

CUSTOMIZED SOLUTIONS

The added value offered by Profiltra is found particularly in our customized solutions. Though products may be standard, there are rarely standard solutions. Each solution is unique and requires other specifications. Our service includes engineering, project support, coaching and guidance, CAD-drawings, assembly and disassembly, various processings in our own production unit, laboratory tests and audits. And in this way solutions are developed that work.

LINK - SEAL



Additives



Filtration



Seals



Piping Technology



Refractories



Pigments

The performance-mix of Profiltra

- Products from preferred suppliers
- Professionals advising professionals
- Performance and teamwork as founding principles

Profiltra

Technical advice and solutions that help you improve your process performance.

Because you do not only demand the best quality materials, but also appreciate advice from people who are expert in their business. Who understand exactly what you and your in-house experts mean. Experts who know what it takes to ensure that your processes run at maximum efficiency. Experts who think in terms of solutions.



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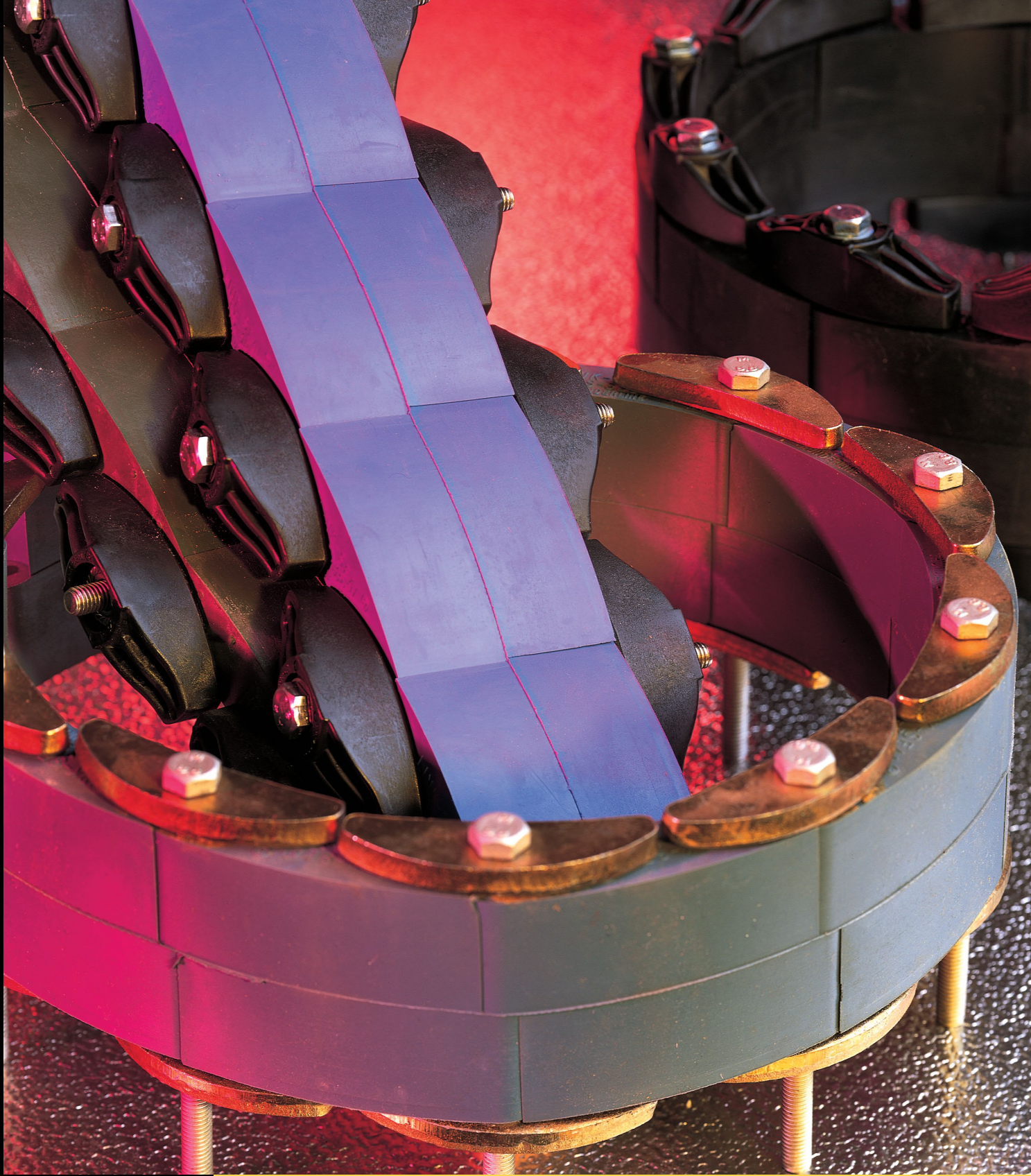


profiltra
customized solutions

PIPING TECHNOLOGY



LINK - SEAL





LINK-SEALS

Save time and money

Link-Seals modular seals are designed for use as a permanent seal for almost any cylindrical object. They are easy to install and save up to 75% time compared to alternative seals.

Perfect seals

The best way to permanently seal almost any cylindrical object, of any size, passing through any type of concrete barrier (wall, floor or ceiling) is to use Link-Seal. Link-Seals are rubber elements with corrosion resistant bolts and nuts. Since the rubber sealing elements expand when the bolts are tightened, the Link-Seals will prevent to a considerable extent both angular misalignment and eccentricity while still forming an efficient gas and watertight hydrostatic seal.



STANDARD

Standard seal for general applications. Provides electrical isolation.

- Temperature range: -40°C to 80°C
- Seal element: EPDM
- Color: black
- Pressure plate: reinforced nylon polymer 6.6 reinforced with 30% glass

Type C

Bolts & nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating
Applications: water, direct ground burial and atmospheric conditions

Type S-316

Bolts & nuts: 316 Stainless Steel
Application: chemical processing, food and paper, water and waste water treatment



SPECIAL

Softer seal for plastic pipes.

- Temperature range: -40°C to 80°C
- Seal element: EPDM
- Color: blue
- Pressure Plates: reinforced nylon polymer 6.6, reinforced with 30% glass

Type BC

Bolts & nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating
Application: water, direct ground burial and atmospheric conditions

Type BX-316

Bolts & nuts: 316 Stainless Steel
Application: chemical processing, food and paper, water and waste water treatment



OIL RESISTANT

Nitrile rubber is resistant to oils, fuel and many solvents.

- Temperature range: -40°C to 80°C
- Seal element: Nitrile rubber
- Color: green
- Pressure plates: reinforced nylon polymer 6.6 with 30% glass reinforced

Type O

Bolts & nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating
Application: gasoline, motor oil, kerosene, methane, jet fuel, hydraulic fluid, water

Type OS-316

Bolts & nuts: 316 Stainless Steel
Application: gasoline, motor oil, kerosene, methane, jet fuel, hydraulic fluid, water



HIGH TEMPERATURE

High temperature and fire retardant

- Temperature range: -55°C to 205°C
- Seal element: Silicone
- Color: grey
- Pressure plates: steel Zinc Dichromate

Type T

Bolts & nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating
Application: extreme temperatures. One hour fire retardant (ASTM E814-51)

Type FD

Bolts & nuts: Steel with 2-part Zinc Dichromate & proprietary corrosion inhibiting coating
Application: Three hours fire retardant at max 1030°C. Protection against flames, fumes and gasses

Pressure resistant up to 4 bar when correctly installed

Due to the flexible rubber body Link-Seals are able to absorb shocks, sounds and vibrations. Furthermore the elements compensate both angular misalignment and eccentricity.

Long seal life

Link-Seals are designed for use as a permanent seal. Seal elements are specially compounded to resist aging and damage from ozone, sunlight, water and a wide range of chemicals.

Seals for every application

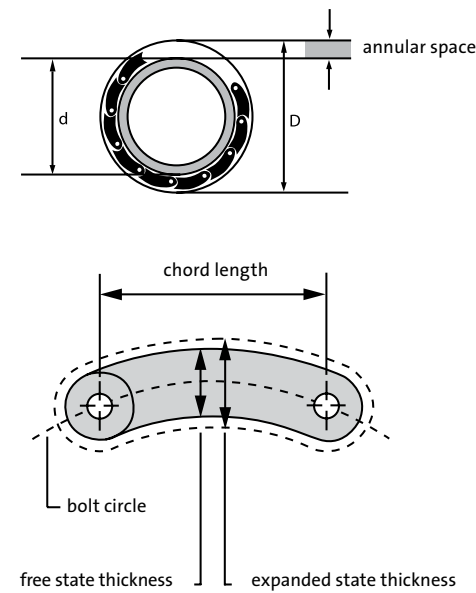
Available in nine different models and three elastomers to create the perfect seal. Link-Seals are being used for iron, steel, copper as well as plastic pipes, conduits or cables. Standard sizes from 0.58" to 72" diameter, depending on the number of elements used. Temperature range from -40° C till +120°C. Specials available for temperatures between -55°C till 205°C.

CHOOSING THE RIGHT SEAL

Use the following method to select the correct Link-Seal. Calculate the annular space. The annular space is half the difference between the actual pipe O.D. and the actual wall opening I.D. . If you have selected the correct size Link-Seal modular seal, the free state thickness should be less than the annular space and the expanded state thickness should be more than the annular space (column 2 and 3).

$$\frac{\text{Wall Opening I.D. (D)} - \text{Actual Pipe O.D (d)}}{2} = \text{Annular Space}$$

Select from the chart below the size closest to the annular space calculated. Usually more choices can be made due to size overlap.



	1	2	3	4	5	6	7	8
Type	free state thickness	expanded state thickness	chord length	outer diameter from	outer diameter till	minimum no. of links	minimum required Seating width	
LS 200	12,7	16	30	21,3	323,9	4	75	
LS 265	16	20	42,4	50	406,4	4	75	
LS 275	16	20	25,6	0	90	4	75	
LS 300	18	22,5	41	44,5	406,4	5	100	
LS 310	18	22,5	57,1	60,3	406,4	5	100	
LS 315	21,1	26	38,4	37	315	5	100	
LS 325	23,2	30	79,8	133	711	6	120	
LS 340	25,5	34	41,4	14	323,9	4	120	
LS 360	32	42	55,1	16	406,4	4	120	
LS 400	36,3	46	93,1	139,7	1220	6	140	
LS 410	37	48,5	67,6	44,5	323,9	4	140	
LS 425	28,4	37	93,1	144	1220	6	140	
LS 440	44	55	99	100	1220	5	140	
LS 475	41,3	48,5	68,6	60,3	1220	5	140	
LS 500	60,3	71,5	99,8	100	1220	5	150	
LS 525	55,4	63,5	99,8	133	1220	6	150	
LS 575	48	58	79,5	130	1220	5	150	
LS 615	81,6	102	155,5	219	3000	6	150	
LS 650	69	84	106,7	153	1220	5	150	

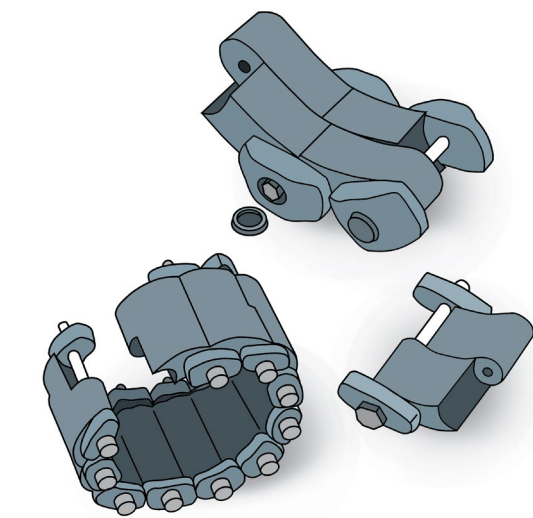
sizes in millimeters

If you have selected the proper type of Link-Seal, the dimensions of the selected pipe diameter should be between the 'outer diameter from' (column 5) and the 'outer diameter till' (column 6). To determine required number of links per Link-Seal modular seal assembly, use the following calculation:

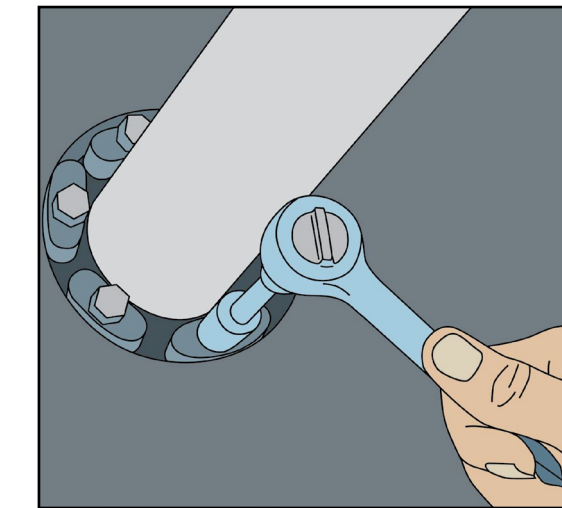
$$\frac{\text{Wall Opening I.D. (D)} + \text{Pipe Diameter O.D. (d)}}{2} \times 3,14 = \frac{\text{Bolt Circle : Chord Length}}{\text{.....}} = \frac{\text{Links per Seal}}{\text{.....}}$$

The result must be minimal equal to the mentioned minimum number of links (column 7). The result must be rounded down <0,5 or rounded up >=0,5. The end result should be as near as possible to a complete link.

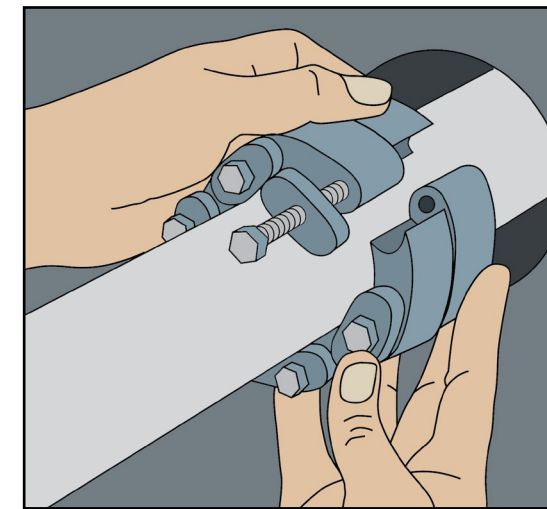
INSTALLATION



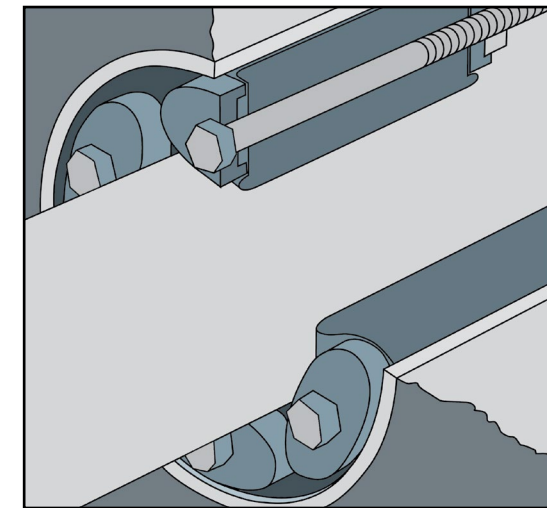
Link-Seals are delivered pre-assembled as a chain of rubber links.



2. Slide belt assembly into annular space. The seal bolt heads have to be recessed below the wall opening.



1. Loosen the rear pressure plate with nut just enough to enable the links to move freely. Connect both ends of the belt around the pipe or cable. Number of links are indicated in the size chart.



3. Use a hand socket or off-set wrench only. Start at 12 o'clock. Do not tighten any bolt more than 4 turns at a time. Continue in a clockwise manner until links have been equally compressed.

We urgently advise you to use hand tools only!

Information about products (construction, sizes etc) are only indicative and without further obligations. We are free to add modifications in case of development and improvement of our production. Our warranty is limited to damaged material found to be defective by production. The purchaser accepts full responsibility for purchased goods and installation of all goods furnished and for any defects or damage suffered as a result of defective installation of such goods.