

SLIPSIL®

SEALING PLUGS FOR METALLIC/ GRP/PLASTIC PIPES & CABLES



TESTED TO IMO RESOLUTION A.754(I8);
FIRE CLASS AO-A60
EC (MED) CERTIFICATE
MED-B-5067 ISSUED BY DNV

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BEELE ENGINEERING - SAFETY, RELIABILITY, INVOLVEMENT

Every moment of the day, in every business and every situation, the threat of fire is present. For over three decades, BEELE Engineering has specialized in passive fire safety in the form of systems which prevent the spread of fire, smoke, water and gases via cable and pipe penetrations. With our superior sealing technologies, we have become the undisputed Number One in this particular field.

It is BEELE Engineering's philosophy that R&D exists to respond to market demands. Only then can research and development activities be classed as functional. Only then are innovative solutions generated for problems that have current or near-term relevance. Our policy is one of continuous active response to customers' demands, or to modified or new functional requirements. We listen, we observe and we interpret, and so we arrive at new product developments and bold innovations.

BEELE Engineering has built up an enormous body of specialized expertise and knowledge. Our company is the world market leader in sealing systems for state-of-the-art shipbuilding applications as well as civil and industrial applications. We do not follow trends, we set them.

Development of new products and technologies, as well as pioneering know-how, are present in every fibre of our organization. We are driven by passion for our specialization, and our customer involvement drives us to exceed the boundaries of what is technically feasible.

BEELE Engineering operates world-wide. From our agencies in virtually every industrialized country, our support and services are always somewhere nearby. We are there for you – also for on-site advice or in-house demonstrations, instructions and support at your location.



Our development, test and production facilities are among the most advanced in the world. The factory is equipped with state of the art machines, which are tailor made to the requirements of our company. We work to a high-level ISO system, with unmatched involvement. Continuous investment in design technologies, combined with highest quality polymers, is our guarantee for the safety of lives and equipment. That is why BEELE Engineering is internationally recognized by all relevant certification institutes and classification societies.

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

BEELE Engineering is dedicated to fire safety. From the pictures below the text, it might be clear that fire prevention is not child's play, nor can it just be disregarded. In a fire, the partitions can get so hot that even approaching them is impossible. Right then it is of utmost importance that the cable and pipe penetration seals stop the spread of fire and smoke to adjacent areas. To address this problem, BEELE Engineering has developed the NOFIRNO® technology. The cable and pipe penetrations, based on this technology, have been tested successfully for A- and H-class, A-0 and H-0 class and Jet Fires.



The NOFIRNO® rubber grade, which is compounded under strict conditions in our factory, is suitable for gas and water tight ducting and for fire rated applications as well.

We have been involved with fire resistant rubbers for decades. The drawbacks of certain fire resistant rubbers are halogen content, hardness of the highly filled rubbers, hardening during lifetime, and high permanent deformation sets. All these disadvantages will have an impact on performance in the long run.

NOFIRNO® rubber does not have the above mentioned drawbacks. The processing conditions for optimized compounding in our factory assure highest performance of the rubber. NOFIRNO® rubber is

traceable to prevent counterfeiting and to guarantee users the proven NOFIRNO® quality.

By way of surface charring and the rubber residues inside the product, it can easily be determined whether or not NOFIRNO® has been used (even after a fire).

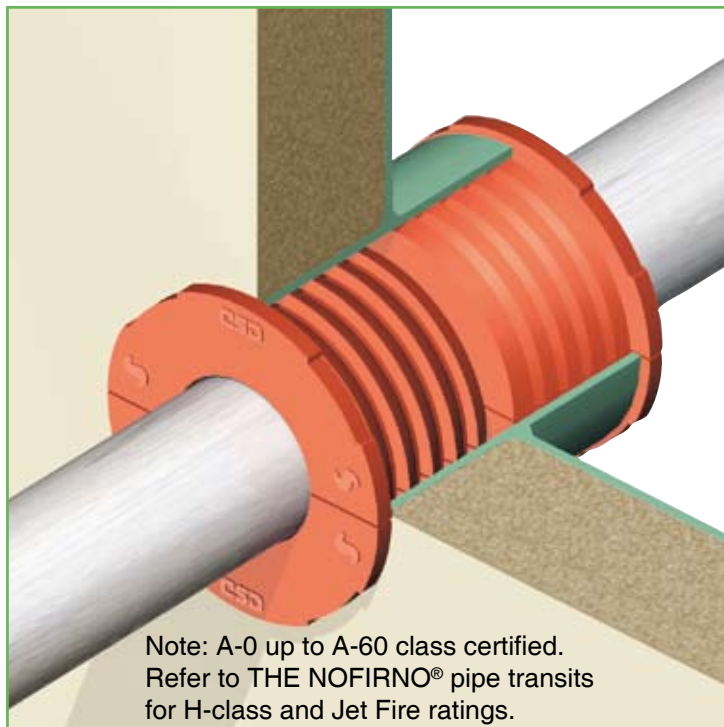
1) the NOFIRNO® rubber shows minimum permanent deformation and limited stress relaxation, guaranteeing mechanical stability in the long term.

2) The NOFIRNO® rubber can be exposed to high temperatures (up to 180 °C), making the NOFIRNO® sealing system suitable for steam lines.

3) NOFIRNO® stays flexible at temperatures of -50 °C, allowing application in arctic environments.

4) The NOFIRNO® sealant/rubber has optimum fire stopping properties:

- a) creates immediately a protective layer at the fire side
 - b) will not be consumed under fire exposure
 - c) prevents smoke emission
- 5) Higher thermal insulation values under fire load.



Note: A-0 up to A-60 class certified.
Refer to THE NOFIRNO® pipe transits for H-class and Jet Fire ratings.

6) Shorter conduit depths.

7) Approved for A-0 and H-0 class without the use of any insulation. Certified up to A-60 and H-120 class.

8) Successfully exposed to a 2 hour Jet Fire test.

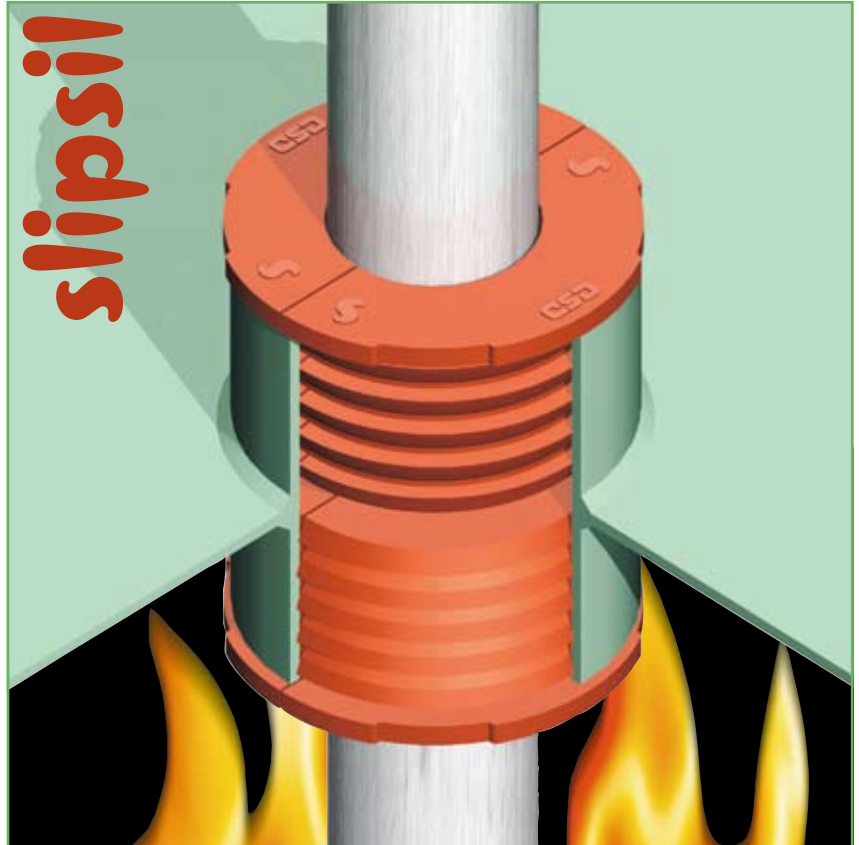
9) Can be combined with RISE® and RISE®/ULTRA.



SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

FIRE SAFETY WITHOUT ANY EXTRAS - NOW ACHIEVABLE

Synthetic rubbers are combustible. Rubber grades can be made only more or less fire retardant with the help of fire suppressant ingredients. The drawback of filling rubbers with large amounts of additives is that the mechanical properties might suffer. The hardness of the vulcanized products of such compounds might be reasonably high. Both features have an impact on the sealing capacity and the long term behaviour. Hardening and permanent deformation of the product during service life also have a negative impact on performance. NOFIRNO® rubber is halogen free, does not harden during service life, has outstanding weathering properties, does not shrink during fire exposure, has an oxygen index of 55% (>30% is flame retardant) and a low smoke index. NOFIRNO® rubber can be used in a very wide temperature range (-50 °C - +180 °C). Optimum fire safety guaranteed.

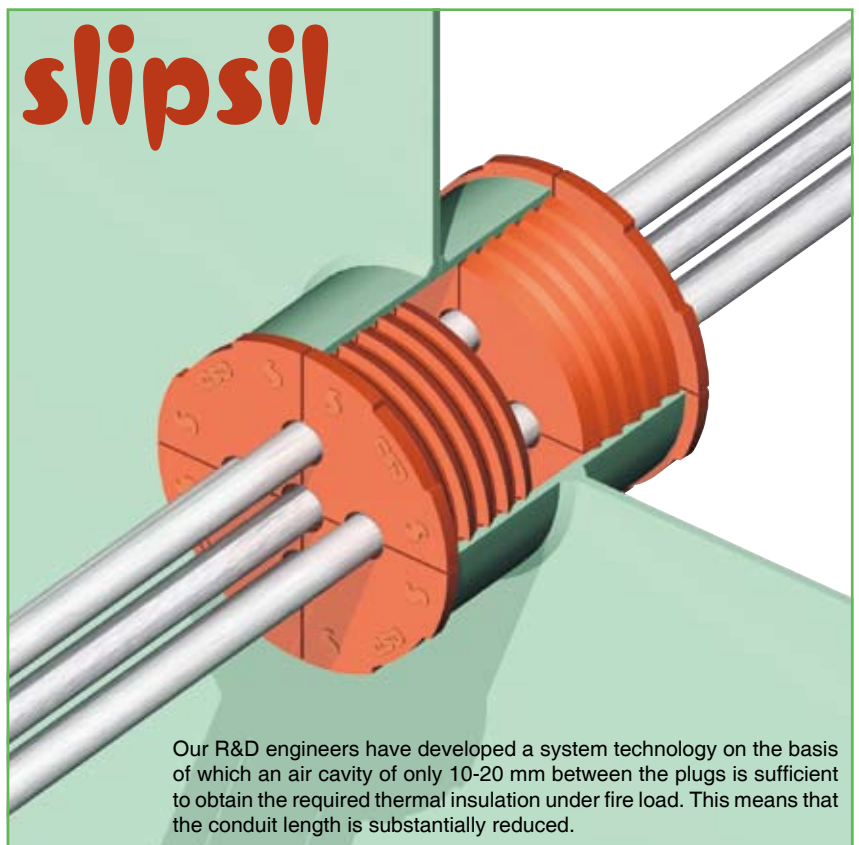


Because the plugs prevent direct contact between the service pipe and the sleeve, different types of pipes can be passed through steel or aluminium constructions without the problems of joints and electric couples.

Pipe penetrations sealed with plugs can be shorter in length than the common methods, in this way saving weight. With the use of SLIPSIL® sealing plugs, vibrations and noise transmission will be easily absorbed. Another advantage of the SLIPSIL® sealing plugs is that mechanical tensions between the bulkhead/deck and the service pipes are avoided. SLIPSIL® offers the possibility of using various pipe materials!

The plugs offer also a high degree of water tightness!

The design of the SLIPSIL® plugs is based on the LEAXEAL® technology, developed by BEELE Engineering, to obtain longest service life and highest tightness ratings.



Our R&D engineers have developed a system technology on the basis of which an air cavity of only 10-20 mm between the plugs is sufficient to obtain the required thermal insulation under fire load. This means that the conduit length is substantially reduced.

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES



PLUG SERIES	CONDUIT SLEEVE	PLUG LENGTH	PIPE DIAMETER
25	24.5 - 25.6	54	5 - 12
27	26.5 - 27.6	54	5 - 15
28	27.5 - 28.5	54	5 - 15
30	29.5 - 30.5	54	5 - 16
32	31.5 - 32.5	54	5 - 16
34	33.5 - 34.5	54	5 - 18
35	34.5 - 35.7	54	5 - 20
37	36.5 - 37.7	54	5 - 20
40	39.5 - 40.7	54	5 - 22
41	40.5 - 41.7	54	5 - 25
43	42.5 - 43.7	54	5 - 28
50	49.5 - 50.7	66	6 - 32
53	52.0 - 53.7	66	6 - 34
55	54.0 - 55.7	66	6 - 34
57	56.0 - 57.7	66	14 - 40
60	59.0 - 60.7	66	14 - 40
62	61.0 - 62.7	66	14 - 40
67	66.0 - 67.7	66	22 - 50
68	67.0 - 68.7	66	20 - 50
70	69.0 - 70.7	66	22 - 50
75	74.0 - 75.7	66	22 - 50
78	77.0 - 78.7	66	22 - 50
80	79.0 - 80.7	66	28 - 60
82	81.0 - 82.7	66	28 - 60
90	89.0 - 90.7	66	40 - 64
94	93.0 - 94.7	66	40 - 64
97	96.0 - 97.7	66	40 - 64
100	99.0 - 100.7	66	40 - 75
102	101.0 - 102.7	66	40 - 75
103	102.0 - 103.7	66	26 - 75
105	104.0 - 105.7	66	40 - 75
107	106.0 - 107.7	66	40 - 76
110	109.0 - 110.7	66	48 - 80
118	117.5 - 119.2	66	60 - 90
122	121.0 - 122.7	66	60 - 92
125	124.0 - 125.7	66	60 - 92
128	127.0 - 128.7	66	60 - 92
131	130.5 - 132.2	66	60 - 92
146	145.0 - 146.7	79	88 - 120
150	149.0 - 150.7	79	88 - 125
152	151.0 - 152.7	79	88 - 125
154	153.0 - 154.7	79	88 - 125
156	155.0 - 156.7	79	88 - 125
160	159.0 - 160.7	79	88 - 125
190	189.0 - 190.7	79	110-160
200	199.0 - 200.7	79	110-160
203	202.0 - 203.7	79	110-168
207	206.0 - 207.7	79	110-168
250	249.0 - 250.7	91	160-200
260	259.0 - 260.7	91	160-219
300	299.0 - 300.7	91	160-250

To select the right type of sealing plug, look for the plug series to be used on the basis of the outer diameter of the service pipe. Then make a choice for the plug type in the table of the selected plug series.

For instance: a copper pipe of 42 mm OD has to be ducted. Select the plug series on the basis of the ID of the conduit sleeve to be used and the OD of the ducted pipe (67 up to 107 can be your choice). When a conduit sleeve 88.9x3.2 mm (ID = 82.5 mm) will be used a sealing plug 82/42-44 is the right choice. If a 54 mm OD copper pipe has to be ducted through a sleeve with an ID of 107.1 mm, plug type 107/54-56 has to be selected. See the tables of the series 82 and 107 on pages 7 and 8.

Note: the sealing plugs with a thin wall (like for instance 53/34) are not easy to install in undersized conduit openings. It is advisable to select a larger plug series (for instance 60/34-36).



SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
blind	25/0	40.0100	blind	34/0	40.0600	18-20	40/18-20	40.0915
5-6	25/5-6	40.0105	5-6	34/5-6	40.0605	20-21	40/20-21	40.0916
6-7	25/6-7	40.0106	6-7	34/6-7	40.0606	21-22	40/21-22	40.0917
7-8	25/7-8	40.0107	7-8	34/7-8	40.0607	22	40/22	40.0918
8-9	25/8-9	40.0108	8-9	34/8-9	40.0608	<i>40 multi is max. 2x10, 3x7, 5x7</i>		
9-10	25/9-10	40.0109	9-10	34/9-10	40.0609	blind	41/0	40.1000
10-11	25/10-11	40.0110	10-11	34/10-11	40.0610	5-6	41/5-6	40.1005
11-12	25/11-12	40.0111	11-12	34/11-12	40.0611	6-7	41/6-7	40.1006
12	25/12	40.0112	12-13	34/12-13	40.0612	7-8	41/7-8	40.1007
blind	27/0	40.0200	13-14	34/13-14	40.0613	8-9	41/8-9	40.1008
5-6	27/5-6	40.0205	14-15	34/14-15	40.0614	9-10	41/9-10	40.1009
6-7	27/6-7	40.0206	15-16	34/15-16	40.0615	10-11	41/10-11	40.1010
7-8	27/7-8	40.0207	16-17	34/16-17	40.0616	11-12	41/11-12	40.1011
8-9	27/8-9	40.0208	17-18	34/17-18	40.0617	12-14	41/12-14	40.1012
9-10	27/9-10	40.0209	18	34/18	40.0618	14-16	41/14-16	40.1013
10-11	27/10-11	40.0210	blind	35/0	40.0700	16-18	41/16-18	40.1014
11-12	27/11-12	40.0211	5-6	35/5-6	40.0705	18-20	41/18-20	40.1015
12-13	27/12-13	40.0212	6-7	35/6-7	40.0706	20-22	41/20-22	40.1016
13-14	27/13-14	40.0213	7-8	35/7-8	40.0707	22-23	41/22-23	40.1017
14-15	27/14-15	40.0214	8-9	35/8-9	40.0708	23-24	41/23-24	40.1018
15	27/15	40.0215	9-10	35/9-10	40.0709	24-25	41/24-25	40.1019
blind	28/0	40.0300	10-11	35/10-11	40.0710	25	41/25	40.1020
5-6	28/5-6	40.0305	11-12	35/11-12	40.0711	<i>41 multi is max. 2x10, 3x7, 5x7</i>		
6-7	28/6-7	40.0306	12-13	35/12-13	40.0712	blind	43/0	40.1100
7-8	28/7-8	40.0307	13-14	35/13-14	40.0713	5-6	43/5-6	40.1105
8-9	28/8-9	40.0308	14-15	35/14-15	40.0714	6-7	43/6-7	40.1106
9-10	28/9-10	40.0309	15-16	35/15-16	40.0715	7-8	43/7-8	40.1107
10-11	28/10-11	40.0310	16-17	35/16-17	40.0716	8-9	43/8-9	40.1108
11-12	28/11-12	40.0311	17-18	35/17-18	40.0717	9-10	43/9-10	40.1109
12-13	28/12-13	40.0312	18-19	35/18-19	40.0718	10-12	43/10-12	40.1110
13-14	28/13-14	40.0313	19-20	35/19-20	40.0719	12-14	43/12-14	40.1111
14-15	28/14-15	40.0314	20	35/20	40.0720	14-16	43/14-16	40.1112
15	28/15	40.0315	blind	37/0	40.0800	16-18	43/16-18	40.1113
blind	30/0	40.0400	5-6	37/5-6	40.0805	18-20	43/18-20	40.1114
5-6	30/5-6	40.0405	6-7	37/6-7	40.0806	20-22	43/20-22	40.1115
6-7	30/6-7	40.0406	7-8	37/7-8	40.0807	22-24	43/22-24	40.1116
7-8	30/7-8	40.0407	8-9	37/8-9	40.0808	24-25	43/24-25	40.1117
8-9	30/8-9	40.0408	9-10	37/9-10	40.0809	25-26	43/25-26	40.1118
9-10	30/9-10	40.0409	10-11	37/10-11	40.0810	26-27	43/26-27	40.1119
10-11	30/10-11	40.0410	11-12	37/11-12	40.0811	27-28	43/27-28	40.1120
11-12	30/11-12	40.0411	12-13	37/12-13	40.0812	28	43/28	40.1121
12-13	30/12-13	40.0412	13-14	37/13-14	40.0813	<i>43 multi is max. 2x10, 3x7, 5x7</i>		
13-14	30/13-14	40.0413	14-15	37/14-15	40.0814	blind	50/0	40.1200
14-15	30/14-15	40.0414	15-16	37/15-16	40.0815	6-7	50/6-7	40.1205
15-16	30/15-16	40.0415	16-17	37/16-17	40.0816	7-8	50/7-8	40.1206
16	30/16	40.0416	17-18	37/17-18	40.0817	8-9	50/8-9	40.1207
blind	32/0	40.0500	18-19	37/18-19	40.0818	9-10	50/9-10	40.1208
5-6	32/5-6	40.0505	19-20	37/19-20	40.0819	10-12	50/10-12	40.1209
6-7	32/6-7	40.0506	20	37/20	40.0820	12-14	50/12-14	40.1210
7-8	32/7-8	40.0507	blind	40/0	40.0900	14-16	50/14-16	40.1211
8-9	32/8-9	40.0508	5-6	40/5-6	40.0905	16-18	50/16-18	40.1212
9-10	32/9-10	40.0509	6-7	40/6-7	40.0906	18-20	50/18-20	40.1213
10-11	32/10-11	40.0510	7-8	40/7-8	40.0907	20-22	50/20-22	40.1214
11-12	32/11-12	40.0511	8-9	40/8-9	40.0908	22-24	50/22-24	40.1215
12-13	32/12-13	40.0512	9-10	40/9-10	40.0909	24-26	50/24-26	40.1216
13-14	32/13-14	40.0513	10-11	40/10-11	40.0910	26-28	50/26-28	40.1217
14-15	32/14-15	40.0514	11-12	40/11-12	40.0911	28-29	50/28-29	40.1218
15-16	32/15-16	40.0515	12-14	40/12-14	40.0912	29-30	50/29-30	40.1219
16	32/16	40.0516	14-16	40/14-16	40.0913	30-31	50/30-31	40.1220
			16-18	40/16-18	40.0914	31-32	50/31-32	40.1221

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
32	50/32	40.1222	40	57/40	40.1526	30-32	68/30-32	40.1919
	<i>50 multi is max. 2x15, 3x8, 5x8</i>					32-34	68/32-34	40.1920
blind	53/0	40.1300	blind	60/0	40.1600	34-36	68/34-36	40.1921
6-7	53/6-7	40.1305	14-16	60/14-16	40.1611	36-38	68/36-38	40.1922
7-8	53/7-8	40.1306	16-18	60/16-18	40.1612	38-40	68/38-40	40.1923
8-9	53/8-9	40.1307	18-20	60/18-20	40.1613	40-42	68/40-42	40.1924
9-10	53/9-10	40.1308	20-22	60/20-22	40.1614	42-44	68/42-44	40.1925
10-12	53/10-12	40.1309	22-24	60/22-24	40.1615	44-46	68/44-46	40.1926
12-14	53/12-14	40.1310	24-26	60/24-26	40.1616	46-48	68/46-48	40.1927
14-16	53/14-16	40.1311	26-28	60/26-28	40.1617	48-50	68/48-50	40.1928
16-18	53/16-18	40.1312	28-30	60/28-30	40.1618	50	68/50	40.1929
18-20	53/18-20	40.1313	30-32	60/30-32	40.1619		<i>68 multi is max. 2x22, 3x12, 5x12</i>	
20-22	53/20-22	40.1314	32-34	60/32-34	40.1620	blind	70/0	40.2000
22-24	53/22-24	40.1315	34-36	60/34-36	40.1621	20-22	70/20-22	40.2014
24-26	53/24-26	40.1316	36-37	60/36-37	40.1622	22-24	70/22-24	40.2015
26-28	53/26-28	40.1317	37-38	60/37-38	40.1623	24-26	70/24-26	40.2016
28-30	53/28-30	40.1318	38-39	60/38-39	40.1624	26-28	70/26-28	40.2017
30-31	53/30-31	40.1319	39-40	60/39-40	40.1625	28-30	70/28-30	40.2018
31-32	53/31-32	40.1320	40	60/40	40.1626	30-32	70/30-32	40.2019
32-33	53/32-33	40.1321		<i>60 multi is max. 2x15, 3x10</i>		32-34	70/32-34	40.2020
33-34	53/33-34	40.1322	blind	62/0	40.1700	34-36	70/34-36	40.2021
34	53/34	40.1323	14-16	62/14-16	40.1711	36-38	70/36-38	40.2022
	<i>53 multi is max. 2x15, 3x10, 5x10</i>		16-18	62/16-18	40.1712	38-40	70/38-40	40.2023
blind	55/0	40.1400	18-20	62/18-20	40.1713	40-42	70/40-42	40.2024
6-7	55/6-7	40.1405	20-22	62/20-22	40.1714	42-44	70/42-44	40.2025
7-8	55/7-8	40.1406	22-24	62/22-24	40.1715	44-46	70/44-46	40.2026
8-9	55/8-9	40.1407	24-26	62/24-26	40.1716	46-48	70/46-48	40.2027
9-10	55/9-10	40.1408	26-28	62/26-28	40.1717	48-50	70/48-50	40.2028
10-12	55/10-12	40.1409	28-30	62/28-30	40.1718	50	70/50	40.2029
12-14	55/12-14	40.1410	30-32	62/30-32	40.1719		<i>70 multi is max. 2x22, 3x12</i>	
14-16	55/14-16	40.1411	32-34	62/32-34	40.1720	blind	75/0	40.2100
16-18	55/16-18	40.1412	34-36	62/34-36	40.1721	22-24	75/22-24	40.2115
18-20	55/18-20	40.1413	36-37	62/36-37	40.1722	24-26	75/24-26	40.2116
20-22	55/20-22	40.1414	37-38	62/37-38	40.1723	26-28	75/26-28	40.2117
22-24	55/22-24	40.1415	38-39	62/38-39	40.1724	28-30	75/28-30	40.2118
24-26	55/24-26	40.1416	39-40	62/39-40	40.1725	30-32	75/30-32	40.2119
26-28	55/26-28	40.1417	40	62/40	40.1726	32-34	75/32-34	40.2120
28-30	55/28-30	40.1418		<i>62 multi is max. 2x15, 3x10</i>		34-36	75/34-36	40.2121
30-31	55/30-31	40.1419	blind	67/0	40.1800	36-38	75/36-38	40.2122
31-32	55/31-32	40.1420	22-24	67/22-24	40.1815	38-40	75/38-40	40.2123
32-33	55/32-33	40.1421	24-26	67/24-26	40.1816	40-42	75/40-42	40.2124
33-34	55/33-34	40.1422	26-28	67/26-28	40.1817	42-44	75/42-44	40.2125
34	55/34	40.1423	28-30	67/28-30	40.1818	44-46	75/44-46	40.2126
	<i>55 multi is max. 2x15, 3x10, 5x10</i>		30-32	67/30-32	40.1819	46-48	75/46-48	40.2127
blind	57/0	40.1500	32-34	67/32-34	40.1820	48-50	75/48-50	40.2128
14-16	57/14-16	40.1511	34-36	67/34-36	40.1821	50	75/50	40.2129
16-18	57/16-18	40.1512	36-38	67/36-38	40.1822			
18-20	57/18-20	40.1513	38-40	67/38-40	40.1823	blind	78/0	40.2200
20-22	57/20-22	40.1514	40-42	67/40-42	40.1824	22-24	78/22-24	40.2215
22-24	57/22-24	40.1515	42-44	67/42-44	40.1825	24-26	78/24-26	40.2216
24-26	57/24-26	40.1516	44-46	67/44-46	40.1826	26-28	78/26-28	40.2217
26-28	57/26-28	40.1517	46-48	67/46-48	40.1827	28-30	78/28-30	40.2218
28-30	57/28-30	40.1518	48-50	67/48-50	40.1828	30-32	78/30-32	40.2219
30-32	57/30-32	40.1519	50	67/50	40.1829	32-34	78/32-34	40.2220
32-34	57/32-34	40.1520	blind	68/0	40.1900	34-36	78/34-36	40.2221
34-36	57/34-36	40.1521	20-22	68/20-22	40.1914	36-38	78/36-38	40.2222
36-37	57/36-37	40.1522	22-24	68/22-24	40.1915	38-40	78/38-40	40.2223
37-38	57/37-38	40.1523	24-26	68/24-26	40.1916	40-42	78/40-42	40.2224
38-39	57/38-39	40.1524	26-28	68/26-28	40.1917	42-44	78/42-44	40.2225
39-40	57/39-40	40.1525	28-30	68/28-30	40.1918	44-46	78/44-46	40.2226
						46-48	78/46-48	40.2227



SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES




cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
48-50	78/48-50	40.2228	blind	94/0	40.2600	60-62	102/60-62	40.2930
50-52	78/50-52	40.2229	40-42	94/40-42	40.2620	62-64	102/62-64	40.2931
52-53	78/52-53	40.2230	42-44	94/42-44	40.2621	64-66	102/64-66	40.2932
53-54	78/53-54	40.2231	44-46	94/44-46	40.2622	66-68	102/66-68	40.2933
54	78/54	40.2232	46-48	94/46-48	40.2623	68-70	102/68-70	40.2934
<i>78 multi is max. 2x22, 3x15, 5x15</i>			48-50	94/48-50	40.2624	70-72	102/70-72	40.2935
blind	80/0	40.2300	50-52	94/50-52	40.2625	72-74	102/72-74	40.2936
28-30	80/28-30	40.2318	52-54	94/52-54	40.2626	74-75	102/74-75	40.2937
30-32	80/30-32	40.2319	54-56	94/54-56	40.2627	75	102/75	40.2938
32-34	80/32-34	40.2320	56-58	94/56-58	40.2628	blind	103/0	40.3000
34-36	80/34-36	40.2321	58-60	94/58-60	40.2629		103/26-28	40.3013
36-38	80/36-38	40.2322	60-62	94/60-62	40.2630		103/28-30	40.3014
38-40	80/38-40	40.2323	62-64	94/62-64	40.2631		103/40-42	40.3020
40-42	80/40-42	40.2324	64	94/64	40.2632		103/42-44	40.3021
42-44	80/42-44	40.2325	blind	97/0	40.2700		103/44-46	40.3022
44-46	80/44-46	40.2326	40-42	97/40-42	40.2720		103/46-48	40.3023
46-48	80/46-48	40.2327	42-44	97/42-44	40.2721		103/48-50	40.3024
48-50	80/48-50	40.2328	44-46	97/44-46	40.2722		103/50-52	40.3025
50-52	80/50-52	40.2329	46-48	97/46-48	40.2723		103/52-54	40.3026
52-54	80/52-54	40.2330	48-50	97/48-50	40.2724	all dimensions in mm	103/54-56	40.3027
54-56	80/54-56	40.2331	50-52	97/50-52	40.2725		103/56-58	40.3028
56-58	80/56-58	40.2332	52-54	97/52-54	40.2726		103/58-60	40.3029
58-60	80/58-60	40.2333	54-56	97/54-56	40.2727		103/60-62	40.3030
60	80/60	40.2334	56-58	97/56-58	40.2728		103/62-64	40.3031
<i>80 multi is max. 2x22, 3x15, 5x15</i>			58-60	97/58-60	40.2729		103/64-66	40.3032
blind	82/0	40.2400	60-62	97/60-62	40.2730		103/66-68	40.3033
28-30	82/28-30	40.2418	62-64	97/62-64	40.2731		103/68-70	40.3034
30-32	82/30-32	40.2419	64	97/64	40.2732		103/70-72	40.3035
32-34	82/32-34	40.2420	blind	100/0	40.2800		103/72-74	40.3036
34-36	82/34-36	40.2421	40-42	100/40-42	40.2820		103/74-75	40.3037
36-38	82/36-38	40.2422	42-44	100/42-44	40.2821		103/75	40.3038
38-40	82/38-40	40.2423	44-46	100/44-46	40.2822	blind	105/0	40.3100
40-42	82/40-42	40.2424	46-48	100/46-48	40.2823	40-42	105/40-42	40.3120
42-44	82/42-44	40.2425	48-50	100/48-50	40.2824	42-44	105/42-44	40.3121
44-46	82/44-46	40.2426	50-52	100/50-52	40.2825	44-46	105/44-46	40.3122
46-48	82/46-48	40.2427	52-54	100/52-54	40.2826	46-48	105/46-48	40.3123
48-50	82/48-50	40.2428	54-56	100/54-56	40.2827	48-50	105/48-50	40.3124
50-52	82/50-52	40.2429	56-58	100/56-58	40.2828	50-52	105/50-52	40.3125
52-54	82/52-54	40.2430	58-60	100/58-60	40.2829	52-54	105/52-54	40.3126
54-56	82/54-56	40.2431	60-62	100/60-62	40.2830	54-56	105/54-56	40.3127
56-58	82/56-58	40.2432	62-64	100/62-64	40.2831	56-58	105/56-58	40.3128
58-60	82/58-60	40.2433	64-66	100/64-66	40.2832	58-60	105/58-60	40.3129
60	82/60	40.2434	66-68	100/66-68	40.2833	60-62	105/60-62	40.3130
<i>82 multi is max. 2x22, 3x15, 5x15</i>			68-70	100/68-70	40.2834	62-64	105/62-64	40.3131
blind	90/0	40.2500	70-72	100/70-72	40.2835	64-66	105/64-66	40.3132
40-42	90/40-42	40.2520	72-74	100/72-74	40.2836	66-68	105/66-68	40.3133
42-44	90/42-44	40.2521	74-75	100/74-75	40.2837	68-70	105/68-70	40.3134
44-46	90/44-46	40.2522	75	100/75	40.2838	70-72	105/70-72	40.3135
46-48	90/46-48	40.2523	blind	102/0	40.2900	72-74	105/72-74	40.3136
48-50	90/48-50	40.2524	40-42	102/40-42	40.2920	74-75	105/74-75	40.3137
50-52	90/50-52	40.2525	42-44	102/42-44	40.2921	75	105/75	40.3138
52-54	90/52-54	40.2526	44-46	102/44-46	40.2922	blind	107/0	40.3200
54-56	90/54-56	40.2527	46-48	102/46-48	40.2923	40-42	107/40-42	40.3220
56-58	90/56-58	40.2528	48-50	102/48-50	40.2924	42-44	107/42-44	40.3221
58-60	90/58-60	40.2529	50-52	102/50-52	40.2925	44-46	107/44-46	40.3222
60-62	90/60-62	40.2530	52-54	102/52-54	40.2926	46-48	107/46-48	40.3223
62-64	90/62-64	40.2531	54-56	102/54-56	40.2927	48-50	107/48-50	40.3224
64	90/64	40.2532	56-58	102/56-58	40.2928	50-52	107/50-52	40.3225
<i>90 multi is max. 2x25, 3x15</i>			58-60	102/58-60	40.2929	52-54	107/52-54	40.3226

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
54-56	107/54-56	40.3227	82-84	122/82-84	40.3541	blind	146/0	40.3900
56-58	107/56-58	40.3228	84-86	122/84-86	40.3542	88-90	146/88-90	40.3920
58-60	107/58-60	40.3229	86-88	122/86-88	40.3543	90-92	146/90-92	40.3921
60-62	107/60-62	40.3230	88-90	122/88-90	40.3544	92-94	146/92-94	40.3922
62-64	107/62-64	40.3231	90-92	122/90-92	40.3545	94-96	146/94-96	40.3923
64-66	107/64-66	40.3232	92	122/92	40.3546	96-98	146/96-98	40.3924
66-68	107/66-68	40.3233				98-100	146/98-100	40.3925
68-70	107/68-70	40.3234	blind	125/0	40.3600	100-102	146/100-102	40.3926
70-72	107/70-72	40.3235	60-62	125/60-62	40.3630	102-104	146/102-104	40.3927
72-74	107/72-74	40.3236	62-64	125/62-64	40.3631	104-106	146/104-106	40.3928
74-75	107/74-75	40.3237	64-66	125/64-66	40.3632	106-108	146/106-108	40.3929
75-76	107/75-76	40.3238	66-68	125/66-68	40.3633	108-110	146/108-110	40.3930
76	107/76	40.3239	68-70	125/68-70	40.3634	110-112	146/110-112	40.3931
			70-72	125/70-72	40.3635	112-114	146/112-114	40.3932
blind	110/0	40.3300	72-74	125/72-74	40.3636	114-116	146/114-116	40.3933
48-50	110/48-50	40.3324	74-76	125/74-76	40.3637	116-118	146/116-118	40.3934
50-52	110/50-52	40.3325	76-78	125/76-78	40.3638	118-120	146/118-120	40.3935
52-54	110/52-54	40.3326	78-80	125/78-80	40.3639	120	146/120	40.3936
54-56	110/54-56	40.3327	80-82	125/80-82	40.3640			
56-58	110/56-58	40.3328	82-84	125/82-84	40.3641	blind	150/0	40.4000
58-60	110/58-60	40.3329	84-86	125/84-86	40.3642	88-90	150/88-90	40.4020
60-62	110/60-62	40.3330	86-88	125/86-88	40.3643	90-92	150/90-92	40.4021
62-64	110/62-64	40.3331	88-90	125/88-90	40.3644	92-94	150/92-94	40.4022
64-66	110/64-66	40.3332	90-92	125/90-92	40.3645	94-96	150/94-96	40.4023
66-68	110/66-68	40.3333	92	125/92	40.3646	96-98	150/96-98	40.4024
68-70	110/68-70	40.3334				98-100	150/98-100	40.4025
70-72	110/70-72	40.3335	blind	128/0	40.3700	100-102	150/100-102	40.4026
72-74	110/72-74	40.3336	60-62	128/60-62	40.3730	102-104	150/102-104	40.4027
74-76	110/74-76	40.3337	62-64	128/62-64	40.3731	104-106	150/104-106	40.4028
76-78	110/76-78	40.3338	64-66	128/64-66	40.3732	106-108	150/106-108	40.4029
78-80	110/78-80	40.3339	66-68	128/66-68	40.3733	108-110	150/108-110	40.4030
80	110/80	40.3340	68-70	128/68-70	40.3734	110-112	150/110-112	40.4031
			70-72	128/70-72	40.3735	112-114	150/112-114	40.4032
blind	118/0	40.3400	72-74	128/72-74	40.3736	114-116	150/114-116	40.4033
60-62	118/60-62	40.3430	74-76	128/74-76	40.3737	116-118	150/116-118	40.4034
62-64	118/62-64	40.3431	76-78	128/76-78	40.3738	118-120	150/118-120	40.4035
64-66	118/64-66	40.3432	78-80	128/78-80	40.3739	120-122	150/120-122	40.4036
66-68	118/66-68	40.3433	80-82	128/80-82	40.3740	122-124	150/122-124	40.4037
68-70	118/68-70	40.3434	82-84	128/82-84	40.3741	124-125	150/124-125	40.4038
70-72	118/70-72	40.3435	84-86	128/84-86	40.3742	125	150/125	40.4039
72-74	118/72-74	40.3436	86-88	128/86-88	40.3743			
74-76	118/74-76	40.3437	88-90	128/88-90	40.3744	blind	152/0	40.4100
76-78	118/76-78	40.3438	90-92	128/90-92	40.3745	88-90	152/88-90	40.4120
78-80	118/78-80	40.3439	92	128/92	40.3746	90-92	152/90-92	40.4121
80-82	118/80-82	40.3440				92-94	152/92-94	40.4122
82-84	118/82-84	40.3441	blind	131/0	40.3800	94-96	152/94-96	40.4123
84-86	118/84-86	40.3442	60-62	131/60-62	40.3830	96-98	152/96-98	40.4124
86-88	118/86-88	40.3443	62-64	131/62-64	40.3831	98-100	152/98-100	40.4125
88-90	118/88-90	40.3444	64-66	131/64-66	40.3832	100-102	152/100-102	40.4126
90	118/90	40.3445	66-68	131/66-68	40.3833	102-104	152/102-104	40.4127
			68-70	131/68-70	40.3834	104-106	152/104-106	40.4128
blind	122/0	40.3500	70-72	131/70-72	40.3835	106-108	152/106-108	40.4129
60-62	122/60-62	40.3530	72-74	131/72-74	40.3836	108-110	152/108-110	40.4130
62-64	122/62-64	40.3531	74-76	131/74-76	40.3837	110-112	152/110-112	40.4131
64-66	122/64-66	40.3532	76-78	131/76-78	40.3838	112-114	152/112-114	40.4132
66-68	122/66-68	40.3533	78-80	131/78-80	40.3839	114-116	152/114-116	40.4133
68-70	122/68-70	40.3534	80-82	131/80-82	40.3840	116-118	152/116-118	40.4134
70-72	122/70-72	40.3535	82-84	131/82-84	40.3841	118-120	152/118-120	40.4135
72-74	122/72-74	40.3536	84-86	131/84-86	40.3842	120-122	152/120-122	40.4136
74-76	122/74-76	40.3537	86-88	131/86-88	40.3843	122-124	152/122-124	40.4137
76-78	122/76-78	40.3538	88-90	131/88-90	40.3844	124-125	152/124-125	40.4138
78-80	122/78-80	40.3539	90-92	131/90-92	40.3845	125	152/125	40.4139
80-82	122/80-82	40.3540	92	131/92	40.3846			

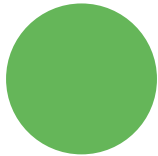


SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	
blind	154/0	40.4200	124-125	160/124-125	40.4438		type code: series/2xcable diameter For instance 40/2x6-7		
88-90	154/88-90	40.4220	125	160/125	40.4439				
90-92	154/90-92	40.4221	blind	190/0	40.4500				
92-94	154/92-94	40.4222	110-112	190/110	40.4520				
94-96	154/94-96	40.4223	114-116	190/114	40.4523				
96-98	154/96-98	40.4224	125-127	190/125	40.4528				
98-100	154/98-100	40.4225	133-135	190/133	40.4531				
100-102	154/100-102	40.4226	139-141	190/139	40.4533				
102-104	154/102-104	40.4227	142-144	190/142	40.4534				
104-106	154/104-106	40.4228	153-155	190/153	40.4541				
106-108	154/106-108	40.4229	159-161	190/159	40.4543				
108-110	154/108-110	40.4230		type code: series/3xcable diameter For instance 40/3x6-7					
110-112	154/110-112	40.4231				blind	200/0	40.4600	
112-114	154/112-114	40.4232				110-112	200/110	40.4620	
114-116	154/114-116	40.4233				114-116	200/114	40.4623	
116-118	154/116-118	40.4234				120-122	200/120	40.4626	
118-120	154/118-120	40.4235				125-127	200/125	40.4628	
120-122	154/120-122	40.4236				133-135	200/133	40.4632	
122-124	154/122-124	40.4237				135-137	200/135	40.4631	
124-125	154/124-125	40.4238				139-141	200/139	40.4633	
125	154/125	40.4239				159-161	200/159	40.4643	
<i>all dimensions in mm</i>	blind	156/0	40.4300	<i>all dimensions in mm</i>					
	88-90	156/88-90	40.4320				blind	203/0	40.4700
	90-92	156/90-92	40.4321				110-112	203/110	40.4720
	92-94	156/92-94	40.4322				114-116	203/114	40.4723
	94-96	156/94-96	40.4323				125-127	203/125	40.4728
	96-98	156/96-98	40.4324				133-135	203/133	40.4731
	98-100	156/98-100	40.4325				139-141	203/139	40.4733
	100-102	156/100-102	40.4326				141-143	203/141	40.4734
	102-104	156/102-104	40.4327				159-161	203/159	40.4743
	104-106	156/104-106	40.4328				168-170	203/168	40.4748
106-108	156/106-108	40.4329		type code: series/5xcable diameter For instance 40/5x6-7					
108-110	156/108-110	40.4330				blind	207/0	40.4800	
110-112	156/110-112	40.4331				110-112	207/110	40.4820	
112-114	156/112-114	40.4332				114-116	207/114	40.4823	
114-116	156/114-116	40.4333				125-127	207/125	40.4828	
116-118	156/116-118	40.4334				133-135	207/133	40.4831	
118-120	156/118-120	40.4335				139-141	207/139	40.4833	
120-122	156/120-122	40.4336				159-161	207/159	40.4843	
122-124	156/122-124	40.4337				168-170	207/168	40.4848	
124-125	156/124-125	40.4338				160-162	250/160	40.5010	
125	156/125	40.4339	168-170	250/168	40.5014				
<i>all dimensions in mm</i>	blind	160/0	40.4400	<i>all dimensions in mm</i>					
	88-90	160/88-90	40.4420				171-173	250/171	40.5015
	90-92	160/90-92	40.4421				200-202	250/200	40.5030
	92-94	160/92-94	40.4422				160-162	260/160	40.5210
	94-96	160/94-96	40.4423				219-221	260/219	40.5239
	96-98	160/96-98	40.4424				200-202	300/200	40.5321
	98-100	160/98-100	40.4425				250-252	300/250	40.5346
	100-102	160/100-102	40.4426				* the series 190 up to 340 are made upon customer request. The listed sizes are available. For other sizes, please contact our sales department.		
	102-104	160/102-104	40.4427						
	104-106	160/104-106	40.4428						
106-108	160/106-108	40.4429							
108-110	160/108-110	40.4430							
110-112	160/110-112	40.4431							
112-114	160/112-114	40.4432							
114-116	160/114-116	40.4433							
116-118	160/116-118	40.4434							
118-120	160/118-120	40.4435							
120-122	160/120-122	40.4436							
122-124	160/122-124	40.4437							

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

**Cutting Edge NOFIRNO® and LEAXEAL® technology
for optimum performance under harshest conditions:**



SYSTEM WILL NOT BE CONSUMED WHEN EXPOSED TO FIRE

SEALING PLUGS ARE MADE OF INERT SILICONE RUBBER

IN CASE OF FIRE: NON-TOXIC, LOW SMOKE INDEX

CE (MED) CERTIFICATES FOR A-O UP TO A-60

APPROVED WATER TIGHT UP TO 2.5 BAR

APPROVED GAS TIGHT UP TO 1 BAR

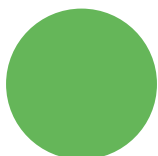


SHORTEST POSSIBLE CONDUIT LENGTH

WIDE TEMPERATURE RANGE: CAN BE USED FOR STEAM LINES
AND ALSO IN ARCTIC CONDITIONS

HIGH LEVEL OF SOUND DAMPING/EMC ATTENUATION

SHOCK AND VIBRATION PROOF



NO MECHANICAL STRESSES TRANSFERRED TO THE DIVISION

UP TO 50 YEARS SERVICE LIFE

CAPABLE OF ABSORBING TEMPERATURE CHANGES

WEATHERING, UV AND OZONE RESISTANT

PROVIDES CATHODIC PROTECTION

ALLOWS LONGITUDINAL/RADIAL MOVEMENT

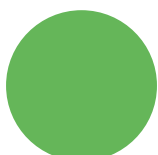


FOR METALLIC, GRP AND PLASTIC PIPES AND CABLES

EXTREMELY SIMPLE TO INSTALL

INSULATION ONLY AT THE INSULATED SIDE OF THE DIVISION

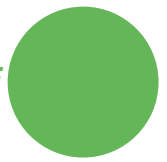
NO INSULATION REQUIRED FOR METALLIC AND GRP PIPES
PASSING THROUGH A-O DIVISIONS



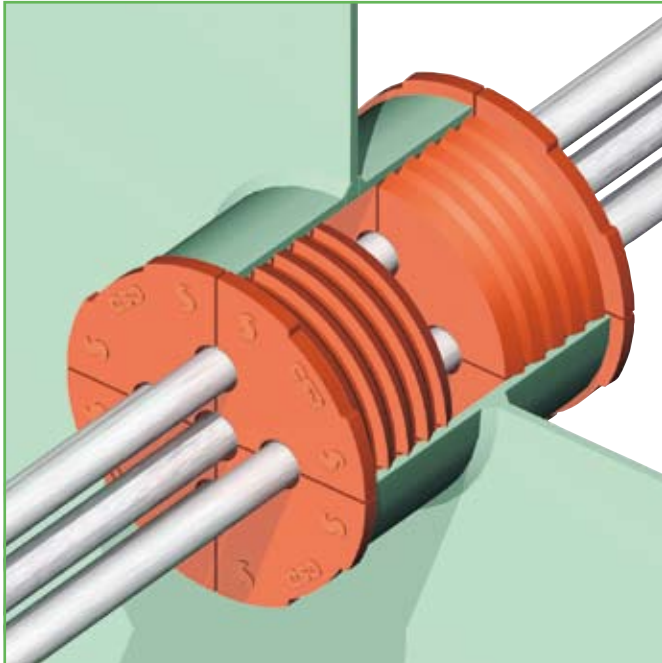
SYSTEM PREVENTS CORROSION INSIDE THE TRANSIT

APPROVED FOR STEEL AND ALUMINIUM PARTITIONS

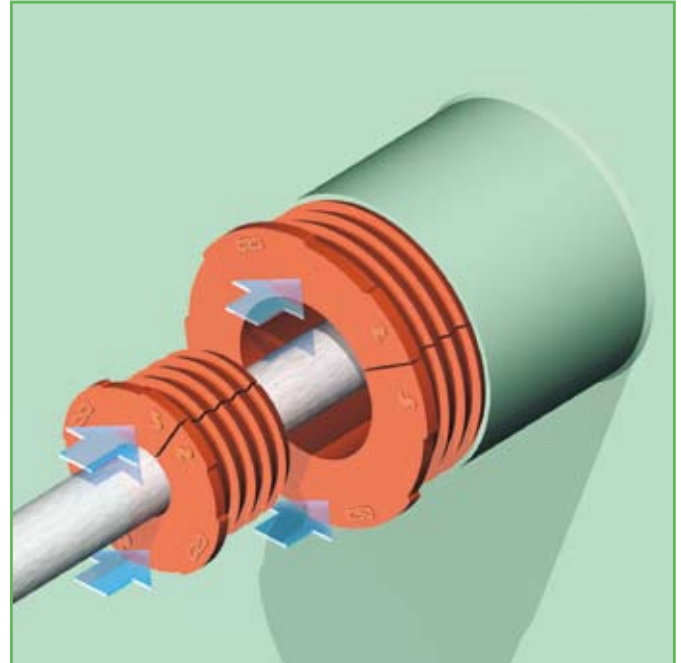
MAINTENANCE FRIENDLY



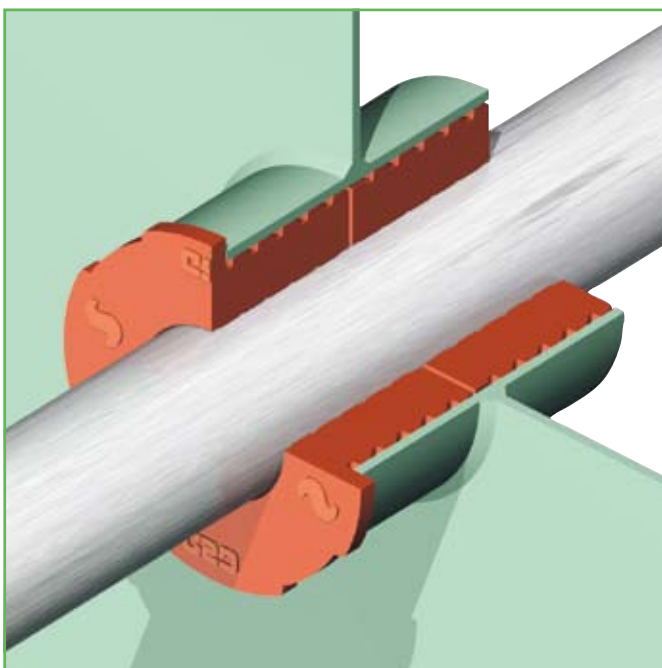
SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES



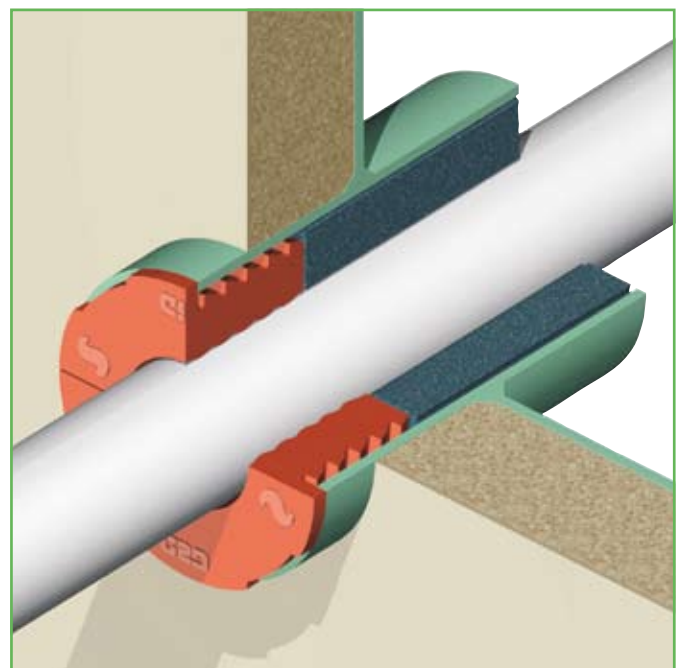
Several options are available with the SLIPSIL® plugs. Especially for hydraulic and pneumatic lines, a series of SLIPSIL® multi-sealing plugs have been developed to enable ducting of 2 - 5 same diameter pipes.



SLIPSIL® adapter plugs can be used in cases where conduit sleeves are much larger than the service pipe OD, and no individual sealing plug is available. A SLIPSIL® adapter plug with a standard SLIPSIL® plug offers the solution.



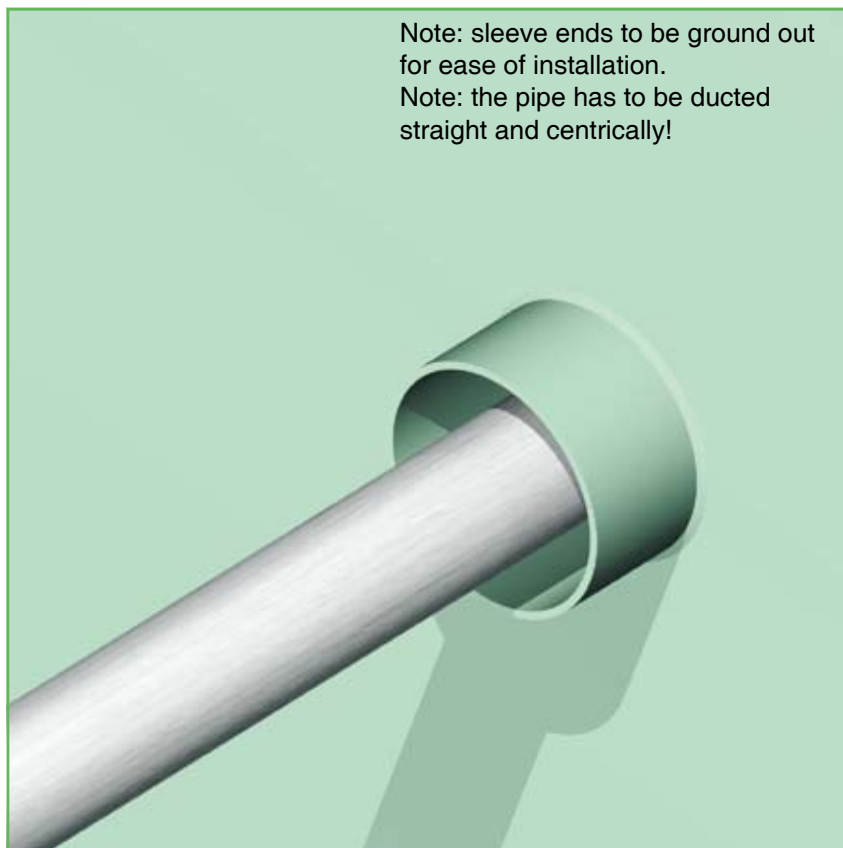
In case there is no access to install the sealing plugs from both sides, a solution has been found to install a combination of DYNATITE® and SLIPSIL® plugs. The flange of the DYNATITE® plug fits inside, and is inserted deeply into the conduit sleeve. The SLIPSIL® sealing plug is then installed on top of the DYNATITE® plug.



For plastic pipe penetrations, a combination of the SLIPSIL® sealing plugs and the RISE®/ULTRA crushers can be used. Instead of RISE®/ULTRA crushers, RISE®/ULTRA wraps can be used. Note: the RISE®/ULTRA wraps are 2.5 mm thick and have to be wrapped to the required thickness.

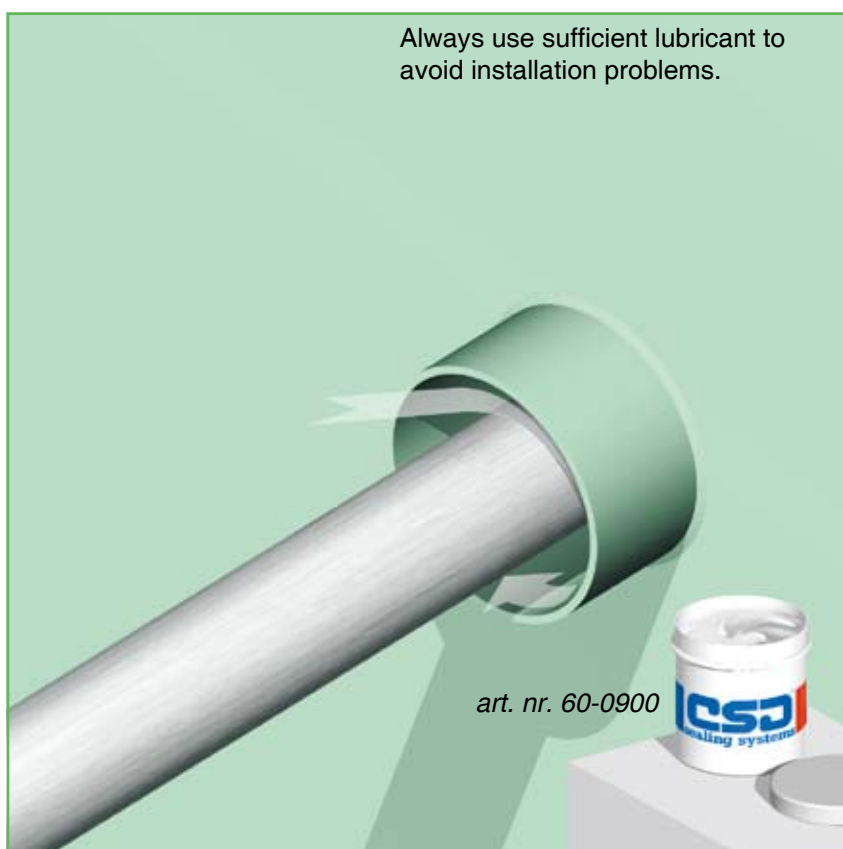
SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

1) Before starting the installation procedure, any dirt, oil residues or welding spots should be removed from the conduit sleeve. For ease of installation, it is advisable to grind out the front side of the sleeve.



slipsil

2) Then the inside wall of the conduit sleeve is treated with CSD® lubricant along a distance which approximately corresponds to the length of the sealing plug.



slipsil



SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

3) The inside surfaces of both segments of the SLIPSIL® sealing plug are then treated with CSD® lubricant.

For selecting the right sealing plug, look for the plug series and the plug type in this series on the basis of the ID of the sleeve and the OD of the ducted pipe.



slipsil

4) The segments of the SLIPSIL® sealing plug are also treated with CSD® lubricant on the outside. Please refer to the Safety Data Sheet of the CSD® lubricant for more information.

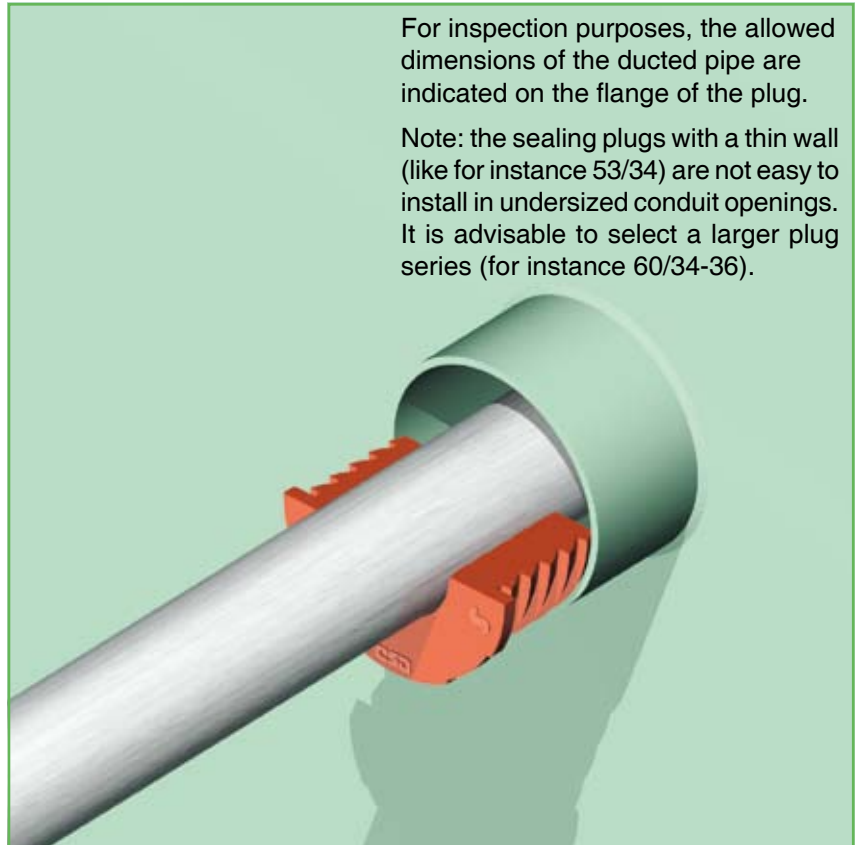


slipsil

SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

5) Both segments of the SLIPSIL® sealing plug are placed around the ducted pipe and then pushed into the conduit sleeve as far as the first serration. The first serration is smaller than the other serrations to make this procedure very easy.

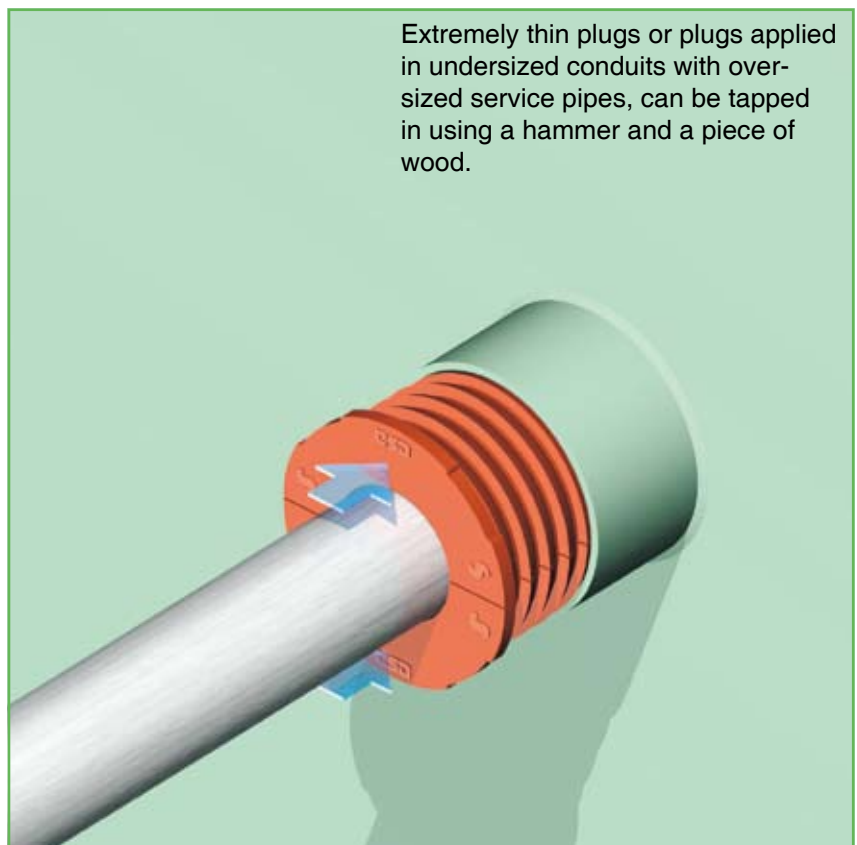
slipsil

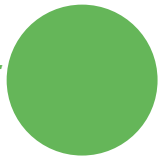


6) Then both segments of the SLIPSIL® sealing plug are pushed by hand evenly, serration by serration, further into the conduit sleeve.

For fire rated conduits, the plugs have to be applied at both sides. During insertion of the second plug, the air between both plugs will be compressed, and has to be released from time to time, by inserting a screw driver between both plug halves.

slipsil

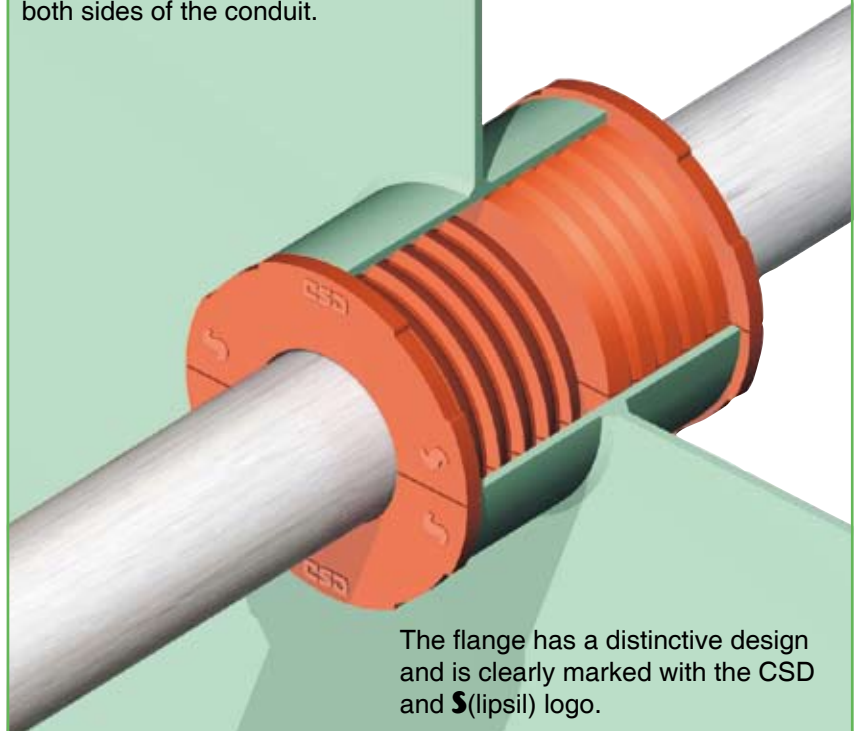




SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

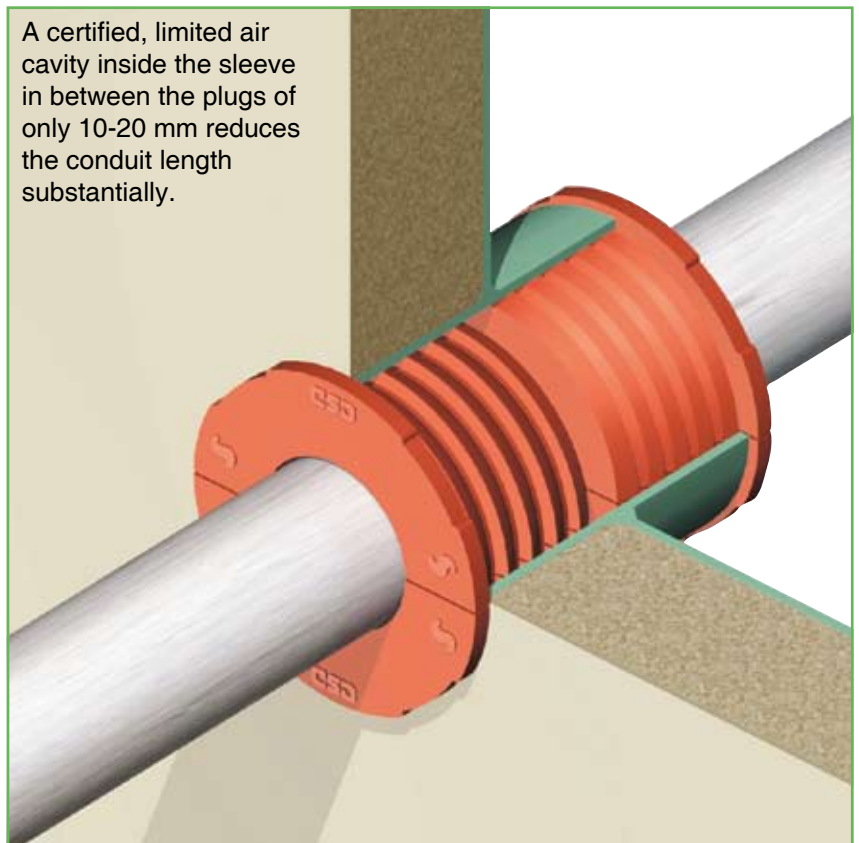
7) The flanged edges of the sealing plugs must be flush against the front side of the conduit sleeve at both sides. Note: tightness and installation are optimum at nominal sizes (for instance for 60/34-36 optimum is 60 mm ID of the sleeve and 34 mm OD of the ducted pipe).

For horizontal ducts of heavy pipes/cables it is extremely important to support the pipe/cable properly at both sides of the conduit.



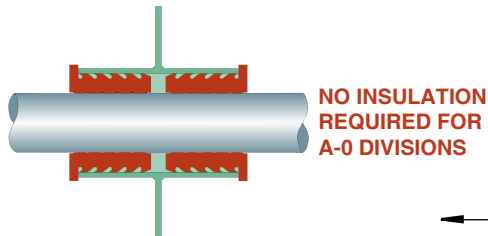
8) For A-class penetrations (which are insulated), the conduit sleeve needs to be insulated only at the insulated side of the bulkhead or at the lower side of the deck. The ducted pipe has to be insulated according to the specifications on the certified drawings.

A certified, limited air cavity inside the sleeve in between the plugs of only 10-20 mm reduces the conduit length substantially.



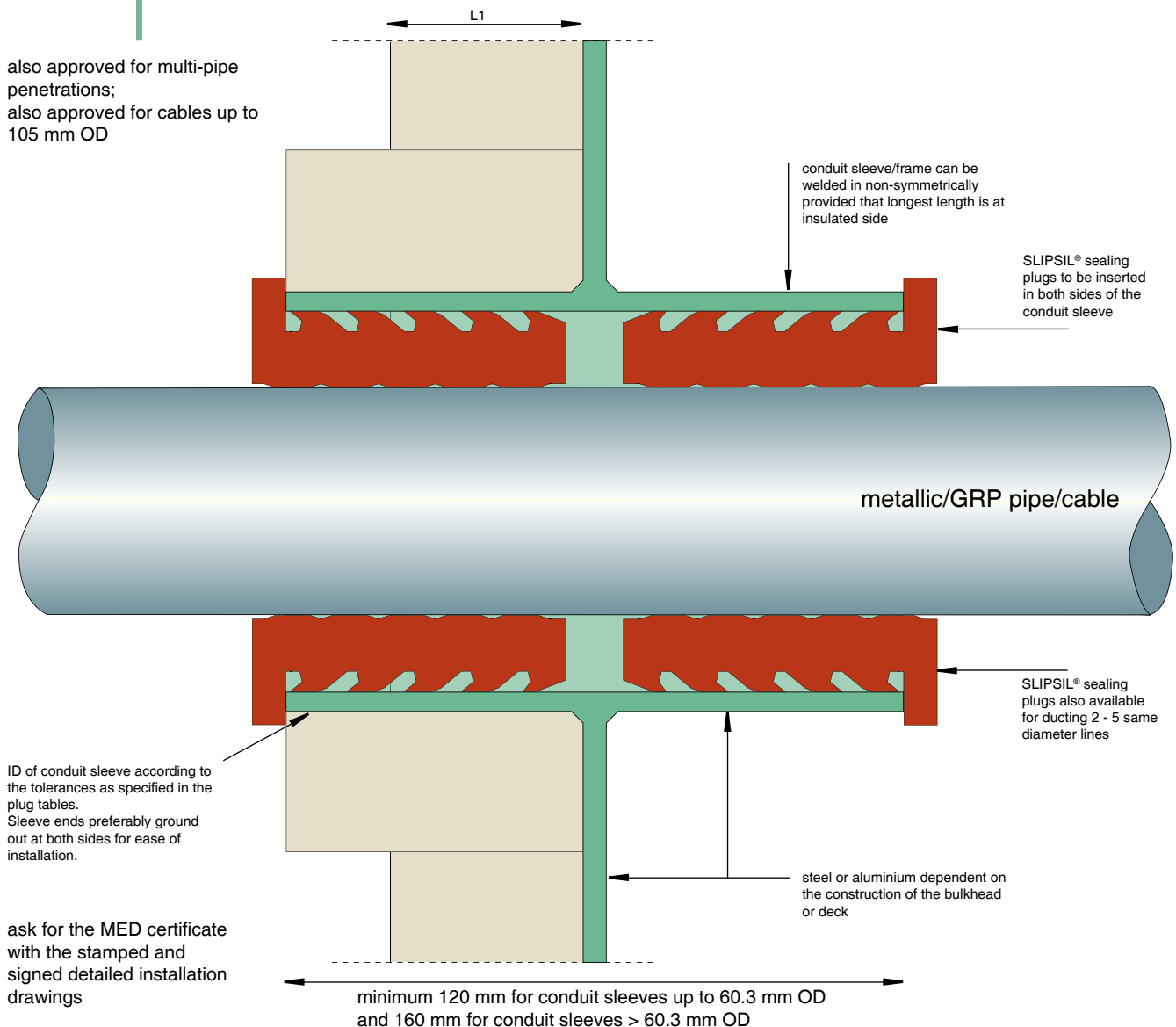
SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

L1: A-60 approved bulkhead insulation.



also approved for multi-pipe penetrations;
also approved for cables up to 105 mm OD

- SHORTEST POSSIBLE CONDUIT LENGTH
- INSULATION ONLY AT ONE SIDE



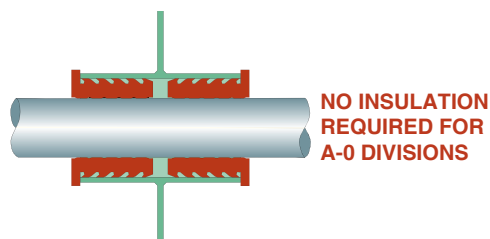
Specifications for A-class according to EC (MED) certificate MED-B-5067 issued by Det Norske Veritas.
Drawings SL010E up to SL016E
Drawings SL047E and SL049E

A0-A60
METALLIC/GRP
PIPE TRANSIT



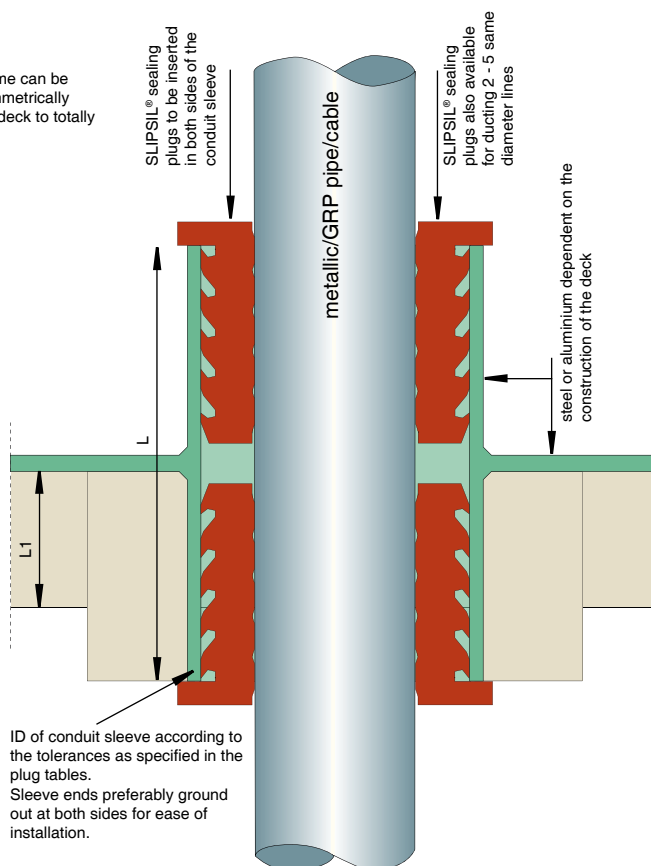
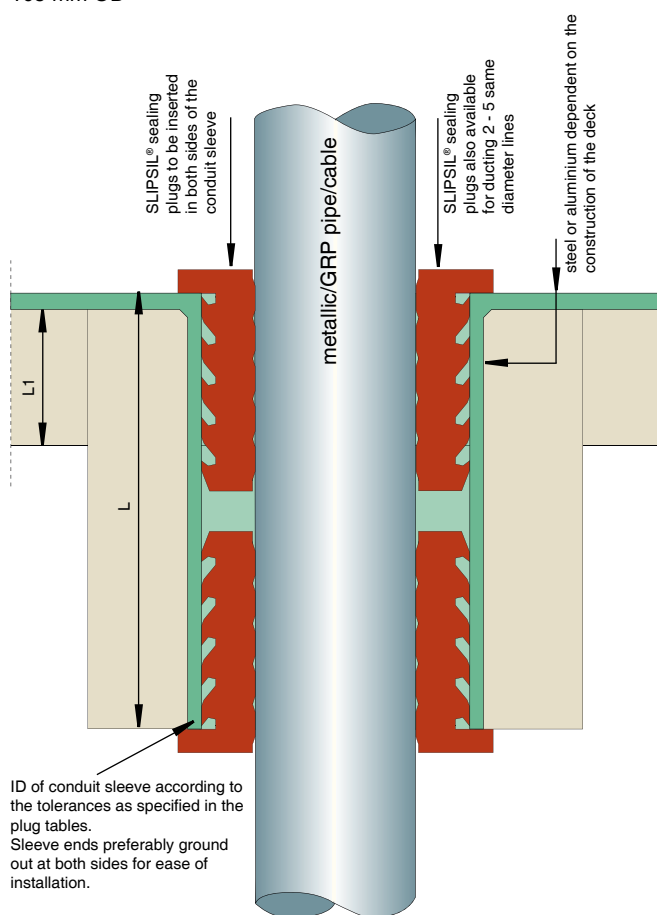
SLIPSIL® SEALING PLUGS FOR PIPE/CABLE ENTRIES

L1: A-60 approved deck insulation.



also approved for multi-pipe penetrations;
also approved for cables up to 105 mm OD

- SHORTEST POSSIBLE CONDUIT LENGTH
- INSULATION ONLY AT ONE SIDE



ask for the MED certificate with the stamped and signed detailed installation drawings

Specifications for A-class according to EC (MED) certificate MED-B-5067 issued by Det Norske Veritas.
Drawings SL010E up to SL016E
Drawings SL047E and SL049E

**A0-A60
METALLIC/GRP
PIPE TRANSIT**



SLIPSIL® MULTI-SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
6-7	40/2x6-7	40.0926	11-12	68/2x11-12	40.1936	15-16	90/2x15-16	40.2541
7-8	40/2x7-8	40.0927	12-13	68/2x12-13	40.1937	16-17	90/2x16-17	40.2542
8-9	40/2x8-9	40.0928	13-14	68/2x13-14	40.1938	17-18	90/2x17-18	40.2543
9-10	40/2x9-10	40.0929	14-15	68/2x14-15	40.1939	18-19	90/2x18-19	40.2544
10-11	40/2x10-11	40.0930	15-16	68/2x15-16	40.1940	19-20	90/2x19-20	40.2545
			16-17	68/2x16-17	40.1941	20-21	90/2x20-21	40.2546
6-7	41/2x6-7	40.1026	17-18	68/2x17-18	40.1942	21-22	90/2x21-22	40.2547
7-8	41/2x7-8	40.1027	18-19	68/2x18-19	40.1943	22-23	90/2x22-23	40.2548
8-9	41/2x8-9	40.1028	19-20	68/2x19-20	40.1944	23-24	90/2x23-24	40.2549
9-10	41/2x9-10	40.1029	20-21	68/2x20-21	40.1945	24-25	90/2x24-25	40.2550
10-11	41/2x10-11	40.1030	21-22	68/2x21-22	40.1946	25-26	90/2x25-26	40.2551
			22-23	68/2x22-23	40.1947			
6-7	43/2x6-7	40.1126	11-12	70/2x11-12	40.2036	<p>* multi-plugs for other plug series are made upon customer request. The listed sizes are standard items. For other sizes, please contact our sales department.</p>		
7-8	43/2x7-8	40.1127	12-13	70/2x12-13	40.2037			
8-9	43/2x8-9	40.1128	13-14	70/2x13-14	40.2038			
9-10	43/2x9-10	40.1129	14-15	70/2x14-15	40.2039			
10-11	43/2x10-11	40.1130	15-16	70/2x15-16	40.2040			
6-7	50/2x6-7	40.1231	16-17	70/2x16-17	40.2041			
7-8	50/2x7-8	40.1232	17-18	70/2x17-18	40.2042			
8-9	50/2x8-9	40.1233	18-19	70/2x18-19	40.2043			
9-10	50/2x9-10	40.1234	19-20	70/2x19-20	40.2044			
10-11	50/2x10-11	40.1235	20-21	70/2x20-21	40.2045			
11-12	50/2x11-12	40.1236	21-22	70/2x21-22	40.2046			
12-13	50/2x12-13	40.1237	22-23	70/2x22-23	40.2047			
13-14	50/2x13-14	40.1238				<p>SLIPSIL® multi-sealing plugs for two up to five same diameter cables or pipes consist of two, three or four equal parts, so that they can be installed after the cables or pipes have been laid. For selecting the right type of sealing plug, look for the plug series from the tables.</p>		
14-15	50/2x14-15	40.1239	12-13	78/2x12-13	40.2241			
15-16	50/2x15-16	40.1240	13-14	78/2x13-14	40.2242			
6-7	53/2x6-7	40.1331	14-15	78/2x14-15	40.2243			
7-8	53/2x7-8	40.1332	15-16	78/2x15-16	40.2244			
8-9	53/2x8-9	40.1333	16-17	78/2x16-17	40.2245			
9-10	53/2x9-10	40.1334	17-18	78/2x17-18	40.2246			
10-11	53/2x10-11	40.1335	18-19	78/2x18-19	40.2247			
11-12	53/2x11-12	40.1336	19-20	78/2x19-20	40.2248			
12-13	53/2x12-13	40.1337	20-21	78/2x20-21	40.2249			
13-14	53/2x13-14	40.1338	21-22	78/2x21-22	40.2250			
14-15	53/2x14-15	40.1339	22-23	78/2x22-23	40.2251			
15-16	53/2x15-16	40.1340						
6-7	55/2x6-7	40.1431	12-13	80/2x12-13	40.2341			
7-8	55/2x7-8	40.1432	13-14	80/2x13-14	40.2342			
8-9	55/2x8-9	40.1433	14-15	80/2x14-15	40.2343			
9-10	55/2x9-10	40.1434	15-16	80/2x15-16	40.2344			
10-11	55/2x10-11	40.1435	16-17	80/2x16-17	40.2345			
11-12	55/2x11-12	40.1436	17-18	80/2x17-18	40.2346			
12-13	55/2x12-13	40.1437	18-19	80/2x18-19	40.2347			
13-14	55/2x13-14	40.1438	19-20	80/2x19-20	40.2348			
14-15	55/2x14-15	40.1439	20-21	80/2x20-21	40.2349			
15-16	55/2x15-16	40.1440	21-22	80/2x21-22	40.2350			
			22-23	80/2x22-23	40.2351			
11-12	60/2x11-12	40.1636	12-13	82/2x12-13	40.2441	<p>type code: series/2xcable diameter For instance 40/2x6-7</p>		
12-13	60/2x12-13	40.1637	13-14	82/2x13-14	40.2442			
13-14	60/2x13-14	40.1638	14-15	82/2x14-15	40.2443			
14-15	60/2x14-15	40.1639	15-16	82/2x15-16	40.2444			
15-16	60/2x15-16	40.1640	16-17	82/2x16-17	40.2445			
			17-18	82/2x17-18	40.2446			
11-12	62/2x11-12	40.1736	18-19	82/2x18-19	40.2447			
12-13	62/2x12-13	40.1737	19-20	82/2x19-20	40.2448			
13-14	62/2x13-14	40.1738	20-21	82/2x20-21	40.2449			
14-15	62/2x14-15	40.1739	21-22	82/2x21-22	40.2450			
15-16	62/2x15-16	40.1740	22-23	82/2x22-23	40.2451			



type code: series/2xcable diameter
For instance 40/2x6-7

SLIPSIL® MULTI-SEALING PLUGS FOR PIPE/CABLE ENTRIES

cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number	cable/ pipe diameter	plug type	article number
6-7	40/3x6-7	40.0936	10-11	80/3x10-11	40.2356	10-11	80/5x10-11	40.2366
7-8	40/3x7-8	40.0937	11-12	80/3x11-12	40.2357	11-12	80/5x11-12	40.2367
			12-13	80/3x12-13	40.2358	12-13	80/5x12-13	40.2368
6-7	41/3x6-7	40.1036	13-14	80/3x13-14	40.2359	13-14	80/5x13-14	40.2369
7-8	41/3x7-8	40.1037	14-15	80/3x14-15	40.2360	14-15	80/5x14-15	40.2370
			15-16	80/3x15-16	40.2361	15-16	80/5x15-16	40.2371
6-7	43/3x6-7	40.1136	10-11	82/3x10-11	40.2456	10-11	82/5x10-11	40.2466
7-8	43/3x7-8	40.1137	11-12	82/3x11-12	40.2457	11-12	82/5x11-12	40.2467
6-7	50/3x6-7	40.1241	12-13	82/3x12-13	40.2458	12-13	82/5x12-13	40.2468
7-8	50/3x7-8	40.1242	13-14	82/3x13-14	40.2459	13-14	82/5x13-14	40.2469
8-9	50/3x8-9	40.1243	14-15	82/3x14-15	40.2460	14-15	82/5x14-15	40.2470
			15-16	82/3x15-16	40.2461	15-16	82/5x15-16	40.2471
6-7	53/3x6-7	40.1341	10-11	90/3x10-11	40.2556	<p>* multi-plugs for other plug series are made upon customer request. The listed sizes are standard items. For other sizes, please contact our sales department.</p> <p>* the tooling for the multi-plugs 5x is very expensive. Specials only on request based on quantities.</p>		
7-8	53/3x7-8	40.1342	11-12	90/3x11-12	40.2557			
8-9	53/3x8-9	40.1343	12-13	90/3x12-13	40.2558			
9-10	53/3x9-10	40.1344	13-14	90/3x13-14	40.2559			
10-11	53/3x10-11	40.1345	14-15	90/3x14-15	40.2560			
			15-16	90/3x15-16	40.2561			
6-7	55/3x6-7	40.1441	6-7	40/5x6-7	40.0941			
7-8	55/3x7-8	40.1442	7-8	40/5x7-8	40.0942			
8-9	55/3x8-9	40.1443	6-7	41/5x6-7	40.1041			
9-10	55/3x9-10	40.1444	7-8	41/5x7-8	40.1042			
10-11	55/3x10-11	40.1445	6-7	43/5x6-7	40.1141			
			7-8	43/5x7-8	40.1142			
6-7	60/3x6-7	40.1646	6-7	50/5x6-7	40.1251	 <p>type code: series/3xcable diameter For instance 40/3x6-7</p>		
7-8	60/3x7-8	40.1647	7-8	50/5x7-8	40.1252			
8-9	60/3x8-9	40.1648	8-9	50/5x8-9	40.1253			
9-10	60/3x9-10	40.1649	6-7	53/5x6-7	40.1351			
10-11	60/3x10-11	40.1650	7-8	53/5x7-8	40.1352			
			8-9	53/5x8-9	40.1353			
6-7	62/3x6-7	40.1746	9-10	53/5x9-10	40.1354			
7-8	62/3x7-8	40.1747	10-11	53/5x10-11	40.1355			
8-9	62/3x8-9	40.1748	6-7	55/5x6-7	40.1451			
9-10	62/3x9-10	40.1749	7-8	55/5x7-8	40.1452			
10-11	62/3x10-11	40.1750	8-9	55/5x8-9	40.1453			
			9-10	55/5x9-10	40.1454			
6-7	68/3x6-7	40.1951	10-11	55/5x10-11	40.1455	 <p>type code: series/5xcable diameter For instance 40/5x6-7</p>		
7-8	68/3x7-8	40.1952	6-7	68/5x6-7	40.1961			
8-9	68/3x8-9	40.1953	7-8	68/5x7-8	40.1962			
9-10	68/3x9-10	40.1954	8-9	68/5x8-9	40.1963			
10-11	68/3x10-11	40.1955	9-10	68/5x9-10	40.1964			
11-12	68/3x11-12	40.1956	10-11	68/5x10-11	40.1965			
12-13	68/3x12-13	40.1957	11-12	68/5x11-12	40.1966			
			12-13	68/5x12-13	40.1967			
6-7	70/3x6-7	40.2051	10-11	78/5x10-11	40.2266			
7-8	70/3x7-8	40.2052	11-12	78/5x11-12	40.2267			
8-9	70/3x8-9	40.2053	12-13	78/5x12-13	40.2268			
9-10	70/3x9-10	40.2054	13-14	78/5x13-14	40.2269			
10-11	70/3x10-11	40.2055	14-15	78/5x14-15	40.2270			
11-12	70/3x11-12	40.2054	15-16	78/5x15-16	40.2271			
12-13	70/3x12-13	40.2055						
10-11	78/3x10-11	40.2256						
11-12	78/3x11-12	40.2257						
12-13	78/3x12-13	40.2258						
13-14	78/3x13-14	40.2259						
14-15	78/3x14-15	40.2260						
15-16	78/3x15-16	40.2261						

SLIPSIL® MULTI-SEALING PLUGS FOR PIPE/CABLE ENTRIES

1) The SLIPSIL® multi-sealing plug for five same diameter lines exists of four equal segments. The inside surfaces of the segments are treated with CSD® lubricant.

For selecting the right sealing plug, look for the plug series and the plug type in this series on the basis of the ID of the sleeve and the OD of the ducted pipes.

slipsil



4) The segments are also treated with CSD® lubricant on the outside. Please refer to the Safety Data Sheet of the CSD® lubricant for more information.

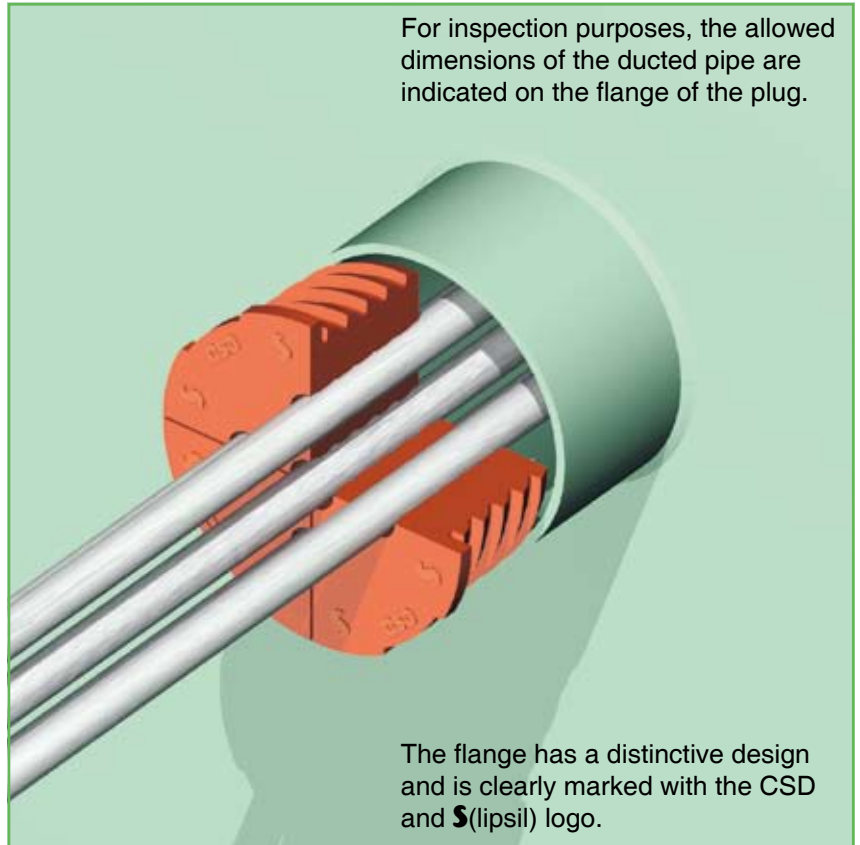
slipsil





SLIPSIL® MULTI-SEALING PLUGS FOR PIPE/CABLE ENTRIES

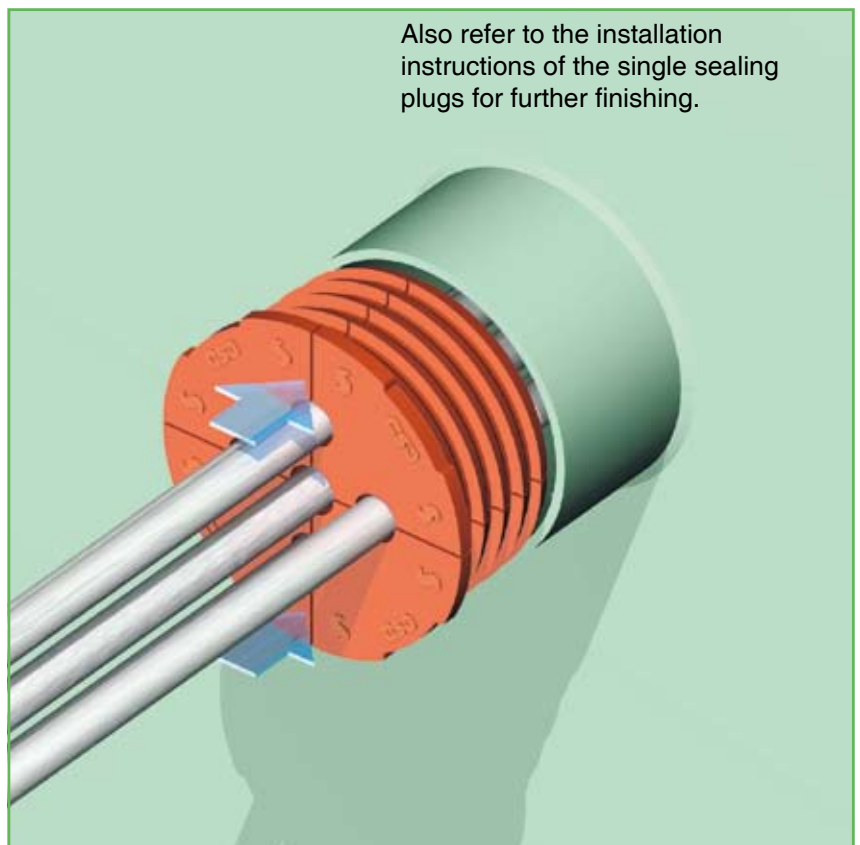
3) The segments of the SLIPSIL® multi-sealing plug are placed around the ducted pipes and then pushed into the conduit sleeve as far as the first serration. The first serration is smaller than the other serrations to make this procedure very easy.



slipsil

4) Then the four segments of the SLIPSIL® multi-sealing plug are pushed by hand evenly, serration by serration, further into the conduit sleeve.

For fire rated conduits, the plugs have to be applied at both sides. During insertion of the second plug, the air between both plugs will be compressed, and has to be released from time to time, by inserting a screw driver between both plug halves.

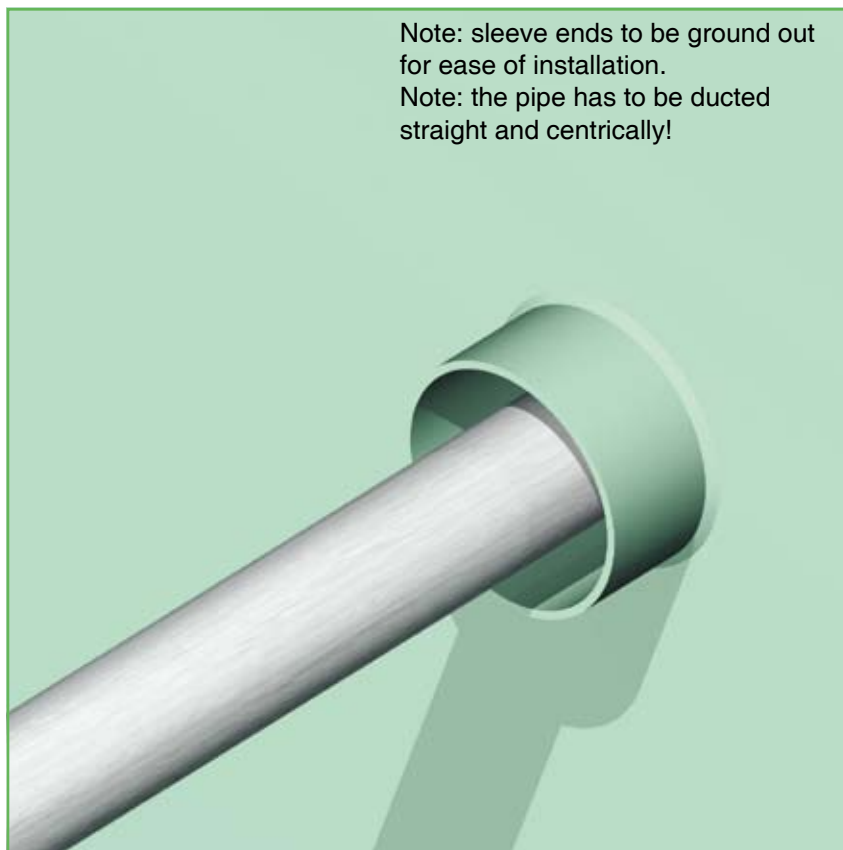


slipsil

SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

1) Before starting the installation procedure, any dirt, oil residues or welding spots should be removed from the conduit sleeve. For ease of installation, it is advisable to grind out the front side of the sleeve.

slipsil



2) Then the inside wall of the conduit sleeve is treated with CSD® lubricant along a distance which approximately corresponds to the length of the SLIPSIL®/DYNATITE® combination.

slipsil



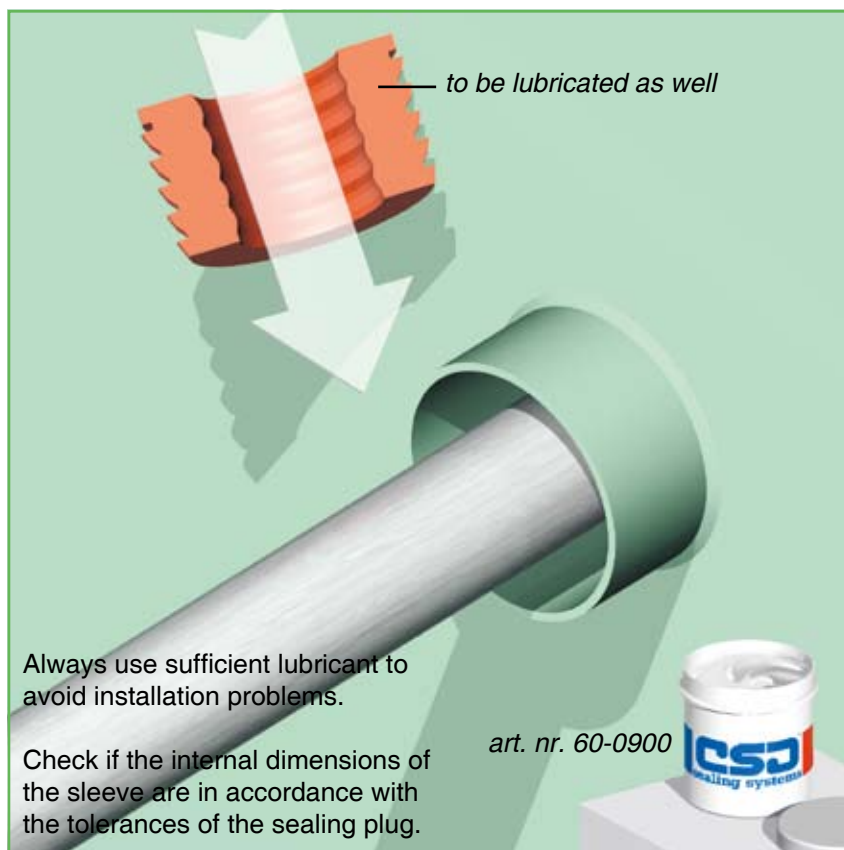


SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

3) The inside surfaces of both segments of the DYNATITE® sealing plug are then treated with CSD® lubricant.

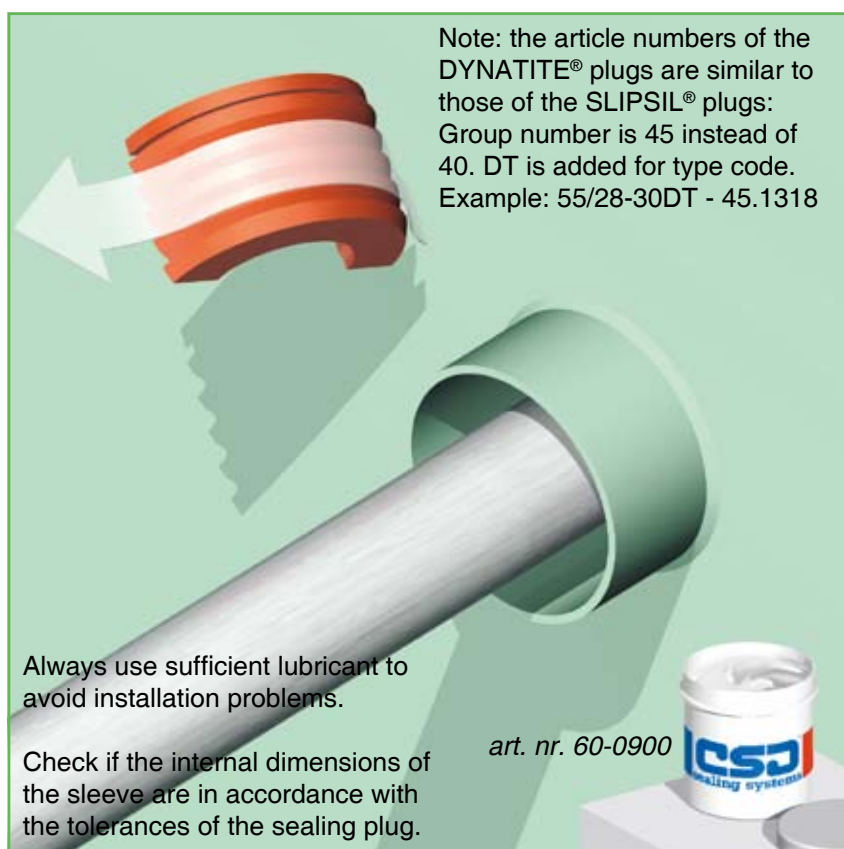
For selecting the right sealing plug, look for the plug series and the plug type in this series on the basis of the ID of the sleeve and the OD of the ducted pipe.

slipsil



4) The segments of the DYNATITE® sealing plug are also treated with CSD® lubricant on the outside. Please refer to the Safety Data Sheet of the CSD® lubricant for more information.

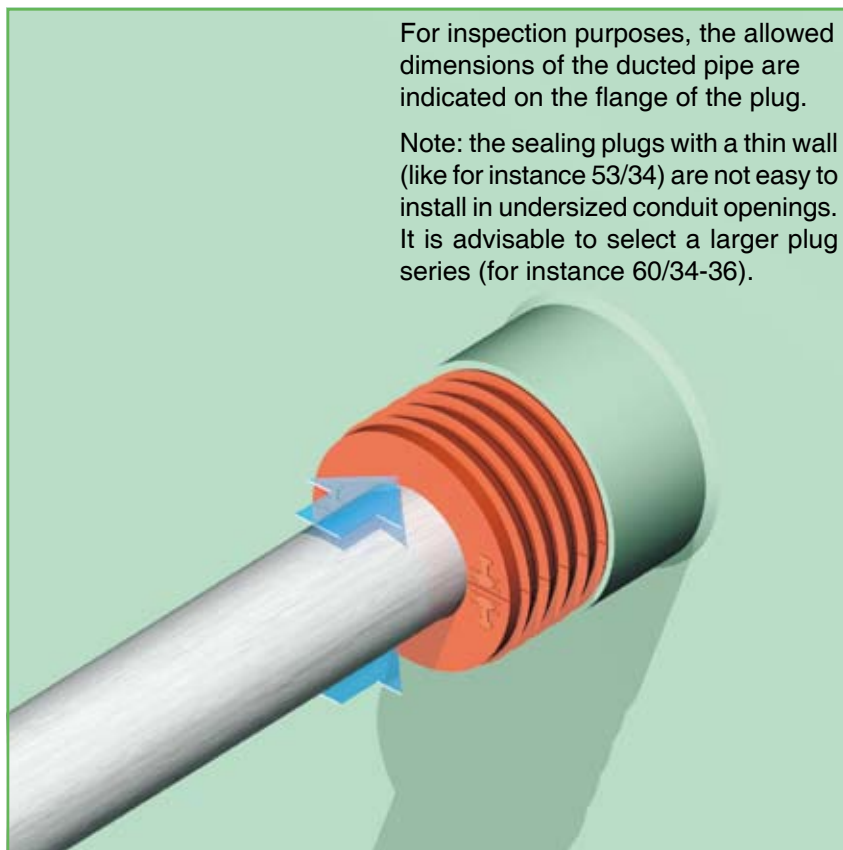
slipsil



SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

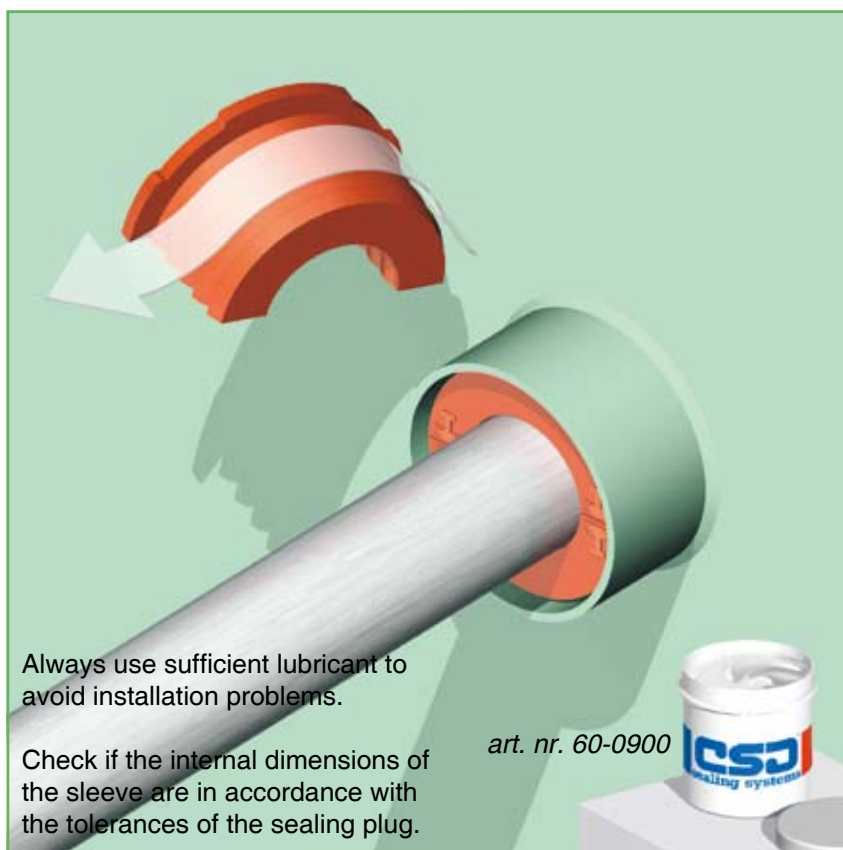
5) Both segments of the DYNATITE® sealing plug are placed around the ducted pipe, then pushed into the conduit sleeve as far as the first serration. Both halves are pushed by hand evenly, serration by serration, further into the conduit sleeve.

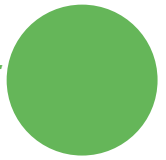
slipsil



6) The surfaces of both segments of the SLIPSIL® sealing plug are then treated with CSD® lubricant all around.

slipsil





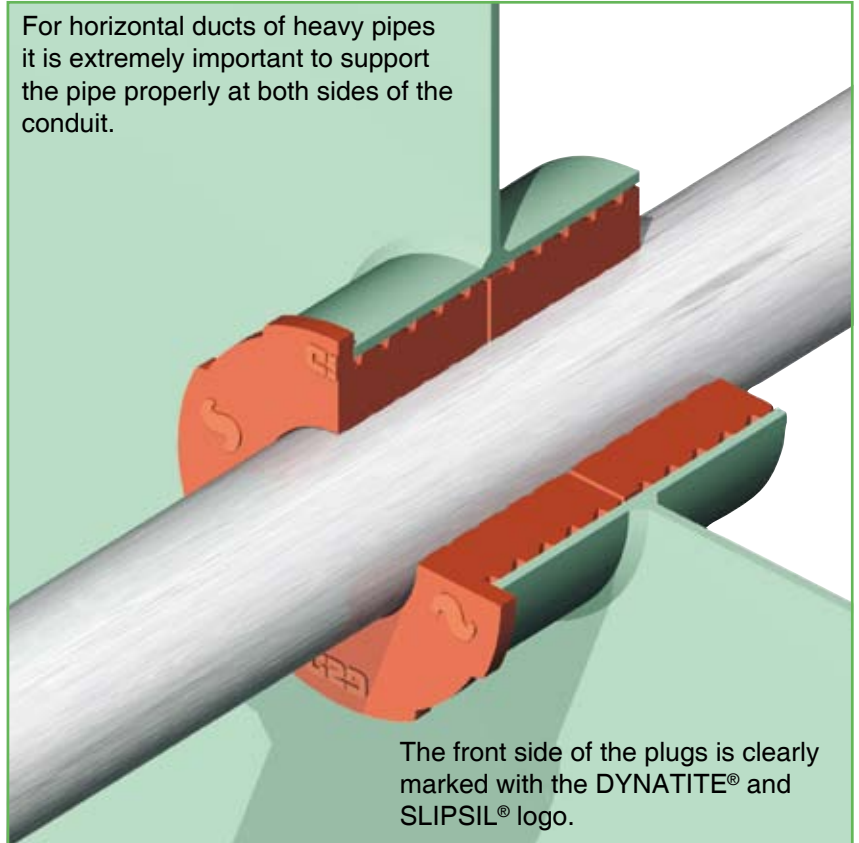
SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

7) Both segments of the SLIPSIL® sealing plug are then installed in the same way as the DYNATITE® plug.

Note: for fire rated conduits, both plugs have to be applied. During insertion of the second plug, the air between both plugs will be compressed, and has to be released from time to time, by inserting a screw driver between both plug halves.

slipsil

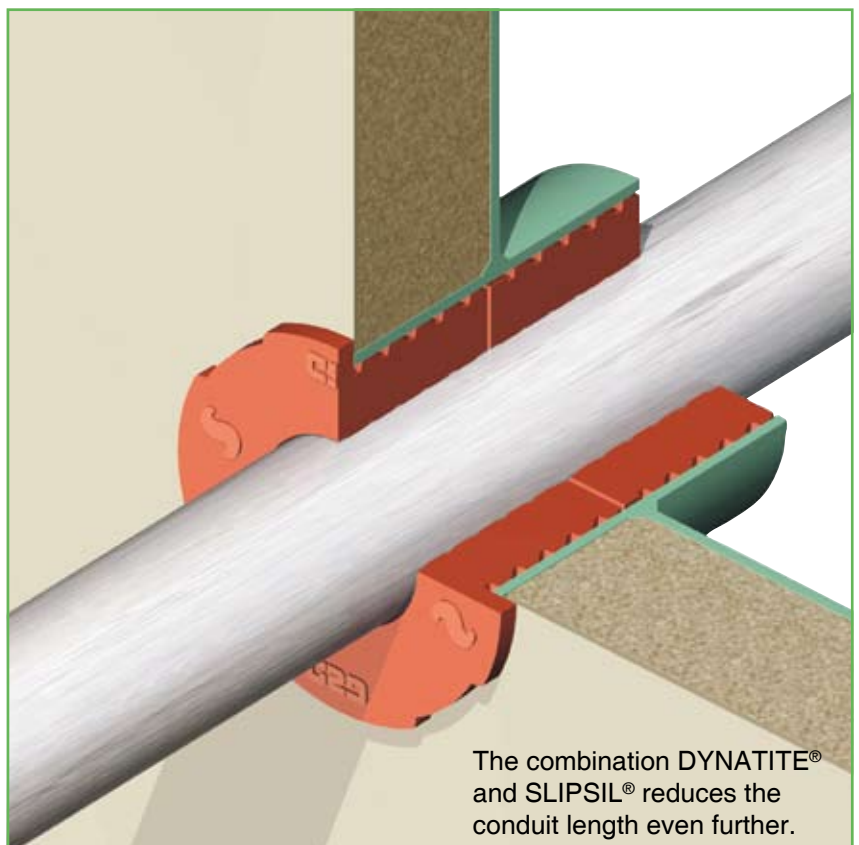
For horizontal ducts of heavy pipes it is extremely important to support the pipe properly at both sides of the conduit.



The front side of the plugs is clearly marked with the DYNATITE® and SLIPSIL® logo.

8) For A-class penetrations (which are insulated), the conduit sleeve needs to be insulated only at the insulated side of the bulkhead or at the lower side of the deck. The ducted pipe has to be insulated according to the specifications on the certified drawings.

slipsil

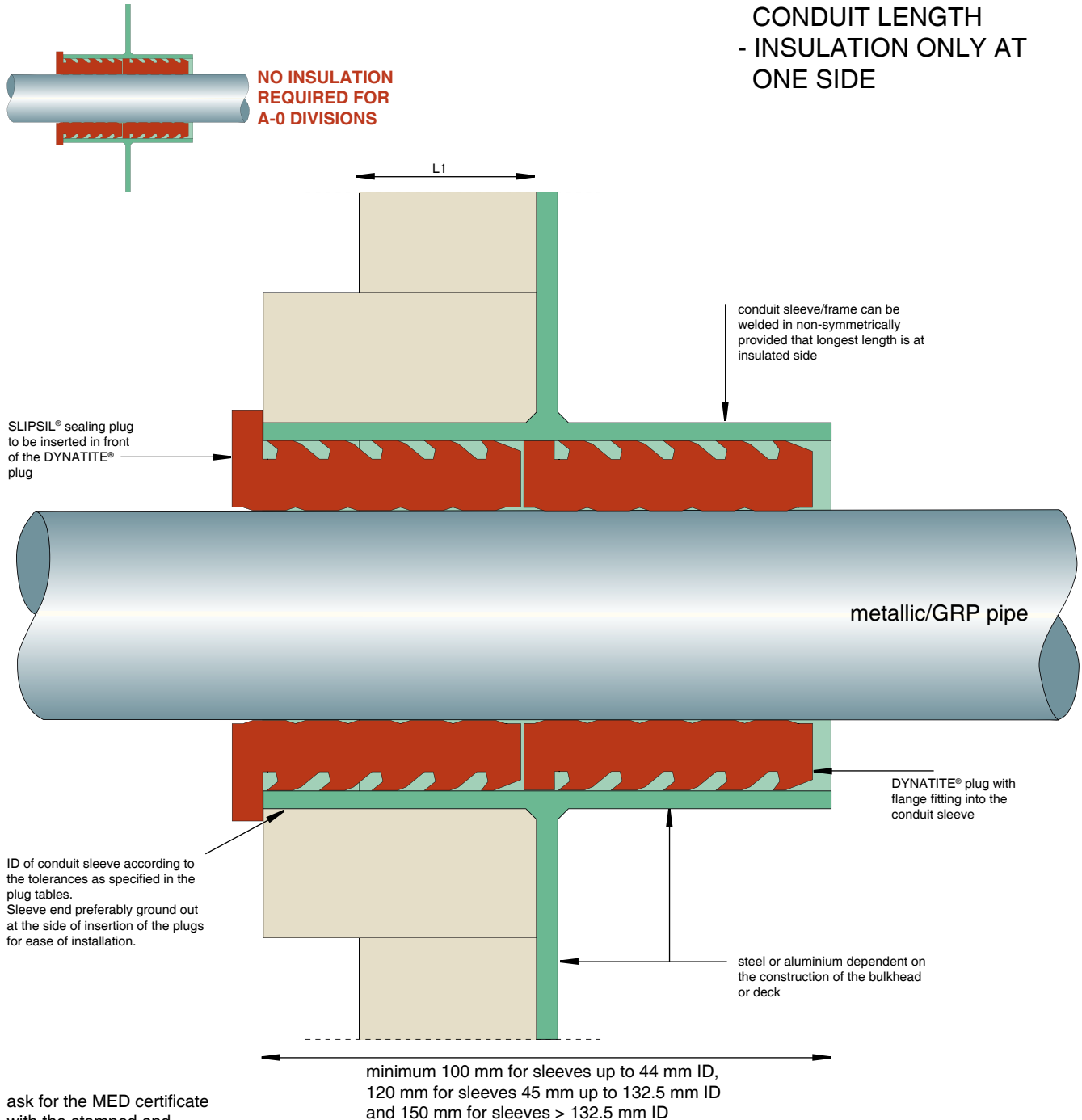


The combination DYNATITE® and SLIPSIL® reduces the conduit length even further.

SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

L1: A-60 approved bulkhead insulation.

- SHORTEST POSSIBLE
CONDUIT LENGTH
- INSULATION ONLY AT
ONE SIDE



ask for the MED certificate
with the stamped and
signed detailed installation
drawings

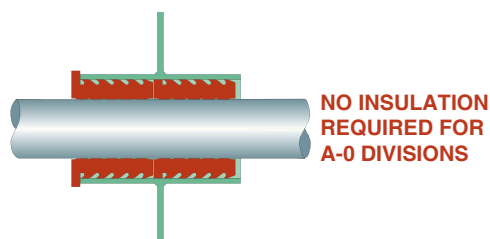
Specifications for A-class according
to EC (MED) certificate MED-B-5067
issued by Det Norske Veritas.
Drawings SL037E, SL038E, SL039E
and SL043E

A0-A60
METALLIC/GRP
PIPE TRANSIT

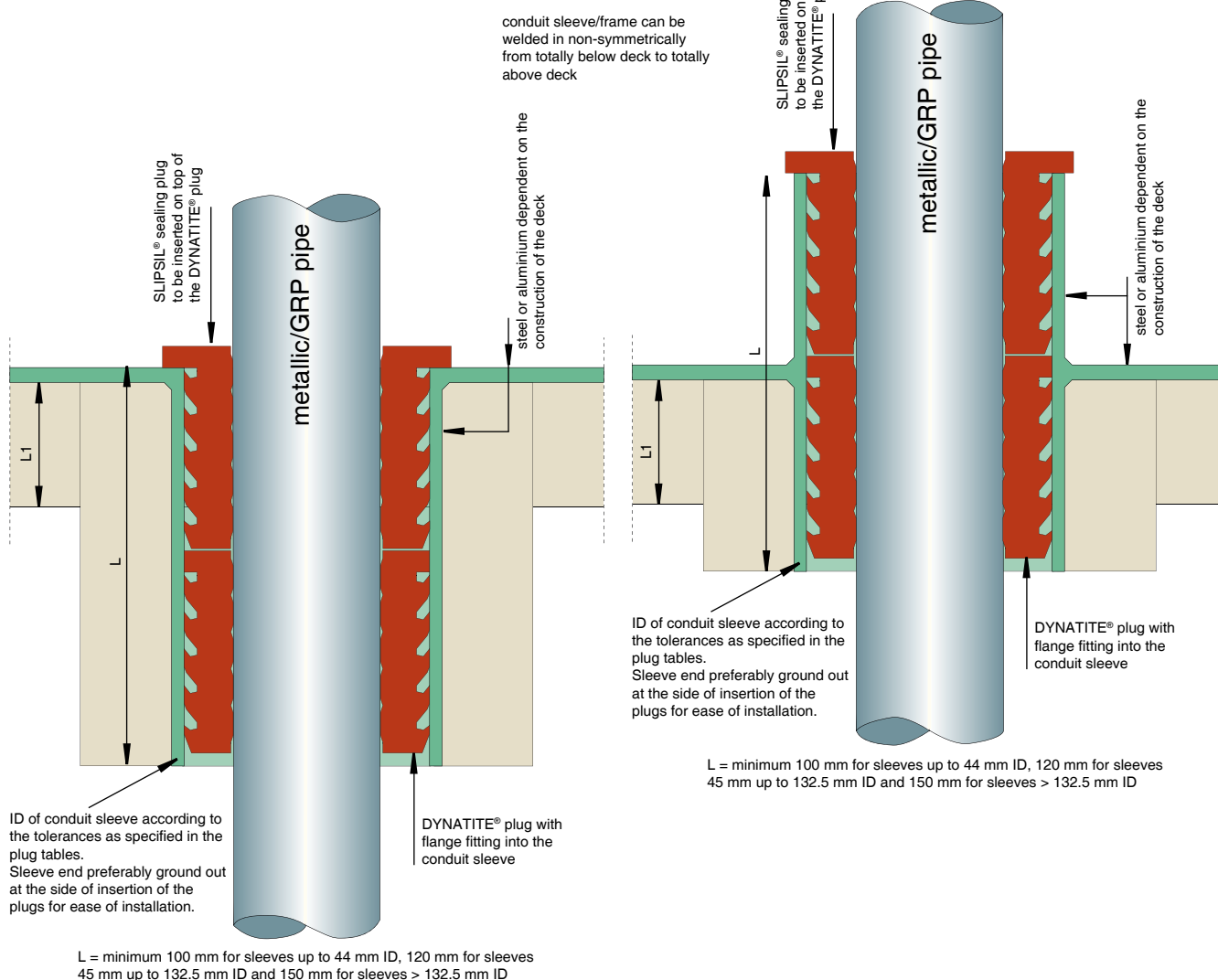


SLIPSIL®/DYNATITE® SEALING PLUGS FOR INSTALLATION FROM ONE SIDE

L1: A-60 approved deck insulation.



- SHORTEST POSSIBLE CONDUIT LENGTH
- INSULATION ONLY AT ONE SIDE



ask for the MED certificate
with the stamped and
signed detailed installation
drawings

Specifications for A-class according
to EC (MED) certificate MED-B-5067
issued by Det Norske Veritas.
Drawings SL037E, SL038E, SL039E
and SL043E

A0-A60
METALLIC/GRP
PIPE TRANSIT

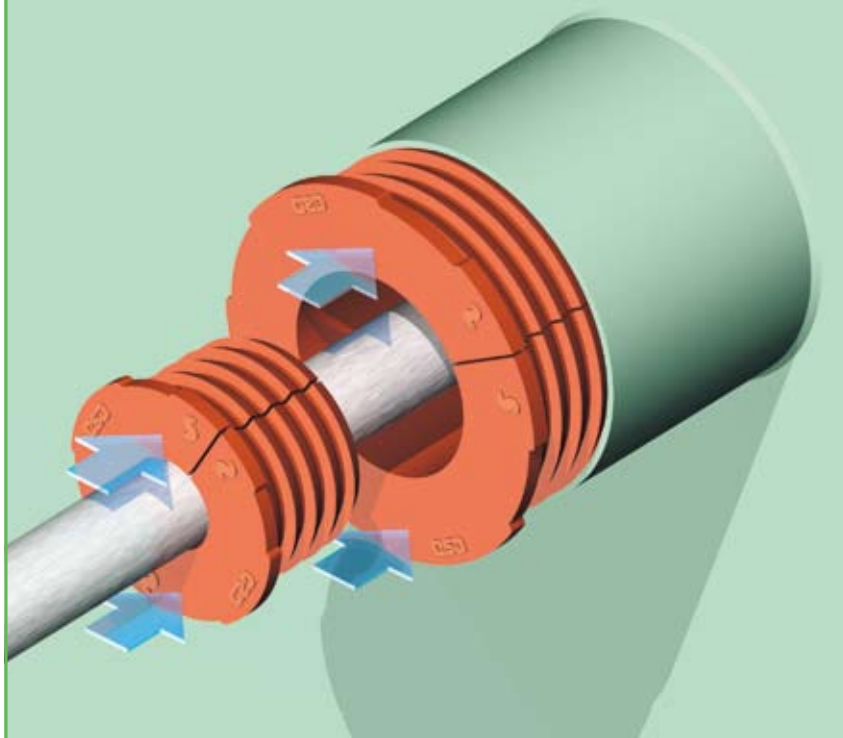
SLIPSIL® ADAPTER PLUGS FOR OVERSIZED PIPE/CABLE ENTRIES



plug type	article number	plug type	article number
68/40AD	40.1995	118/80AD	40.3495
70/40AD	40.2095	122/80AD	40.3595
75/40AD	40.2195	125/80AD	40.3695
78/50AD	40.2295	128/80AD	40.3795
80/50AD	40.2395	131/80AD	40.3895
82/50AD	40.2495	146/118AD	40.3995
90/60AD	40.2595	150/118AD	40.4095
94/60AD	40.2695	152/118AD	40.4195
97/60AD	40.2795	154/118AD	40.4295
100/60AD	40.2895	156/118AD	40.4395
102/60AD	40.2995	160/118AD	40.4495
103/60AD	40.3095	190/150AD	40.4595
105/60AD	40.3195	200/150AD	40.4695
107/60AD	40.3295	203/150AD	40.4795
110/70AD	40.3395	207/150AD	40.4895

SLIPSIL® adapter plugs can be used in cases where conduit sleeves are much larger than the service pipe OD, and no individual sealing plug is available. SLIPSIL® adapter plugs consist of two equal parts, so that they can be installed after the cable of pipe has been laid. The inside of the adapter plug is perfectly smooth, so that the SLIPSIL® single plug can be easily pushed in and obtain an effective seal between the two plugs. Especially developed for ducting flanged pipes.

Always use sufficient lubricant to avoid installation problems.



The set of both plugs can be tapped in using a hammer and a piece of wood.





SLIPSIL® SEALING PLUGS FOR EMC RATED PIPE PENETRATIONS

For the EMC protection of pipe penetrations entering shielded areas, an electrically conductive flexible rubber was developed for the SLIPSIL® pipe penetrations type EMC.

Tests carried out in our laboratories have shown that the electrical resistance from braiding to mass is about 1-2 Ohm.

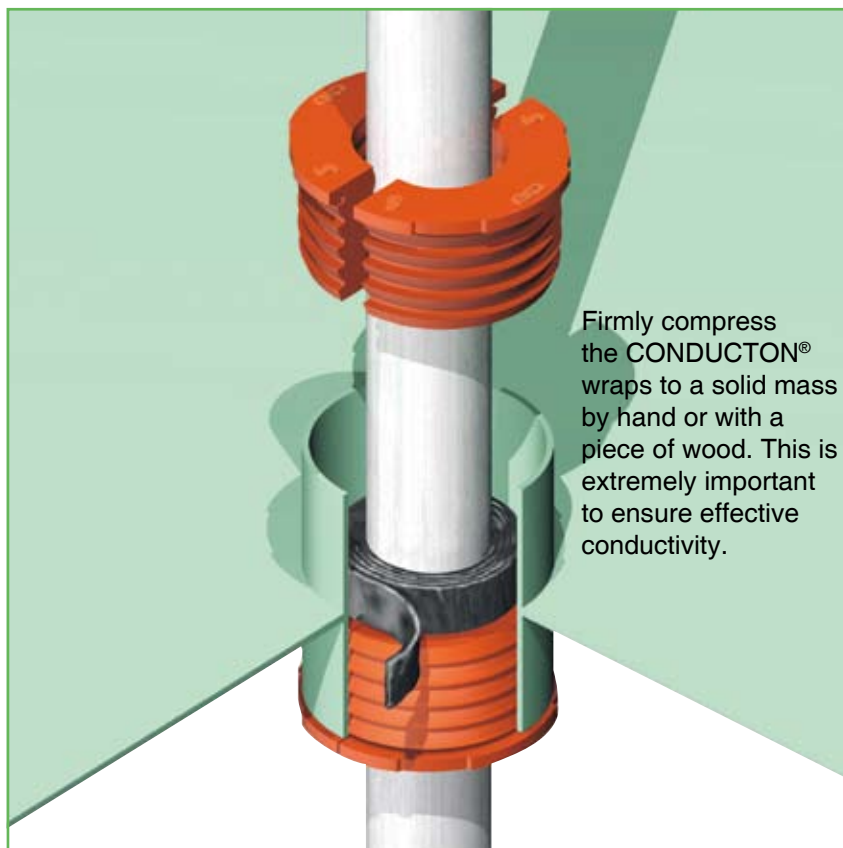
Attenuation tests at DELTA Electronics Testing/Denmark have proven the outstanding damping properties of the SLIPSIL® EMC sealing system.

Attenuation measurements in the range of 0-1000 MHz:

40 mm CONDUCTON® flexible rubber offers an attenuation of 35 - 85 dB.

Instead of the CONDUCTON® flexible rubber, CONDUCTON® putty can be used. The putty has to be cured before inserting the second plug. The attenuation ratings obtained with the CONDUCTON® putty are lower: 10 - 30 dB.

Refer to the brochure of the RISE® and NOFIRNO® cable transits for specifications of the putty.



CONDUCTON® flexible rubber is used to fill the cavity around the ducted pipe in the conduit sleeve. This rubber can be molded by hand and offers the highest attenuation.

CONDUCTON® flexible rubber is absolutely HALOGEN FREE and has a toxicity index of 0,00 (tested according to Naval Engineering Standard NES 713: Issue 3).

Furthermore, CONDUCTON® has a low smoke index (NES 711: Issue 2: 1981), an oxygen index of 38,2% (ISO 4589-2: 1996), and a temperature index of 294 °C (ISO 4589-3: 1996).

CONDUCTON® flexible rubber fulfills the criteria for use on board of UK Navy vessels for EMP/EMI penetrations.

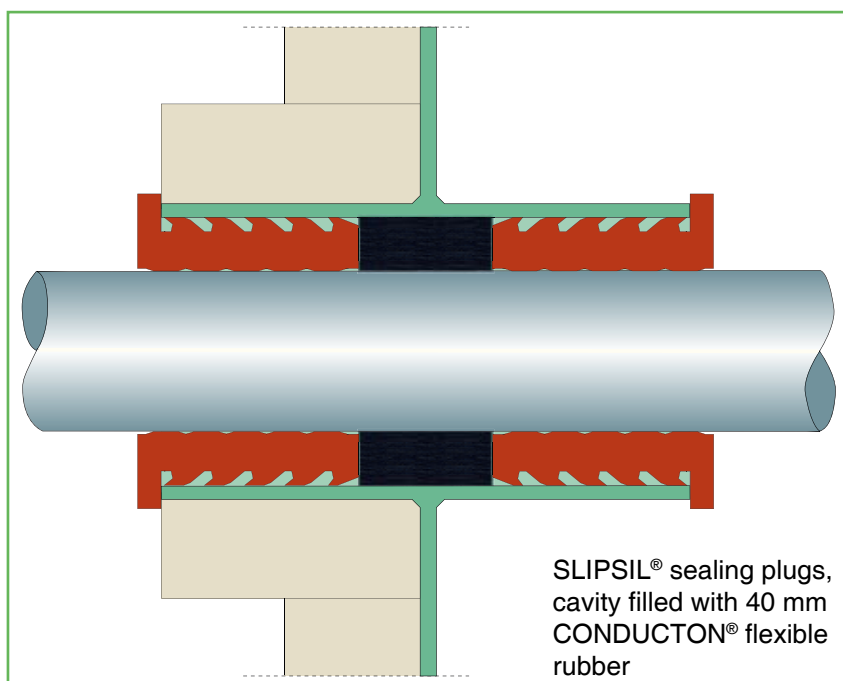
IMPORTANT INFORMATION:

The level of attenuation obtained with a CONDUCTON® penetration is partly dependent on:

- the distance between the ducted pipe and the wall of the conduit sleeve
- the contact surface with the conductive materials
- the greater or lesser homogeneous filling of the conductive mass
- the condition of the contact surface in the conduit sleeve



article number 80.0932



SLIPSIL® sealing plugs, cavity filled with 40 mm CONDUCTON® flexible rubber

SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

CRUSHER® type C-FIT



Note: maximum continuous service temperature of the CRUSHERS® not to exceed 70 °C. Consult our technical support department in case of higher operating temperatures.

CRUSHER® type WRAP



Note: maximum continuous service temperature of the CRUSHERS® not to exceed 70 °C. Consult our technical support department in case of higher operating temperatures.



article number 50.0102

NOFIRNO® is a paste-like compound which is simple to use. NOFIRNO® has a balanced viscosity and can be applied overhead. After applying the sealant, it can be smoothed by means of a wet cloth or by hand. Because the sealant adheres very tightly, the cloth and hands should be wetted with water before use to prevent sealant from sticking to them.

Shelf life is 12 months when stored properly. Since we have no control on storage, we can only guarantee for 6 months.

plastic pipe OD	crusher® type	conduit opening	crusher® length	article number
16	37/16	37.2	140	80.2800
18	37/18	37.2	140	80.2801
20	37/20	37.2	140	80.2802
25	54/25*	37.2	140	80.2815
32	54/32	54.5	140	80.2804
40	82/40*	54.5	140	80.2816
50	82/50	82.5	140	80.2806
63	107/63*	82.5	140	80.2817
75	107/75	107.1	140	80.2808
90	131/90	131.7	140	80.2809
110	159/110	159.3	140	80.2810
125	159/125	159.3	140	80.2811
140	207/140	207.3	160	80.2812
160	207/160	207.3	160	80.2813
16	37/16	37.2	170	80.2840
18	37/18	37.2	170	80.2841
20	37/20	37.2	170	80.2842
25	54/25*	37.2	170	80.2855
32	54/32	54.5	170	80.2844
40	82/40*	54.5	170	80.2856
50	82/50	82.5	170	80.2846
63	107/63*	82.5	170	80.2857
75	107/75	107.1	170	80.2848
90	131/90	131.7	170	80.2849
110	159/110	159.3	170	80.2850
125	159/125	159.3	170	80.2851
140	207/140	207.3	190	80.2852
160	207/160	207.3	190	80.2853
16	35/16	35.9	140	80.2900
18	35/18	35.9	140	80.2901
20	41/20	41.1	140	80.2902
25	53/25*	41.1	140	80.2915
32	53/32	53.9	140	80.2904
40	80/40*	53.9	140	80.2916
50	80/50	80.7	140	80.2906
63	105/63*	80.7	140	80.2917
75	105/75	105.3	140	80.2908
90	130/90	130.8	140	80.2909
110	155/110	155.2	140	80.2910
125	155/125	155.2	140	80.2911
140	202/140	202.7	160	80.2912
160	202/160	202.7	160	80.2913
16	35/16	35.9	170	80.2940
18	35/18	35.9	170	80.2941
20	41/20	41.1	170	80.2942
25	53/25*	41.1	170	80.2955
32	53/32	53.9	170	80.2944
40	80/40*	53.9	170	80.2956
50	80/50	80.7	170	80.2946
63	105/63*	80.7	170	80.2957
75	105/75	105.3	170	80.2948
90	130/90	130.8	170	80.2949
110	155/110	155.2	170	80.2950
125	155/125	155.2	170	80.2951
140	202/140	202.7	190	80.2952
160	202/160	202.7	190	80.2953
* special crushers fitting to the available plug sizes				
wrap 1000x140x2.5 mm				80.2512
wrap 1000x160x2.5 mm				80.2513
wrap 1000x170x2.5 mm				80.2514
wrap 1000x190x2.5 mm				80.2515

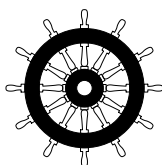
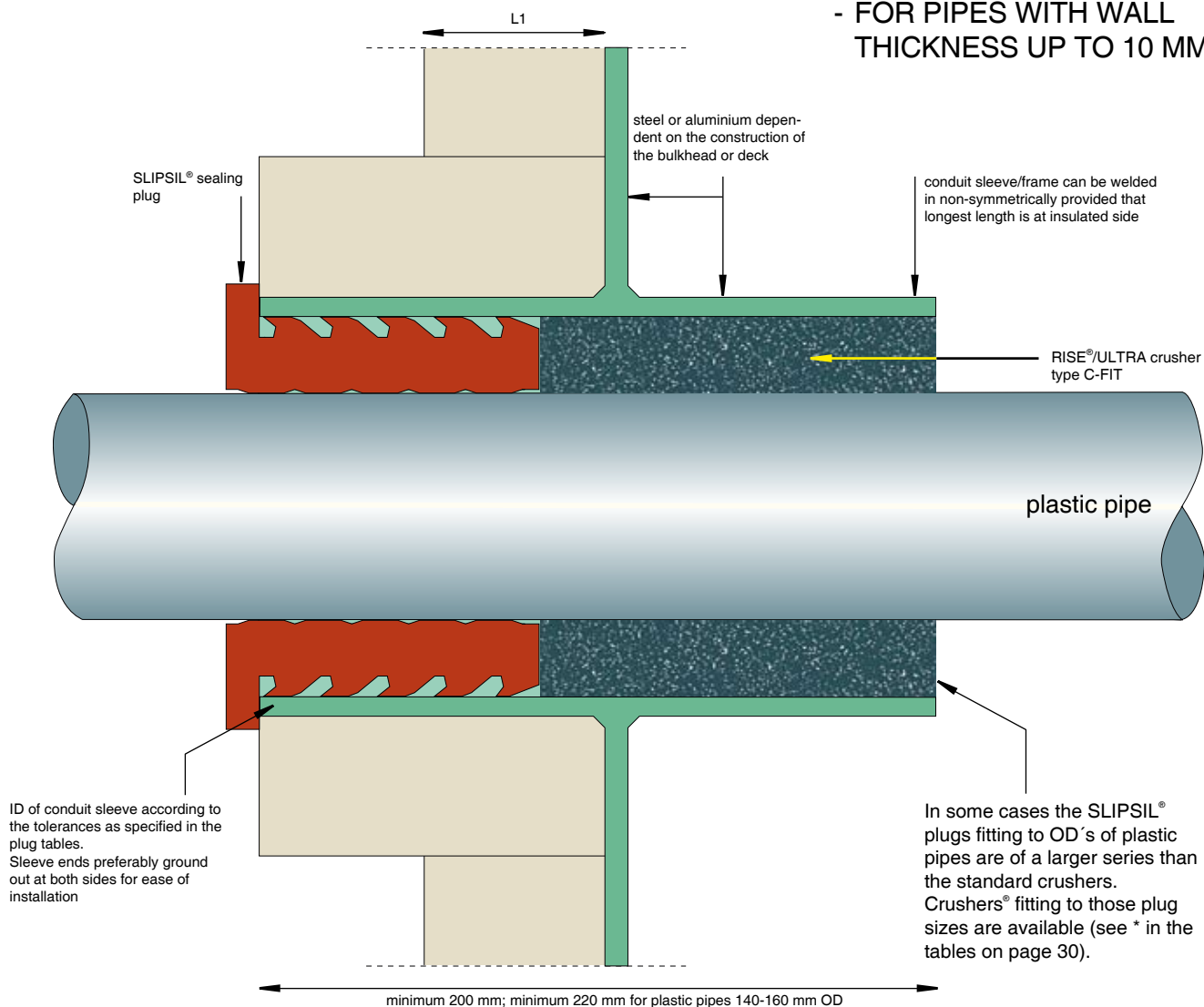
all dimensions in mm



SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

L1: A-60 approved bulkhead/deck insulation.

- FOR ALL PLASTIC PIPES (ABS, PE, PB, PP-R, PVC) UP TO 160 MM OD
- FOR PIPES WITH WALL THICKNESS UP TO 10 MM



ask for the MED certificate with the stamped and signed detailed installation drawings

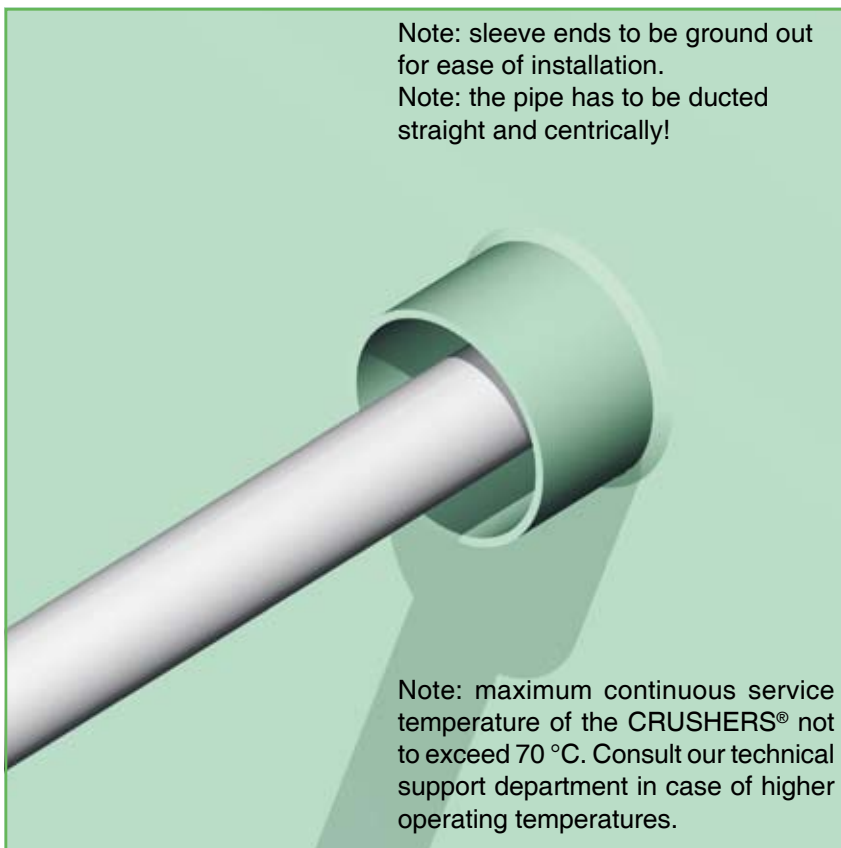
specifications for A-class according to EC (MED) certificate MED-B-5067 issued by Det Norske Veritas.
Drawings SL044E and SL046E

A0-A60 PLASTIC PIPE TRANSIT

SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

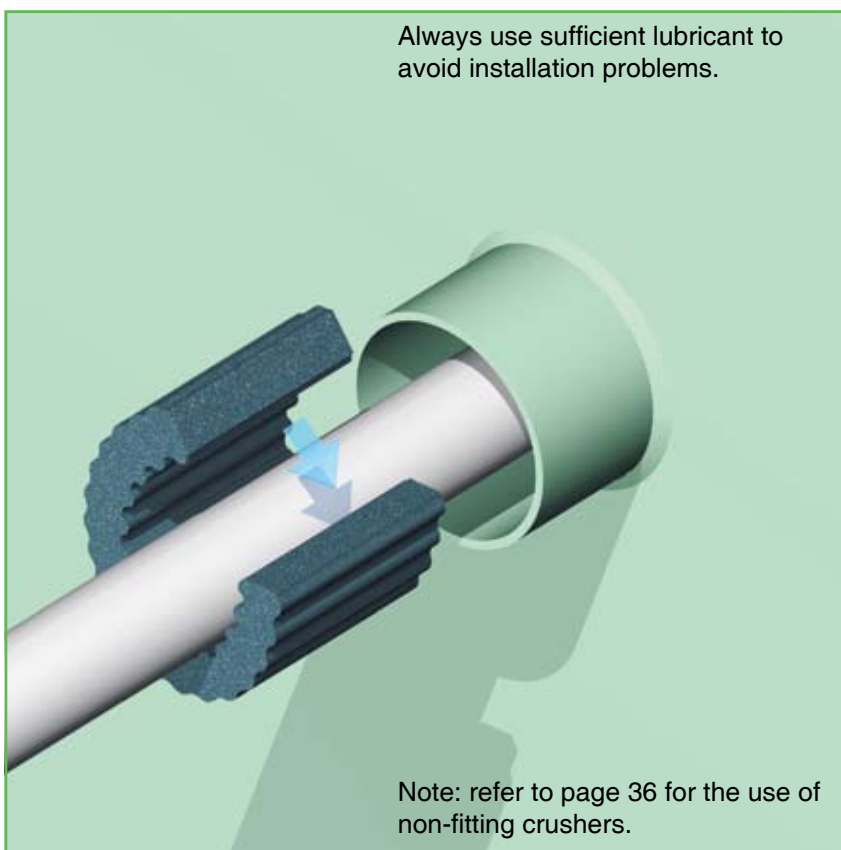
1) Before starting the installation procedure, any dirt, oil residues or welding spots should be removed from the conduit sleeve. For ease of installation, it is advisable to grind out the front side of the sleeve.

slipsil



2) The exact fitting RISE®/ ULTRA C-FIT crusher, which is split lengthwise, is folded around the ducted plastic pipe.

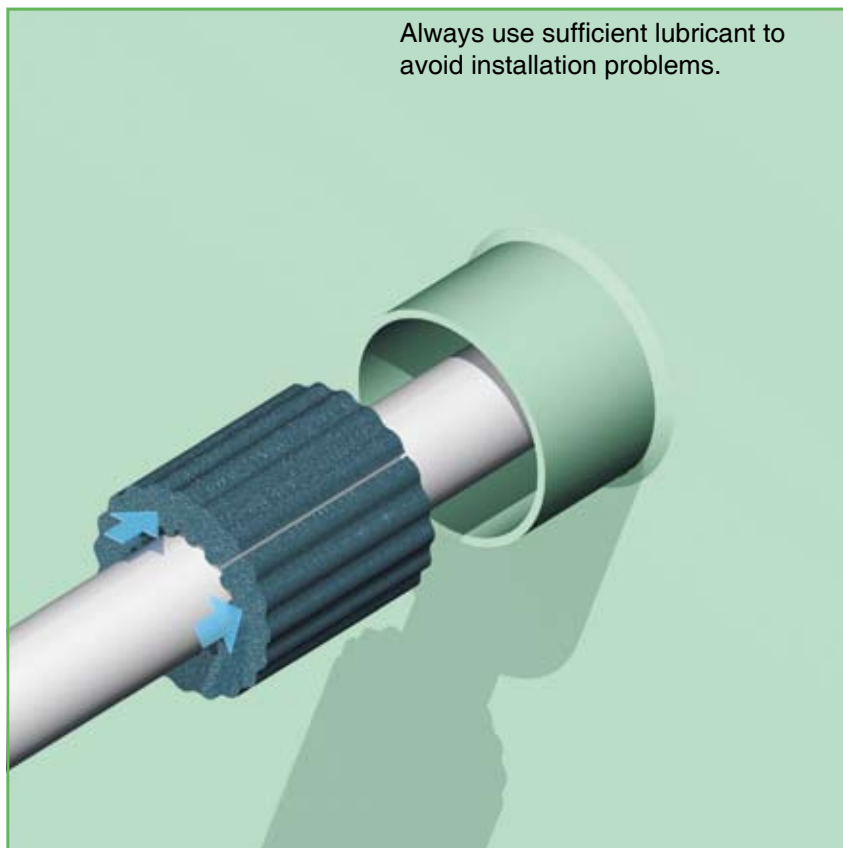
slipsil





SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

3) In case of a tight fitting crusher, the outside of the crusher and the inner wall of the conduit should be treated with CSD® lubricant for ease of installation. Push the crusher into the conduit sleeve. Check for a tight fit.



slipsil

4) The RISE®/ULTRA C-FIT crusher should be pushed in so that the first serrated profiles of the SLIPSIL® sealing plug can be inserted in the conduit sleeves. The segments of the SLIPSIL® sealing plug are treated with CSD® lubricant all around.

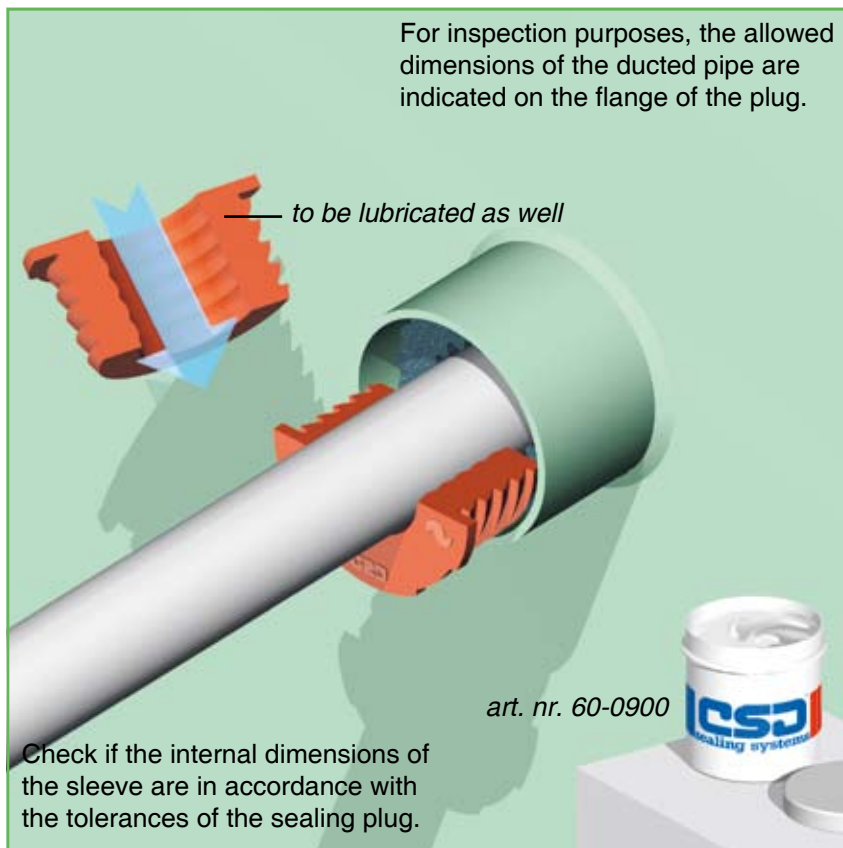


slipsil

SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

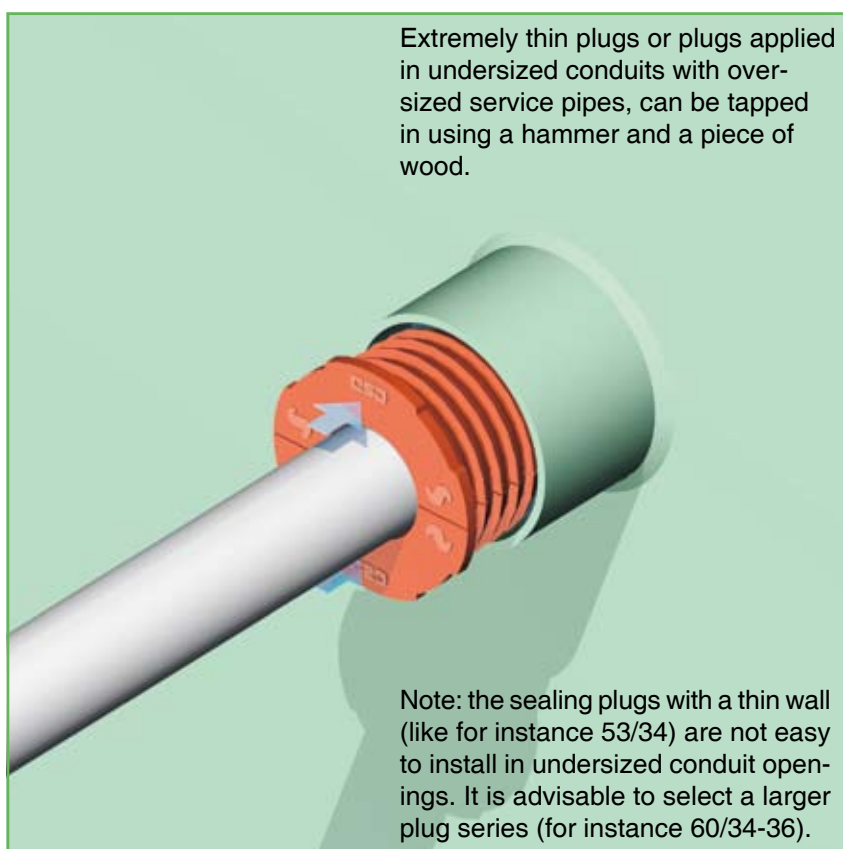
5) Both segments of the SLIPSIL® sealing plug are placed around the ducted pipe and then pushed into the conduit sleeve as far as the first serration. The first serration is smaller than the other serrations to make this procedure very easy.

slipsil



6) Then both segments of the SLIPSIL® sealing plug are pushed by hand evenly, serration by serration, further into the conduit sleeve.

slipsil

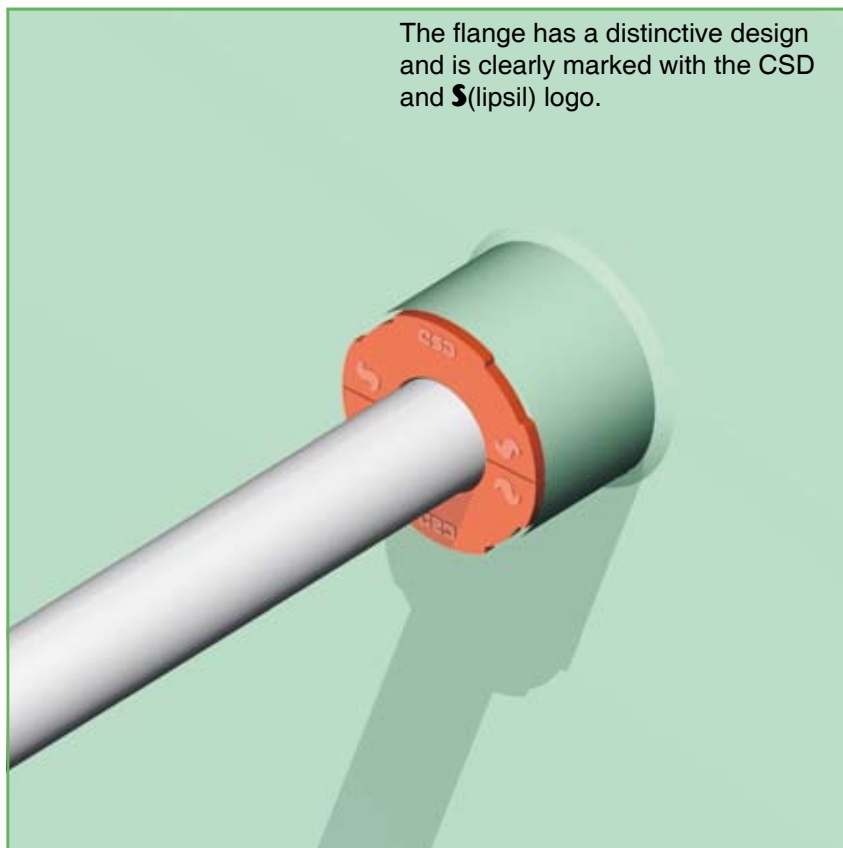




SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

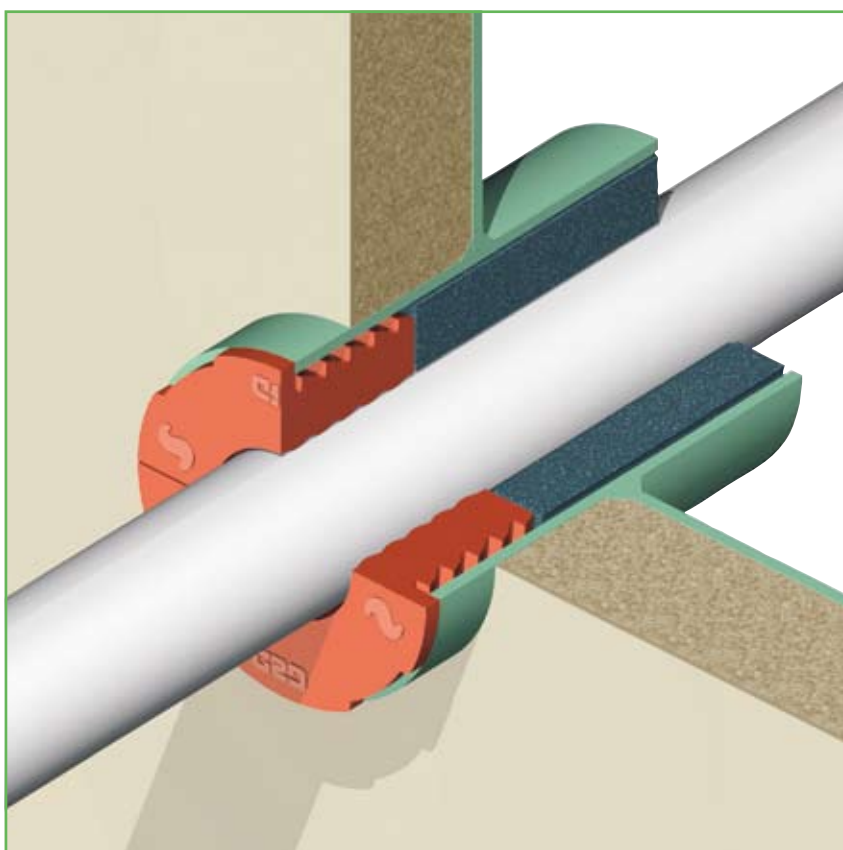
7) The flanged edge of the sealing plug must be flush against the front side of the conduit sleeve.

Note: tightness and installation are optimum at nominal sizes (for instance for 60/34-36 optimum is 60 mm ID of the sleeve and 34 mm OD of the ducted pipe).



slipsil

8) For A-class penetrations (which are insulated), the conduit sleeve needs to be insulated only at the insulated side of the bulkhead or the lower side of the deck. The ducted pipe does not need to be insulated.



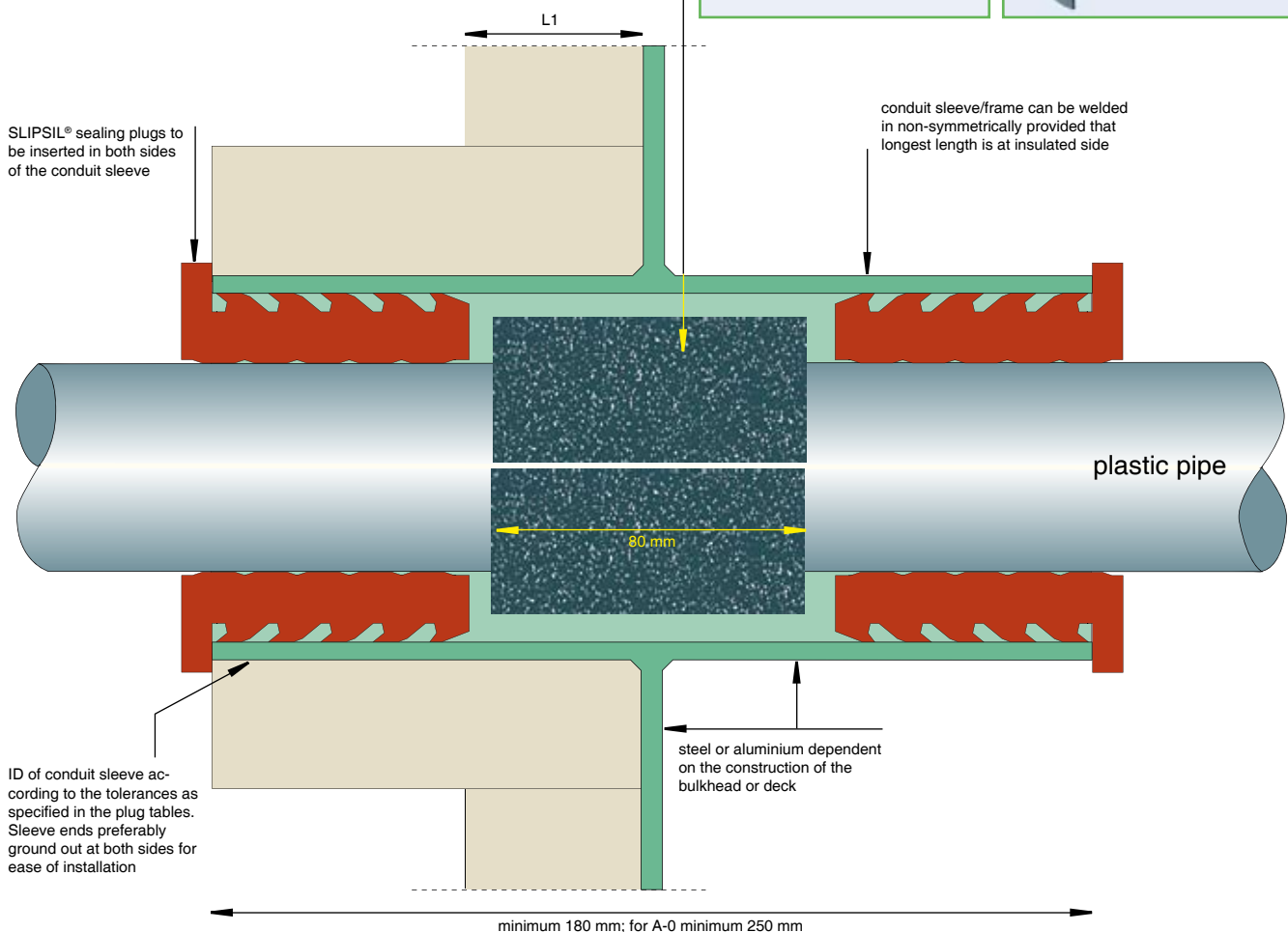
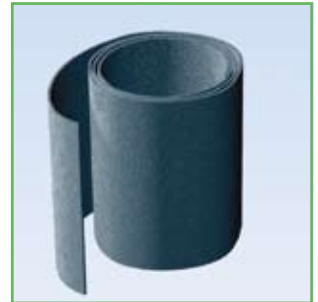
slipsil

SLIPSIL® SEALING PLUGS FOR PLASTIC PIPE PENETRATIONS

L1: A-60 approved bulkhead/deck insulation.

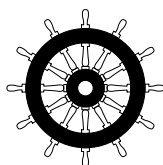
For plastic pipes up to 225 mm OD

80 mm wide strips of RISE® rubber wrapped around the ducted plastic pipe in a thickness $1/4 \times D$ of the ducted pipe, rounded off to ± 5 mm. For pipe sizes up to 42 mm insert sleeves are available in a length of 80 mm with the required wall thickness as an alternative for wrapping the strips around these pipes.
Available sizes: 12/6, 12/8, 16/10, 18/12, 22/14, 27/16, 27/18, 31/20, 35/22, 39/24, 39/26, 46/28, 46/30, 52/32, 52/34, 58/36, 58/38, 64/40 and 64/42.



Note: maximum continuous service temperature of the CRUSHERS® not to exceed 70 °C. Consult our technical support department in case of higher operating temperatures.

specifications for A-class according to EC (MED) certificate MED-B-5067 issued by Det Norske Veritas. Drawings SL017E up to SL023E



ask for the MED certificate with the stamped and signed detailed installation drawings

A0-A60 PLASTIC PIPE TRANSIT

BEELE - RESEARCH & DEVELOPMENT PRODUCTS FOR SPECIAL APPLICATIONS

NOFIRNO®

NEW TECHNOLOGY

- Approved for harshest fire ratings for pipe penetrations (A, H and Jet Fire class).
- Allows substantial movement of the ducted pipe within the conduit.
- High pressure ratings - designed for gas and/or watertight penetrations.
- Prevents corrosion inside the penetration.
- Longest service life and best Total Cost of Ownership on the market.
- NOFIRNO® rubber sleeves and sealant will remain stable and not be consumed by fire.
- **Breakthrough - MULTI-ALL-MIX SYSTEM®**
- Approved for any combination of cable and/or metallic, GRP or plastic pipes!



NOFIRNO®

NEW TECHNOLOGY

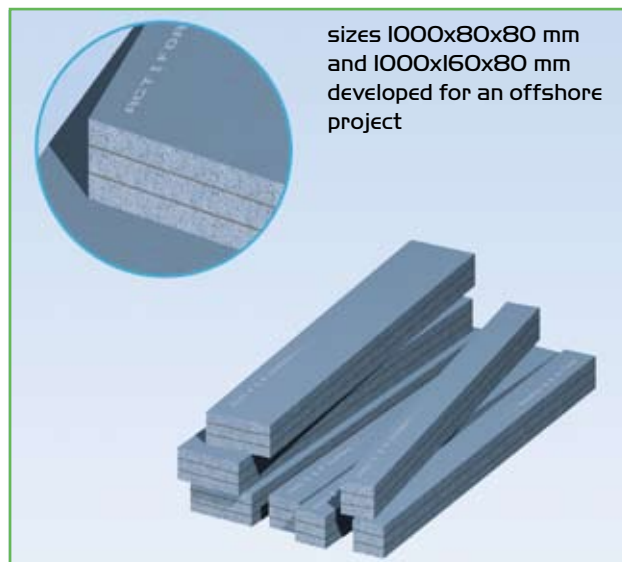
- Gaskets and rubber sheets for applications in which the transits, coamings or conduit sleeves are bolted to the partition.
- Successfully tested for A-class RISE®, RIACNOF® and NOFIRNO® sealing systems for multi-cable and pipe transits bolted to the partitions.
- NOFIRNO® rubber will remain stable and not be consumed by fire.
- NOFIRNO® rubber has excellent resistance against UV, Ozone and weathering.
- Wide temperature range: -50 °C up to +180 °C.
- **Proven - harshest fire exposure**
- Special sizes of gaskets upon request.
- Products made of NOFIRNO® rubber upon request.

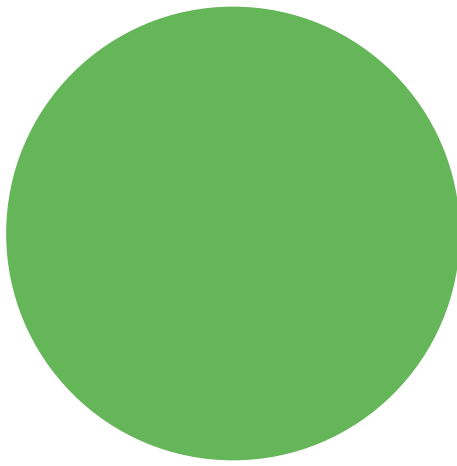


ACTIFOAM®/ULTRA

NEWEST TECHNOLOGY

- Sealing of gaps and openings in constructions against the ingress of moisture and to avoid flame spread.
- ACTIFOAM® has high thermal insulation values due to the close cellular structure.
- RISE®/ULTRA - adhesive properties under fire load.
- **Breakthrough - ACTIFOAM® sheets can be layered with RISE/ULTRA sheets.**
- The sandwich construction acts as a "bridge bearing" enabling the carrying of very high loads.
- Highest fire ratings achievable due to the unique combination of the two rubber grades.
- Successfully subjected to two hour hydrocarbon fire.





WE CARE

**BEELE ENGINEERING:
A COMPANY DEDICATED TO SAFETY
FOR OVER 35 YEARS**



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**Websites: <http://www.beele.com> (and/or www.actifoam.com, www.firsto.com, www.nofirno.com,
www.rise-systems.com, www.rise-nofirno.com, www.riswat.com and www.slipsil.com)**