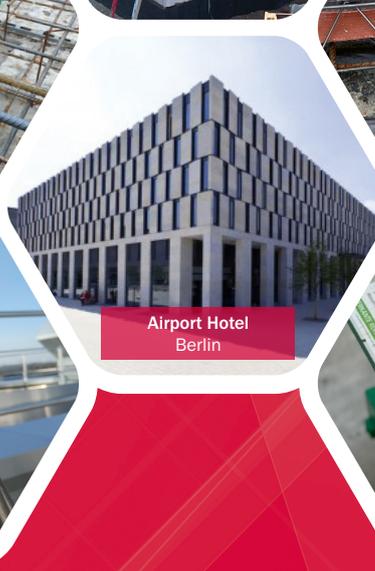
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St. Josephs-Stift  
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"Complete sealing systems" stands for what makes KRASO® unique:

We offer a comprehensive range of products for sealing solutions.

For us, tight in every detail means more than just a slogan.

It is our promise to planners, engineers and technical draughtsmen.



Reliable sealing solutions



From planning to completion

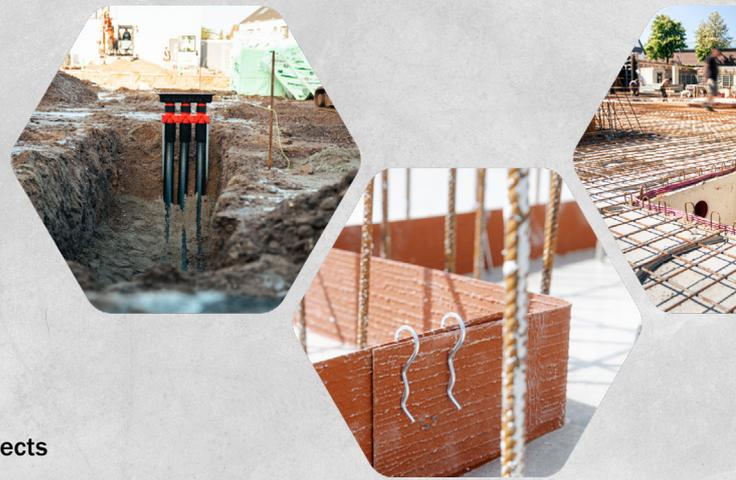


Comprehensive approach



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- ✔ In-house production, “Made in Germany”
- ✔ Practical adaptation to building conditions
- ✔ Competent advice from technical specialists
- ✔ Many years of experience in complex waterproofing projects



### Our target group: you!

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### Planning, implementation, consulting – play it safe with **KRASO®**

You do not receive only products, but also a functional overall concept. Our systems can be combined with one another, are technically tested and proven in practice. Thanks to individual customisation, we can solve almost any installation situation – even special requests. Our consulting services support you directly in the planning phase and beyond.



### Made in Germany. Made for the construction site

**KRASO®** has been manufacturing its own products for decades – with the highest quality standards. Our solutions are developed from practical experience, for practical use. And because we offer everything from a single source, your planning remains lean, efficient and secure.

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Freight conditions and delivery terms as well as payment terms and discounts are subject to agreement.

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