LINK-SEAL® KIT BS 316

Flexible link chain for the sealing of wall penetrations for gas, water, sewage pipes and cables

AREA OF APPLICATION
Particularly soft rubber, especially suitable for plastic pipes. Use in normal atmosphere, water or humidity. Suitable for electrical isolation and cathodic corrosion protection. S 316: Resistant to water and against most inorganic (acids and alkalis) and organic substances.

MATERIAL
Material type: EPDM Rubber
Shore hardness: Shore A 40° ±5
Pressure plates: V2A
Bolts: V2A

PROPERTIES
Temperature range: -40 °C bis + 80 °C
UV-resistant: Yes
Pressure-tight: 3 bar
Color: blue
Electrical isolation: with a dielectric strength of 500 V/mm

SIZE
Core drilling 50 to 350 mm

Building construction | Civil engineering | Water | HVAC | Energy | Oil | Gas | Industry

PRODUCT INFORMATION

FEATURES
Easy and quick installation due to pre-assembled modules Different versions available for potable water, oil, fuel, solvents and high temperature resistance High quality rubber parts ensure long lifetime Protected position in the masonry Suitable for retrofitting Choice of galvanized 8.8 or stainless steel bolts A4-70 Color differentiation of the various rubber qualities Electrically isolating Hydrostatic sealing against pressing water

AREAS OF APPLICATION
For sealing wall penetrations of gas, Water, sewage pipes and cables (considering the calculation basis and the suitability of the product on site) Tank embeddings Casing pipe seals

PRODUCT DESCRIPTION
The radial expansion of the rubber parts ensures a permanent, pressure-tight and secure sealing of the annular space. For particularly thin-walled plastic pipes such as pre-insulated, flexible casing and corrugated pipe systems, a Compakt Temp or Compakt Super Soft is recommended.

NOTE

The surface of the core drilled holes should be coated to protect the reinforcement from corrosion. Therefore we recommend ProteX epoxy resin or ProteX sealant. The specified values for the pressure tightness are valid at 23 °C. For different, higher permanent operating temperatures, changing temperatures and permanent pressure, it might be necessary to fit an ejection safety device. Please be sure to ask us in advance about the technical feasibility of planned applications for which there is no description (e.g. applications in the biogas or food sector).

RECOMMENDATIONS

- PipeX FZH
- ProteX Epoxy Resin

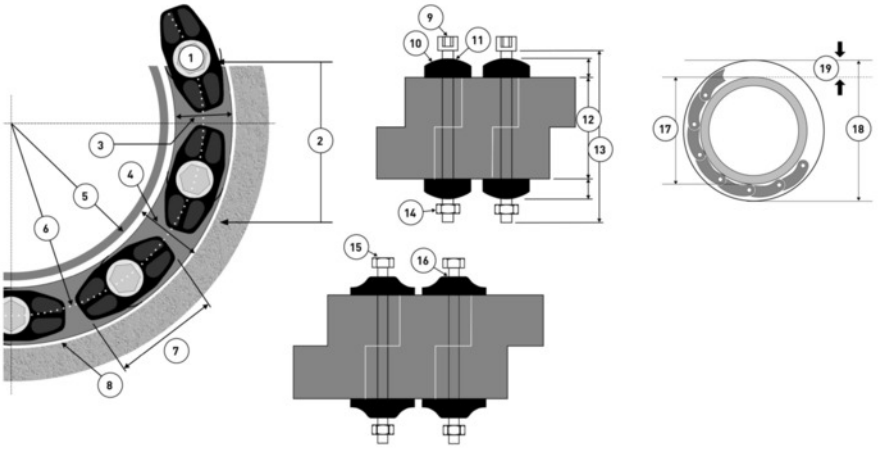
CERTIFICATES

TEXT

Lloyds Register: “Pressure Test for Wall Penetration Seal, Type LINK-SEAL® Modular Seal”; Certificate No: APE 0409369/1
Product certificate: - TUV SUD: Production facilities audit (annual) - TUV SUD: Technical report DDA4/118/94 Component testing of a modular seal
Production facility audit (annual):
FHRK quality seal FHRK test specifications GE 101 compakt seals: (Test report no. G 30 322-6-1), closed version Compakt Solo / Compakt Temp / Compakt Super Soft / Compakt with oversized flange / Compakt Multicable / Compakt Varia / Compakt Blind / Compakt SpeX / Compakt Combi
Drinking water applications: ACS: Certificate of sanitary conformity
Drinking water applications: Pressure plate testing Materials testing DVGW W270 KTW
Drinking water applications: Sealing elements material testing DVGW W270 UBA ELL
Drinking water applications: Radon seal test report Dr Joachim Kemski Radon seal LINK SEAL® W sealing material

TECHNICAL INFORMATION

The suitable LINK-SEAL® for the application results from the thickness of the annular space between the casing pipe (wall sleeve) and carrier pipe. The perfect LINK-SEAL® is smaller than the annular space in a non-tensioned condition and larger in tensioned- condition.
To calculate the appropriate LINK-SEAL® annular space seal, use our online calculation program or the type selection as a basis for calculation. This is available for you to download online as a PDF

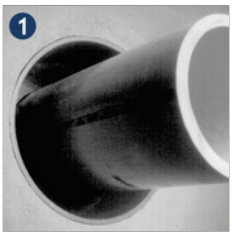


1 Hexagon nut	9 Allen head bolt	17 d = Medium pipe OD
2 Arc length	10 Pressure plate	18 D = Wall sleeve ID
3 Thickness non-tensioned	11 Compression assist boss	19 Annular space
4 Annular space	12 Height sealing element	
5 Outer diameter pipe	13 Total height element	
6 Bolt pitch circle	14 Hexagon nut	
7 Longer pressure plate	15 Allen head bolt (LS 325 & LS 360-700)	
8 ID Sleeve, casing pipe or core hole	16 Steel washers (LS 325 & LS 360-700)	

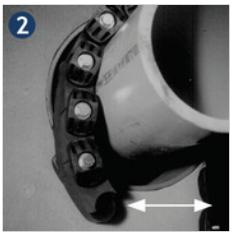
TYPE SELECTION

Article No.	Size	GTIN
2-020-02158	LS 50	4062987008802
2-020-02101	LS 80	4062987008543
2-020-02104	LS 100	4062987008574
2-020-02103	LS 100	4062987008567
2-020-02153	LS 100	4062987008789
2-020-02154	LS 125	4062987008796
2-020-02105	LS 125	4062987008581
2-020-02108	LS 150	4062987008611
2-020-02107	LS 150	4062987008604
2-020-02122	LS 200	4062987008741
2-020-02114	LS 200	4062987008673
2-020-02112	LS 200	4062987008659
2-020-02117	LS 250	4062987008703
2-020-02140	LS 250	4062987008772
2-020-02116	LS 250	4062987008697
2-020-02135	LS 250	4062987008765
2-020-02115	LS 250	4062987008680
2-020-02102	LS 275	4062987008550
2-020-02100	LS 275	4062987008536
2-020-02121	LS 300	4062987008734
2-020-02120	LS 300	4062987008727
2-020-02119	LS 300	4062987008710
2-020-02110	LS 310	4062987008635
2-020-02113	LS 340	4062987008666
2-020-02106	LS 340	4062987008598
2-020-02109	LS 340	4062987008628
2-020-02163	LS 350	4062987008840
2-020-02162	LS 350	4062987008833
2-020-02111	LS 475	4062987008642
2-020-02160	LS 500	4062987008819
2-020-02131	LS 575	4062987008758
2-020-02161	LS 575	4062987008826

INSTALLATION



1
Center the pipe, cable or conduit in wall opening or casing. Carrier pipes must be suitable, dimensionally stable and without damage in the sealing area. Make sure the pipe is adequately supported on both ends. The LINK-SEAL® can only perform a sealing function and does not serve as a pipe support or fixed point. All building and pipeline guidelines are to be observed



2
Use only in suitable wall sleeves, installation tolerances according to dimensions in the calculation program. The specified clamping ranges must be observed here. This also applies to the dimensions of the carrier pipes. With suitable sealing surface in the inner wall and suitable rigidity (dimensional stability after installation) of the wall sleeve. Loosen rear pressure plate with nutjust enough so links move freelytowards and away from each other connect both ends of belt.

3
Check to be sure bolt heads are facingthe installer. Extra slack or sag is normal. Do not remove links if extra slack exists. Note: On smaller diameter pipes, linksmay need to be stretched.

4
Slide belt assembly into annular space. For larger size belts, start inserting LINK-SEAL® modular seal assembly at the 6 o’clock position and work both sides up toward the 12 o’clock position in the annular space.

5
Slide belt assembly into annular space. For larger size belts, start inserting LINK-SEAL® modular seal assembly at the 6 o’clock position and work both sides up toward the 12 o’clock position in the annular space. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner. Make 2 or 3 more passes at 3 turns per bolt until links have been uniformly compressed and the max. torque moment (see table) is reached.

6
Repeat tightening after approx. 2 hours. Especially for LINK-SEAL®Type LS 500 up to LS 700 it might be necessary (depending on the installation conditions such as annular space, temperature, etc.) to tighten again for several times.

WHAT MUST BE OBSERVED

The PSI warranty is limited to the replacement of defective material.
The suitability of the product for the specific use must be checked by the user on his own responsibility. use.

WHAT NEEDS TO BE DONE

- Check that the sealing elements, the pipe surface and the inner wall of the core drill or wall sleeve are free of dirt and other contaminants.
- Make sure that the pipe is centered.
- Install the chain and ensure that the pressure plates are evenly aligned.
- install the exact number of segments specified.
- make sure the pipe is properly supported when backfilling.

WHAT THEY MUST NOT DO

- Do not install the chain until the pressure plates are aligned.
- Do not install LINK-SEAL® annular space seals on spiral pipes.
- Do not tighten one bolt before moving on to the next.
- do not use a cordless, impact or drill screwdriver.
- note that the LINK-SEAL® is not a fixed point.

INSTALLATION NOTE

We expressly draw your attention to the fact that the installation must be carried out by an authorized specialist company in accordance with the installation instructions.

RECOMMENDATION

To create a suitable sealing surface, we recommend coating the core holes with PSI KB epoxy resin. This serves to protect the concrete and to smooth out any shrinkage holes/scoring.

TOOLS

Cleaning material/preparation, measuring tool, torque wrench, aids for markings