

INSTALLATION INSTRUCTION

1. Clean casing pipe/core drilling and carrier pipe. Carrier pipes must be suitable, dimensionally stable and without damage in the sealing area. Core drillings have to be made true to scale and with a smooth inner side.
2. We recommend coating core drillings with ProteX epoxy resin in order to protect the concrete and smoothen possible cavities/grooves.
3. Verify the casing pipe/core drilling and carrier pipe diameters based on the sealing kit data. Insert the Kompakt seal into the casing pipe or core drilling flush with the wall and insert the carrier pipe. Care must be taken to ensure the sealing insert is mounted on the outside of the building (tolerance for the carrier pipes).
4. In doing so, the nuts should preferably point to the inside in order to be accessible for subsequent tightening. The Kompakt seal split version is available for subsequent mounting. Tighten the nuts a few turns clockwise. Repeat this procedure two or three times, but not beyond the maximum torque (see table below). Tighten again after half an hour!

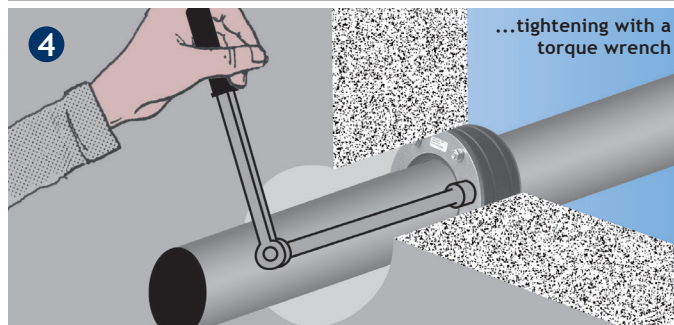
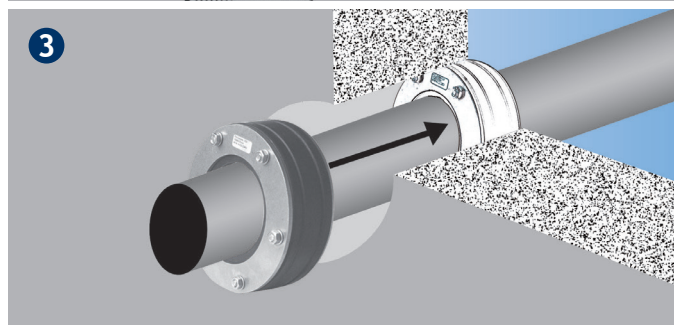
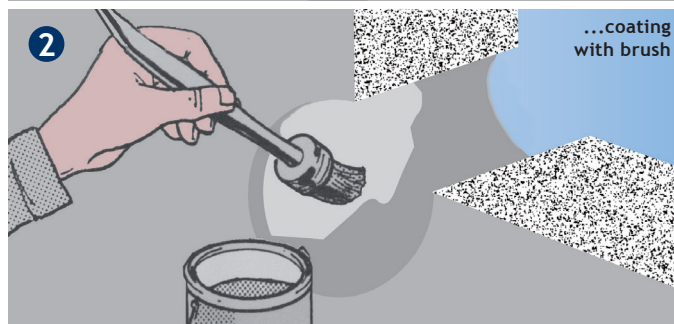
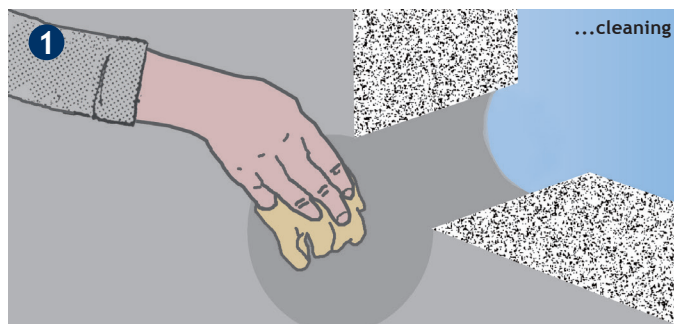
Important notes:

- The Kompakt seal is not an anchorpoint or pipe support. The seal can only assume a sealing function
- The carrier pipes have to be centred and supported (fixed)
- We recommend reducing the respective maximum torques in case of particularly thin-walled plastic pipes such as flexible casing and corrugated pipes (see table below)
- For long clamping strokes, deep hexagon sockets are additionally required for installation
- All building and pipeline guidelines are to be observed
- Use only in suitable casings acc. table Installation tolerances with suitable sealing surface in the inner wall and suitable rigidity (dimensional stability after installation)

Tools

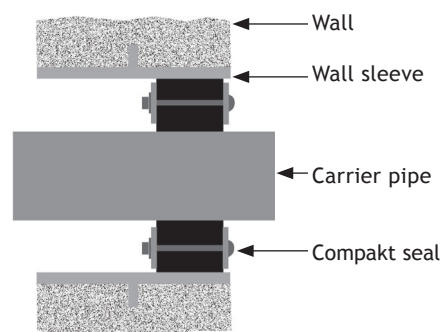
Cleaning material/preparation, measuring tool, torque wrench, marking aid.

Wall opening ID	Carrier pipe OD
50 mm	6 - 12 mm
70 mm	20 - 41 mm
80 mm	20 - 50 mm
100 mm	15 - 65 mm
125 mm	55 - 78 mm
150 mm	46 - 110 mm
200 mm	88 - 160 mm
250 mm	135 - 210 mm
300 mm	178 - 226 mm
350 mm	224 - 282 mm
400 mm	270 - 330 mm



FHRK Standard 20, 30, 40 (until core drilling <800 mm)
 FHRK Standard 20, 30, 40, 60 (Core drilling from 800 mm)

Nuts	Max. Torque	Torque for thin-walled plastic pipes	WR Super Soft	KTW Shore 67 ± 5
M 6	5 Nm	5 Nm	3 Nm	8 Nm
M 8	17 Nm for standard seal (Shore 43 ± 5)	8 Nm for standard seal (Shore 43 ± 5)	5 Nm	12 Nm
	20 Nm for special seals (Shore 50 ± 5)	15 Nm for special seals (Shore 50 ± 5)		
M 10	30 Nm	22 Nm	-	25 Nm
M 12	35 Nm	25 Nm	-	30 Nm



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Assembly of pipe or cable sizes

To peel off the onion rings, push the rings backward by hand or with a screwdriver (Fig. 1/2) and cut into the skin with a sharp knife (Fig. 3). Afterwards pull off the ring by hand (Fig. 4). Until the appropriate size is reached.



Retrofitting

If pipelines are already installed, the hinged version (Fig. 1) can be folded out, placed around the pipeline and securely locked with the lock. The split version with puzzle lock (Fig. 2) must be dismantled and mounted on the pipe before installation. Subsequent division of the rubber element (Fig. 3) must be carried out with a sharp cutter knife at an angle to the holes. Thus, the existing pipes and cables can be inserted into the sealing rubber, fix the pressure plates back on the rubber element and finish the installation.



The installation instruction of the prepared Varia Seal can be seen on the front!