

### **Stainless steel**

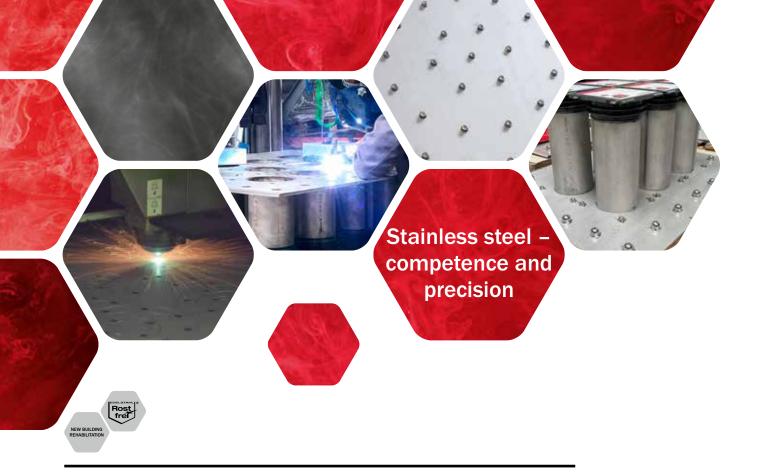
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### Plastic

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# **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 water-jet 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**<sup>®</sup> 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



#### KRAS0<sup>®</sup> Special Sealing Insert Type SD30 Blind non-corrosive stainless steel V2A / 30 mm seal, MPA-tested up to 2.5 bar

for core drilling 110 mm, **KRAS0**° Special Sealing Insert Type SD 30, non-corrosive stainless steel V2A / 30 mm seal, MPAtested up to 2.5 bar, for core drilling 110 mm, single or multip le sealing insert, media line: 1 x to 42 mm, 2 x to 39 mm, 1 x 39.3 mm, 1 x 38.6 mm, 2 x 38.5 mm, 1 x 39.2 mm, 3 x 38.2 mm, 2 x 16.0 mm, 2 x 39.8 mm, 1 x 42.0 mm, 2 x 30 mm, 1 x 39.5 mm, 1 x 38.8 mm,

1 x 38.4 mm



KRASO® Stainless Steel Flange Plate - Special internal diameter: 250 mm, for installation of pipes or cables: 0 to 225 mm using KRASO® Sealing Insert, in front of a core drilling in concrete or brick walls, plate and tubular sleeve made of VAA, with EPDM flat seal and fixing material M12, protrusion length approx. 100 mm Plate size d = approx. 450 mm,

KRASO® Type FE/DF - ID 150 with 3 expansion parts, internal diameter: 150 mm, delivery length: approx. 180 cm, KRASO® Special Sealing Insert Type SD 60, stainless steel V4A / 60 mm seal



#### KRASO<sup>®</sup> Plastic Flange Plate Type KFP -Multiple split

Plate size d = approx. 1000 x 550 mm, internal diameter: 2 x 150 mm + 1 x 80 mm + 2 x 200 mm + 1 x 60 mm, external diameter media line: 0 - 110 mm, **KRAS0**<sup>®</sup> Special Sealing Inserts Type SD 30-T, split, non-corrosive stainless steel V2A / 30 mm seal, MPA-tested up to 2.5 bar, for casing Type FE or core drilling 80 mm, among others for media lines: 1 x 7.5 mm +

1 x 8.5 mm + 2 x 9.5 mm + 2 x 10.5 mm + 1 x 6 mm + 1 x 14.5 mm



KRAS0° Cable Penetration KDS 150 - FL/ZE/DD - Special as cable penetration 1 x 5 - against pressing water according to DIN 18533 W2-E, tubular sleeve internal diameter: 5 x 155 mm, wall thickness: 40 cm, double-sided, with fixed-loose flange and exterior protrusion flange FDS 150, for concreting, for installation of media pipes using KRAS0° System Sealing Insert KDS 150 (not included in the scope of supply or for the connection of KRAS0° KDS 150 Accessories for buildings with exterior sealing, made of non-corrosive stainless steel V2A, with water pressure tight surrounding KRAS0 2 Seal on one side and 10 KRAS0° KDS 150 Closure Covers



KRASO\* Sealing Insert Type SD 150 - Special for KRASO\* Casing Type FE or core drilling-dt 800 mm, noncorrosive stainless steel V2A, 150 mm seal against pressing water, external diameter media pipes: 1 x 679 mm



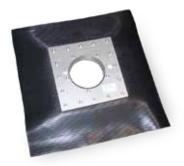
KRASO® Casing Type FL/ZA - Special internal diameter: 2 x 200 mm + 8 x 150 mm protrusion length: approx. 80 mm with special coating, for the installation of cables or pipes from 0 to 175 and 0 to 125 mm using KRASO® Sealing Insert, stainless steel casing V2A for dowel-fixing (bolts, nuts and washers M20) with fixed-loose flange construction for buildings with exterior sealing ("black tank") against pressing water according to DIN 18533 W2-E



KRASO\* Sealing Insert Type SD 30, Blind - Special for KRASO\* Casing Type FE or core drilling-d: 940 mm, noncorrosive stainless steel V2A, 30 mm seal, against pressing water, MPA-tested up to 2.5 bar



**KRAS0<sup>®</sup> Swan Neck - Special** 90 ° angled, flat roof penetration, galvanised design, for dowel-fixing, swivelling by 360 °, nominal size: 150 mm



KRASO® Foil Clamping Flange Type FKF - Special as rectsquare recess, incl. KRASO® Foil Flange, oil- and bitumen resistant, surrounding approx. 15 cm, for the sealing of media of any kind of material, external diameter recess: 310 x 305 mm, external diameter media line: 110 mm



# **KRASO<sup>®</sup> Special Designs made of plastic** Resistant and low weight

- + Whether drain, floor or wall penetration, pump sump or backwater shaft KRASO<sup>®</sup> 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 rehabilition: KRASO**<sup>®</sup> 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**<sup>®</sup> 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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SPECIAL DESIGNS



#### KRASO® Plastic Flange Plate Type KFP multiple with foil flange - Special

for the installation of media lines using KRASO® Sealing Insert in front of a core drilling in concrete or masonry wall, plate made of 60 mm thick, high-strength special plastic, with EPDM flat seal, fixing and sealing material and PU 50, 1 x 250 mm, 2 x 215 mm

### KRASO® Special Sealing Inserts Type SD40-T non-corrosive stainless steel V2A / 40 mm seal

MPA-tested up to 3 bar, for KFP: 249 mm, media line: 203 mm, for KFP: 214 mm, media line: 166 mm



KRASO® Pump Sump Type Q - Special with 15 cm surrounding fixed-flange and water pressure tight surrounding  $\textbf{KRAS0}^{\texttt{*}}$  4 Seal on the fxed flange, reinforcing rips and concrete anchors and 35 water pressure tight KG pipe connections

internal dimensions: approx. 145 x 170 x 135 cm total weight: approx. 290 kg



KRAS0® Plastic Flange Plate Type KFP 150 Multiple 2x4 8 x 160 mm with welded KG 2000 spigot for the connection of a hose connection (10 cm protrusion length) MPA-tested up to 3 bar, plate made of 60 mm thick, highstrength special plastic, with EPDM flat seal, fixing and sealing material and PU 50, wall opening incl. chamfer strip : 930 x 550

plate size external = approx. 1090 x 710 mm



KRASO<sup>®</sup> Cable Penetration 150 - package 1x5 - as oblique double wall penetration at 45 degrees - incl. surrounding roughened trowel flange at one side- Special for the horizontal installation of supply lines at  $45^{\circ}$  angle, such as e.g. water - electricity - telecommunication etc. in buildings with a basement, with water pressure tight surroun ding **KRASO**<sup>®</sup> 4 Seal , with roughened trowel flange



KRASO<sup>®</sup> Pump Sump Type Q - Special with 15 cm surrounding fixed-flange and water pressure tight surrounding KRASO® 4 Seal on the fixed-flange, reinforci ٦g rips and concrete anchors and 35 water pressure tight KG pipe connections internal dimensions; approx, 145 x 170 x 135 cm total weight: approx. 290 kg



KRAS0<sup>®</sup> Cable Inlet Box System KDS 150 - Special bending radius approx. 200 cm, for the secure connection of supply lines such as e.g. water - electricity - telecommunication etc. in buildings without basement. With installation device, empty pipe insert 20 cm and water pressure tight surrounding KRASO® 4 Seal and 2 KRASO® KDS Closure Covers



KRAS0® Cable Inlet Box System KDS 150 - 2x3 - Special with water pressure tight surrounding  $\textbf{KRAS0}^{\texttt{0}}$  4 Seal , suitable  $\textbf{KRAS0}^{\texttt{0}}$  KDS empty pipe insert 20 cm, 90 ° empty pipe system, installation device and 12 KRASO® KDS 150 Closure Covers



KRAS0® Multi System Penetration Type FE 2 x 11 - Special plate size approx. 1495 x 590 mm, incl. 22 casings ID 80, water pressure tight surrounding **KRASO**® 4 Seal on the plate and surrounding trowel flange roughened, wall thickness approx. 560 mm



KRAS0<sup>®</sup> Cable Penetration KDS 150 with trowel flange as double wall penetration 1 x 8, 2 x 6, with KRASO® Spacer 40 mm for KDS 150 double

wall penetration for the enlargement of the centre distance from 210 mm to 250 mm, roughened trowel flange, with KDS Closure Covers



## **KRASO<sup>®</sup> 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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### KRAS0® Pump Sump - concrete - Special

internal dimensions approx. 200 x 270 x 150 cm. external dimensions approx. 250 x 320 x 175 cm, 2 KRASO® Casings Type FE ID 200, made of waterproof concrete, with 25 cm thick, reinforced wall and base plates ( 20 kg per cbm ), rebar connection approx. 8/15 two-rowed, surrounding water pressure tight, MPA-tested construction joint tape KRASOflex\* Duo-Fix 150 "plus", 4 lifting lugs Rd30, weight/piece: approx. 15.30 t, with additional reinforcement according to the indications of the structural engineer



#### KRAS0<sup>®</sup> Cable Duct - Special

internal dimensions approx, 140 x 140 x 110 cm, incl. angle frame installation, made of waterproof concrete, with 20 cm thick, reinforced wall and base plates ( 20 kg/ per cbm). without rebar connection/joint tape, 10 KRASO® Cable Penetrations KDS 150 on one side , according to drawing, 4 lifting lugs Rd20, weight/piece.: approx. 5 t



KRAS0<sup>®</sup> Pump Sump - concrete - Special internal dimensions approx. 250 x 150 x 120 cm, 3 x KRAS0<sup>4</sup> Cable Penetration KDS 150 on one side package 1 x 3, KRA-SO® Casing Type FE ID 200 on one side with welded sleeve made of waterproof concrete, with 20 cm thick, reinforced wall and base plates ( 20~kg/ per cbm ), rebar connection approx. 8/15 two-rowed, surrounding water pressure tight, MPA-tested construction joint tape KRASOflex® Duo-Fix 150 "plus", 4 lifting lugs Rd30, weight/piece; approx, 7.8 t



### KRASO® Pump Sump - concrete - Special internal dimensions approx. 100 x 100 x 80 cm, made of

waterproof concrete, with 12 cm thick, reinforced walls in one piece cast, rebar connection approx. 8/15 two-rowed, surrounding water pressure tight, MPA-tested construction joint tape **KRASO**flex<sup>®</sup> Duo-Fix 150 "plus", 4 lifting lugs M20, connections: 8 x DN 110, 2 x DN 250, 2 x ID/FE 200, total weight: approx. 1.5 t



KRAS0® Pump Sump - concrete - Special

internal dimensions approx. 104 x 104 x 192 cm, made of waterproof concrete, with 20 cm thick, reinforced wall and base plate (20 kg per cbm), rebar connection approx. 8/15 two-rowed, water pressure tight surrounding, MPA-tested construction joint tape KRASOflex® Duo-Fix 150 "plus". incl. PE pipe DN 124 with water pressure tight surrounding **KRASO**<sup>®</sup> 4 Seal with protrusion on both sides approx. 15 cm, 4 lifting lugs Rd20, total weight: approx. 5.94 t



#### KRASO® Pump Sump - concrete - Special

internal dimensions approx. 160 x 160 x 1,95 cm, 8 KRASO Casings Type FE ID 200, made of waterproof concrete, with 20 cm thick, reinforced wall and base plate (20 kg per cbm ). rebar connection approx. 8/15 two-rowed, surrounding water pressure tight, MPA-tested construction joint tape  ${\bf KRASOflex}^{\circ}$  Duo-Fix 150 "plus", 4 lifting lugs Rd30, total weight: approx. 8.80 t



KRASO® Pump Sump - concrete - Special internal dimensions approx. 100 x 70 x 80 cm, made of water proof concrete, with 20 cm thick, steel fibre reinforced wall and base plate (20 kg per cbm). Rebar connection approx. 8/15

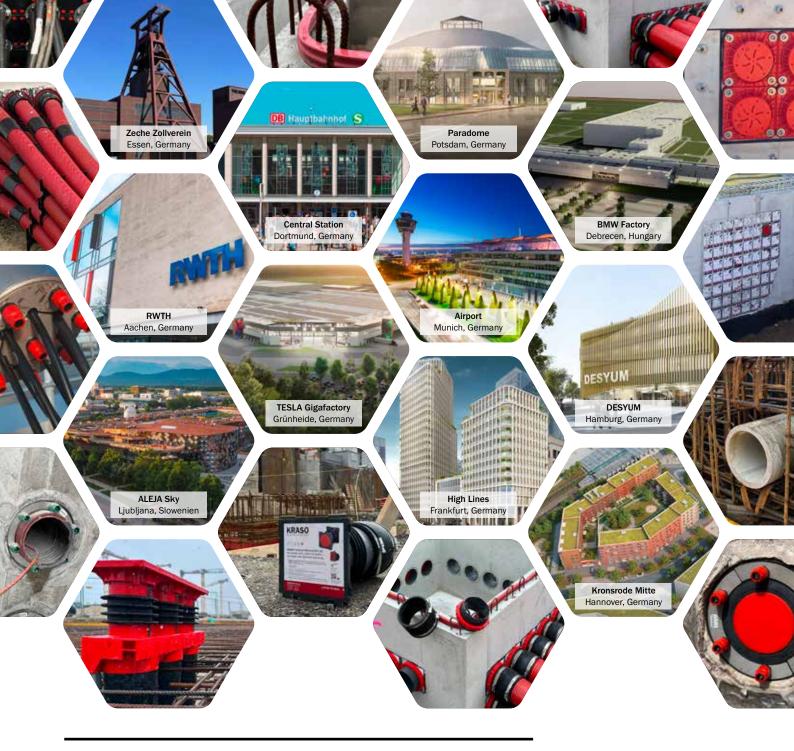
two-rowed, surrounding water pressure tight, MPA-tested cons-truction joint tape **KRASO**flex<sup>®</sup> Duo-Fix 150 "plus", 4 lifting lugs M20, connections: 6 x DN 125, total weight: approx. 2.4 t



KRASO® Pump Sump - concrete - Special internal dimensions approx. 100 x 750 x 140 cm, made of waterproof concrete, with 20 cm thick, steel fibre reinforced wall and base plate (20 kg per cbm) and 1 x pipe connection DN 110, without rebar connection, without joint tape, total weight: approx. 17.5 t



KRASO® Pump Sump - concrete - Special internal dimensions approx. 100 x 100 x 80 cm, made of waterproof concrete, with 12 cm thick, steel fibre reinforced wall and base plate (20 kg per cbm). Connections: 2 x DN 200, 4 x DN 110, 1 x DN 110 in the bottom, total weight: approx. 1.5 t



"Starting and growing a business is as much about the innovation, drive, and determination of the people behind it as the product they sell."

- + Since our foundation, our aim has always been to develop innovative solutions and continuously improve our products. With enthusiasm and a strong team, we have been pursuing this path with dedication for over 40 years successfully!
- + 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 right up to assembly on the construction-site.

