

... for more than 40 years +

KRASO®

SIMPLE + TIGHT

Technical details

Type of the sealing sheet	Torque for M12 (Nm)	Torque for M20 (Nm)
KMB (plastic-modified thick coatings)	30	100
Bare bitumen sheets according to DIN 52129-R	12	50
PIB (polyisobutylene) bonded with bitumen	12	50
Bitumen sheets and polymer bitumen sheets according to table 1 of DIN 18533-2:2017-06, with glass fabric reinforcement	15	65
Bitumen sheets and polymer bitumen sheets according to table 1 of DIN 18533-2:2017-06 with reinforcement made of polyester fleece or copper tape	20	80
DIN 52129 500 N + 1 x Cu	20	1. 100 2. 80 3. 80
ECB (ethylene copolymer bitumen) sheets, PVC-P sheets, elastomeric sheets and EVA (ethylene vinyl acetate) sheets according to table 3 of DIN 18533-2:2017-06 bonded with bitumen	20	80
DIN 52129 R 500 N + 2 x Cu	30	1. 120 2. 100 3. 80
Plastic sealing according to table 3 of DIN 18533-2:2017-06, loose laid	30	100
When using KRASO® Supplements KZU ED/DD	30	80

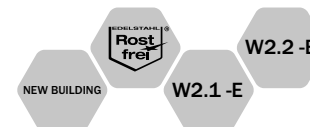
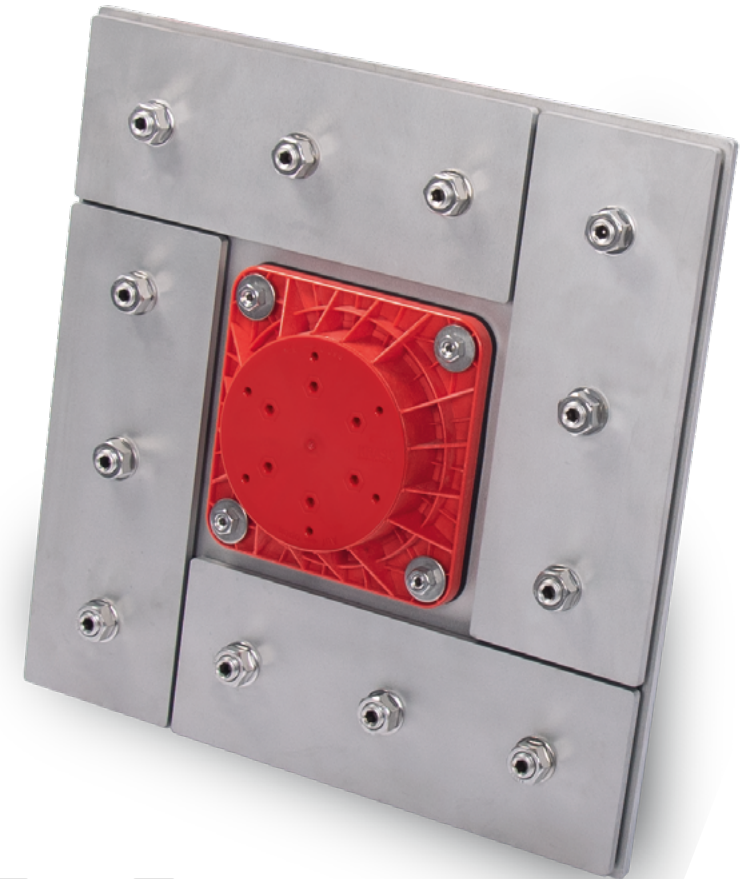
Torques according to DIN 18533-1:2017-06 table A2 and according to the torque guidelines of the manufacturer of the sheets for tightening loose flange constructions



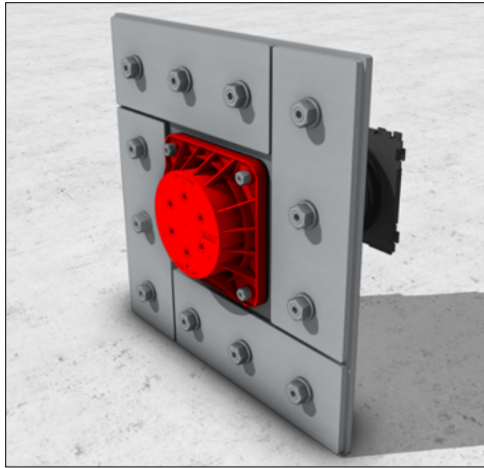
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KRASO® Cable Penetration KDS 150 FL/ZE
double wall penetration
Installation instructions



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

cable penetration **KDS 150 FL/ZE** as double wall penetration, with fixed-loose flange and exterior protrusion flange **FDS 150** for concreting, for installation of media pipes using **KRASO® System Sealing Insert 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, with water pressure tight surrounding **KRASO® 2 Seal**, for buildings with exterior sealing ("black tank") against pressing water / non-pressing water according to DIN 18533. Available in non-corrosive stainless steel V2A or with special coating
| DIN 18533 W2.1 -E and W2.2 -E

1. Nail the **KRASO®** Cable Penetration KDS 150 FL/ZE double wall penetration through the 4 holes in the frame.
2. Lay reinforcement.
3. Formwork, ensure sufficient distance to the tie points, then concrete.
4. Remove formwork, pull out the plug and clean the fixed flange as required. Screw in the bolts.
5. Apply **KRASO®** PU 50 in the area of the **KRASO®** Protrusion Flange FDS 150 and put on the EPDM supplement.
6. Apply **KRASO®** PU 50 to the EPDM supplement.
7. Install **KRASO®** FDS incl. washers and nuts.
- Point 8. - 12. - thick coating**
8. Slide the spacers over the bolts until they reach the special coating.
9. Apply the first layer of thick coating.
10. **If necessary:** install fabric fleece.
11. Apply the second layer of thick coating.
12. Install the loose flange, washers and nuts. Use a torque wrench.
- Point 13. - 15. - sealing sheets**
13. Cut out the sealing sheet in the area of the bolts and the **KRASO®** Protrusion Flange FDS 150.
14. If necessary, attach supplements (optionally available) and sealing sheet to the fixed flange in accordance with the manufacturer's specifications.
15. Install the loose flange, washers and nuts. Use a torque wrench.

The tightening torque of the loose flange is based on DIN (see table on the back). Torque of the supplements according to the manufacturer's specifications for the respective sealing sheet.

