INTRODUCTION

Allow me to introduce you to the products of the German company DDL.

The product family provides professional solutions for the penetration of utilities (water, sewage, gas, electrical and ventilation) in buildings and engineering facilities, but also provides several other unique solutions for its users.

Please see the enclosed product brochures for more information on DDL systems.

In order to get to know the product family better, we can also present the elements of the system to you and / or your employees through product samples during a personal meeting.

We are at your or your staff's disposal for any questions you may have.

Trusting in our successful future cooperation,
Kind regards:

Márton Szira
Owner and managing director

ORDER AND INFORMATION:

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SZIREXPRO

DDL® Durchführungstechnik Dichtsysteme Lutz

PRODUCT INFORMATION

DDL PIPE PENETRATIONS *** full product range ***

The product family provides professional solutions for penetrations in buildings, engineering facilities and utilities (water, sewage, gas, electric and ventilation)

RING-SEAL modular ring sealing system up to 5 bar pressure

PIPE-SEAL rubber insert clamp seal up to 5 bar pressure

BEF Snap-In

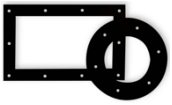
KG-MK wall collar from EPDM rubber up to 5bar pressure

ASM rubber casing end seal

PQZ (Polymer - quartz sand - cement) asbestos-free polymer cement wall sleeve

PROTECTIVE PIPES (steel and collar protective pipes, pipe receivers, wall sleeves, wall consoles)

RUBBER FLAT SEALS



PLASTIC CASING SPACERS

SANI-PIPE repair set up to 2 bar pressure

GSD rubber sealing rings with metal inserts

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Dichtsysteme
Lutz

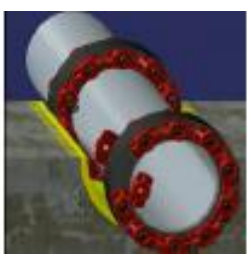
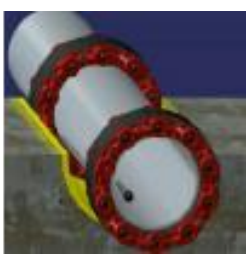
PRODUCT INFORMATION

DDL Ring-Seal

Ring-seal systems up to 5 bar pressure
(up to 50 m water column pressure)

Ring-Seal modular seal for building entries, wall penetrations, and cable penetrations

Modular ring seals can be used when penetrating supply and disposal lines through building walls, ceilings, or floors. There are different ways to seal the annular space between pipe and core-drilled hole, PQZ wall sleeve, cable conduit, or wall collar pressure-tight. We offer compact pipe seals as well as modular ring seals or permanently sealing pipes and cables. The ring seal is composed of single modules, which are determined by using a selection software. The ideal module is chosen from 16 different module sizes, depending on the size of the annular space. Based on the selected module, the ring seal is then assembled in our plant in the shape of a link chain. There is a variety of materials for different applications and pressure levels like pressing and non-pressing water (pressure plates consisting of polyamide, elastomers, connecting parts made of galvanized or stainless steel). EPDM standard rubber is highly resistant to many common fluids; nitrile rubber is resistant to oils, fats, fuels and many types of solvents. We offer an annular seal especially made for the use in pipelines carrying drinking water and complying with the KTW guideline*. All our annular seals and pipe penetrations are also suitable for subsequent installation.

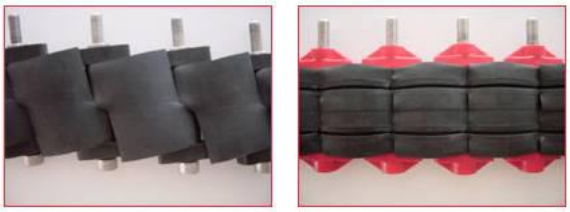



Why RING-SEAL products are different from others:

1. Watertight safety grooves all around
2. Expansion joint-free, fork tying technique
3. Non-rotating clamps (wedge edge presser foot design)

Result:

Member chain linking technique
with 10% less load elongation



Conventional Z shape chain tying technique

DDL fork tying technique

RING-SEAL product range

General product sign: **Lu-GT**

Manufactured in two types of pressure resistance:

1. **Lu-GT 20**, up to 20 m water columnn pressure (2 bar)
2. **Lu-GT 50**, up to 50 m water column pressure (5 bar)

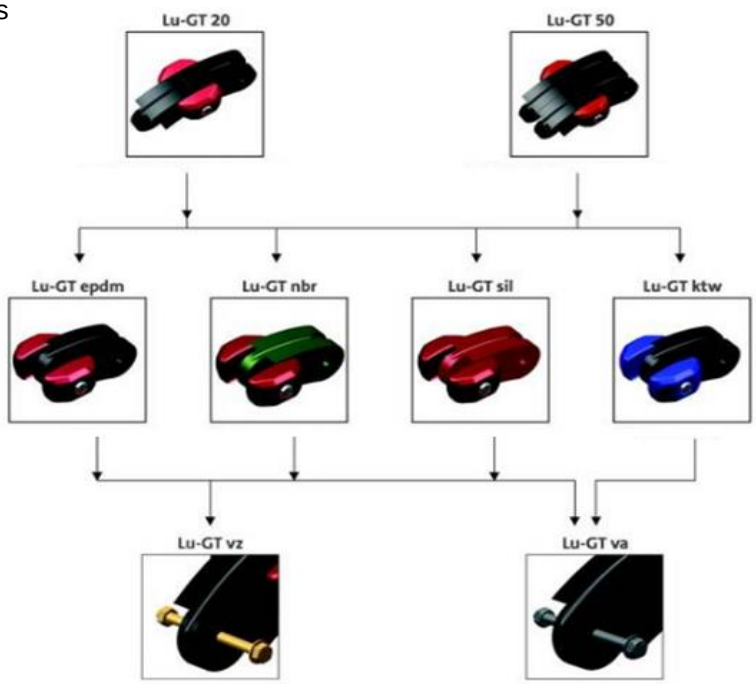
4 types are available in both pressure resistance

1. **Lu-GT epdm**, standard rubber for general use, between -40 - + 120 ° C
2. **Lu-GT nbr**, NBR rubber in aggressive environments, resistant to oils, greases and many types of solvents
3. **Lu-GT sil**, silicone rubber for installation in extreme temperature conditions, from -50 to + 230 ° C (price offer can only be given knowing the size of the order!)

All three types are available with two types of fasteners (screw + nut):

a. **vz**, galvanized
b. **va**, stainless

4. **Lu-GT KTW**, sealing rings for drinking water systems, always shipped with stainless steel screws



Tender / Order proposal:

An example of a product name when e.g. the inner diameter of the protective pipe is 120mm, the outer diameter of the utility pipe is 80mm and we want to install it in both ends of the protective pipe, in an agressive environement :
DDL/Szirex Ring-Seal ring seals 2 x 8 pieces x Lu-GT 300 / 50 nbr stainless

RING-SEAL Selection

RING-SEAL selection excel file is available on the website: http://szirex.hu/download/download.htm
All you have to do is enter TWO data:

1. Casing pipe (protective tube, core hole) inner diameter
2. Utility pipe outer diameter

After entering the two data, the table automatically gives you the options. If more than one option is provided in the table, select the sealing ring with the smallest size "difference" between the pipes and the ring seal and / or the gap above and below the ring seal as evenly as possible.

RING-SEAL product range

RING-SEAL UNIT MODULES					
UP TO 2 BAR PRESSURE (20M WATER COLUMN PRESSURE)					
Type	EPDM for normal use		NBR Nitril in oily, greasy, aggressive environments		KTW for drinking water systems
	vz / galvanized item number	va / stainless item number	vz / galvanized item number	va / stainless item number	va / stainless item number
Lu-GT 200	020-0250-150	021-0250-100	022-0250-350	023-0250-300	024-0250-930
Lu-GT 250	020-0250-151	021-0250-101	022-0250-351	023-0250-301	024-0250-931
Lu-GT 275	020-0250-152	021-0250-102	022-0250-352	023-0250-302	024-0250-932
Lu-GT 300	020-0250-154	021-0250-106	022-0250-354	023-0250-306	024-0250-934
Lu-GT 325	020-0250-158	021-0250-108	022-0250-358	023-0250-308	024-0250-936
Lu-GT 350	020-0250-160	021-0250-110	022-0250-360	023-0250-310	024-0250-938
Lu-GT 375	020-0250-162	021-0250-112	022-0250-362	023-0250-312	024-0250-940
Lu-GT 400	020-0250-164	021-0250-114	022-0250-364	023-0250-314	024-0250-942
Lu-GT 415	020-0250-166	021-0250-116	022-0250-366	023-0250-316	024-0250-944
Lu-GT 425	020-0250-168	021-0250-118	022-0250-368	023-0250-318	024-0250-946
Lu-GT 475	020-0250-170	021-0250-120	022-0250-370	023-0250-320	024-0250-948
Lu-GT 500	020-0250-172	021-0250-122	022-0250-372	023-0250-322	024-0250-950
Lu-GT 525	020-0250-174	021-0250-124	022-0250-374	023-0250-324	024-0250-952
Lu-GT 575	020-0250-176	021-0250-126	022-0250-376	023-0250-326	024-0250-954
Lu-GT 600	020-0250-178	021-0250-128	022-0250-378	023-0250-328	024-0250-956
Lu-GT 650	020-0250-180	021-0250-130	022-0250-380	023-0250-330	024-0250-958
UP TO 5 BAR PRESSURE (50M WATER COLUMN PRESSURE)					
Lu-GT 200	050-0250-050	051-0250-000	052-0250-250	053-0250-200	054-0250-900
Lu-GT 250	050-0250-051	051-0250-001	052-0250-251	053-0250-201	054-0250-901
Lu-GT 275	050-0250-052	051-0250-002	052-0250-252	053-0250-202	054-0250-902
Lu-GT 300	050-0250-054	051-0250-006	052-0250-254	053-0250-206	054-0250-904
Lu-GT 325	050-0250-058	051-0250-008	052-0250-258	053-0250-208	054-0250-906
Lu-GT 350	050-0250-060	051-0250-010	052-0250-260	053-0250-210	054-0250-908
Lu-GT 375	050-0250-062	051-0250-012	052-0250-262	053-0250-212	054-0250-910
Lu-GT 400	050-0250-064	051-0250-014	052-0250-264	053-0250-214	054-0250-912
Lu-GT 415	050-0250-066	051-0250-016	052-0250-266	053-0250-216	054-0250-914
Lu-GT 425	050-0250-068	051-0250-018	052-0250-268	053-0250-218	054-0250-916
Lu-GT 475	050-0250-070	051-0250-020	052-0250-270	053-0250-220	054-0250-918
Lu-GT 500	050-0250-072	051-0250-022	052-0250-272	053-0250-222	054-0250-920
Lu-GT 525	050-0250-074	051-0250-024	052-0250-274	053-0250-224	054-0250-922
Lu-GT 575	050-0250-076	051-0250-026	052-0250-276	053-0250-226	054-0250-924
Lu-GT 600	050-0250-078	051-0250-028	052-0250-278	053-0250-228	054-0250-926
Lu-GT 650	050-0250-080	051-0250-030	052-0250-280	053-0250-230	054-0250-928

Major Hungarian references where ring RING-SEAL was used:

* Engine rooms in Metro line 4 stations in Budapest, installation in watertight concrete at all stops

* Underground garage of Hungarian Parliament

* Várkert Bazár

* Audi Győr

* Mercedes-Benz Kecskemét

* Szent Ilona Borház, Winery Somló Hill, pipelines coming from the foundations of the paltes, as well as protective piping and sealing with Ring-Seal of all pipelines coming from the side below the ground level.

* Porsche Interautó Buda, insulation of sub-ground penetrations

* During the expansion of the Hospital in Szekszárd, a protective pipe was installed for the various wall penetrations, as no protection against water pressure was required

* For the expansion of the Nuclear Power Plant of Paks, during the remaking of a lime pool, the watertight sealing between a carbon steel casing pipe installed into the wall of a ferro-concrete pit and a KPE casing tube that goes through of it

* Biogas plant in Tatabánya, sealing of wall penetration of Fermentor tank, as well as wall penetrations using 133 ring seals

* Héjja Testvérek Biogas Plant, Csongrád, sealing gas pipe penetrations

PRODUCT INTRODUCTION

DDL Pipe-Seal

Clamp seal

- **Used in both structural and civil engineering for electrical, gas and plumbing penetrations**
- **By squeezing the metal sheets on both sides of the seal, the intermediate elastomeric ring expands and closes the gaps between the utility and protective pipes**
- **Povides sealing up to 1,5, 3 and 5 bars of pressure**
- **Also provides sound insulation**

Porduct features

- Available in all commonly used sizesEgyedi igények, méretek lehetségesek
- Can be disassembled, reusedFélköríves szorítólemezek használatánál módosítható
- Provides water pressure seal up to 5 bar
- Made of high quality EPDM rubber and stainless steel fasteners
- Can be used up to 80 degrees of utility pipe obliquity
- Adjustable hole “onion system” in DN 100 size

The design of the Pipe-Seal sealing rings allows:

1. **Closed (there is a steel clamping plate on each side of the rul**
   a. Single rubber (30mm) up to 3 bar pressure
   b. Double rubber (60mm) up to 5 bar pressure

2. **Open (steel clamping plates are semicircular, two-two on both sides)**

   a. Single rubber (30mm) up to 3 bar pressure
   b. Double rubber (60mm) up to 5 bar pressure

3. **Adjustable hole „onion system"**
   Into DN 100 mm inner diameter casing pipe
   It can seal utility pipes with a diameter of 20 to 65 mm

PRODUCT RANGE:

DDL Pipe-Seal

Made of EPDM rubber and stainless steel fasteners

Casing pipe inner Ø mm	Utility pipe external Ø max. mm	Item number EPDM 30mm closed design	Item number EPDM 30mm open design	Item number EPDM 60mm closed design	Item number EPDM 60mm open design
60	34	411-0600-030	412-0600-030	421-0600-030	422-0600-030
70	35	411-0070-030	412-0070-030	421-0070-030	422-0070-030
80	45	411-0080-030	412-0080-030	421-0080-030	422-0080-030
100	66	411-0100-030	412-0100-030	421-0100-030	422-0100-030
125	87	411-0125-030	412-0125-030	421-0125-030	422-0125-030
150	112	411-0150-030	412-0150-030	421-0150-030	422-0150-030
200	162	411-0200-030	412-0200-030	421-0200-030	422-0200-030
250	212	411-0250-030	412-0250-030	421-0250-030	422-0250-030
300	260	411-0300-030	412-0300-030	421-0300-030	422-0300-030
350	300	411-0350-030	412-0350-030	421-0350-030	422-0350-030
400	350	411-0400-030	412-0400-030	421-0400-030	422-0400-030
450	400	411-0450-030	412-0450-030	421-0450-030	422-0450-030
500	450	411-0500-030	412-0500-030	421-0500-030	422-0500-030

Pipe-Seal

Adjustable hole "onion system"

Casing pipe inner Ø mm	Utility pipe external Ø max. mm	Item number EPDM 30mm closed design
100	20 - 65	412-0100-000

Tender / Order proposal:

pl: 30mm thick, open design Pipe-Seal to 100mm inner diameter casing pipe
65 mm utility pipe
DDL/Szirex **Pipe-Seal 100/30 open** pipe seal, or DDL/Szirex **Pipe-Seal**_411-0100-030
or
DDL/Szirex **Pipe-Seal „onion”** pipe seal, or DDL/Szirex **Pipe-Seal**_412-0100-000

Custom solutions:

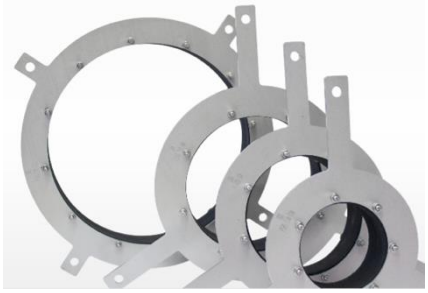
Multiple-hole versions

Product announcement is made based on individual plans and prior agreement. We can realize almost any idea based on a precisely prepared construction plan.
Some examples in pictures:

Pipe-Seal Senso – Especially soft sealing ring

for thin-walled plastic pipes, corrugated pipes, ventilation pipes

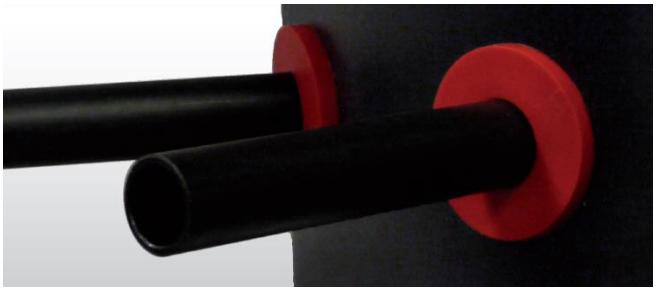
Pipe-Seal BG - For biogas plants:



Pipe Seal Hybrid

Thin-walled plastic pipes
Plastic-covered pipes (district heating)

PRODUCT INTRODUCTION



DDL BEF Snap-In

For piping into a tank
Up to 1 bar pressure (10 m high water column pressure)

- **Fast and simple installation:**
- **No welding**
- **No additional tightening elements**
- **No glueing**
- **Tight against pressing water up to 10 mWS (1 bar)**
- **Possible pipe alignment up to 30°**
- **Very good cohesive property**
- **Low level of hardness – high elasticity**

Item name	CP/OD	CD/ID
BEF 20 – 40	20 mm	40 mm
BEF 25 – 40	25 mm	40 mm
BEF 32 – 50	32 mm	50 mm
BEF 40 – 60	40 mm	60 mm
BEF 50 – 70	50 mm	70 mm
BEF 63 – 90	63 mm	90 mm

quantity unit: 10 pieces

CP: carrier pipe / OD: outside diameter
CD: container drilling / ID: inside diameter

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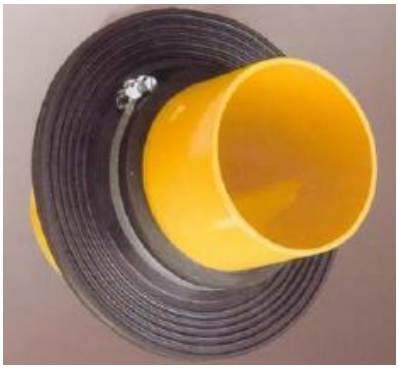
PRODUCT INTRODUCTION



DDL KG-MK
Wall Collar

From EPDM rubber, up to 5bar pressure (50m water column height)

- **Due to its internal ribbed design, it provides an extremely good closure**
- **The collar design provides a strong hold**
- **The outer ribs ensure excellent grip even in extreme installation conditions**
- **The rounded surfaces of the wall collar help to fill the concrete perfectly**
- **The notches on the harness ensure a perfect fit of the pipe clamp, and a displacement-free fastening.**
- **Its flexibility allows it to be used for all types of pipes**
- **The size markings can be found on both sides of the wall collars**

Installation criteria:

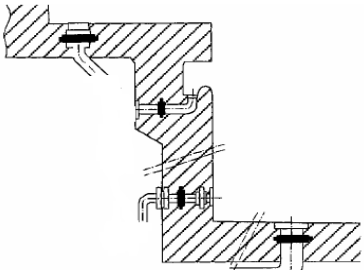
The pipe must be clean, smooth and free of grooves
The wall collar should be placed in the middle of the lead-through
Neutral soap can be used to aid in an easier fit
A hex wrench or screwdriver is required to secure the pipe clamps
Prior to pouring, check once agiain that the wall collars are correctly fitted
A 3 cm embedding of the wall collar is required for proper closing

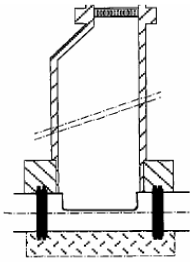
Tender / Order proposal:

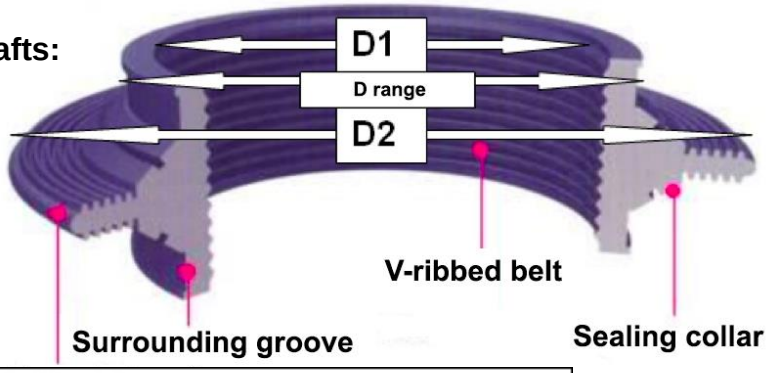
Product naming example, eg.: the nominal diameter of the utility pipe is 100mm, the outer diameter is 110 mm

DDL/SZIREXPRO **KG-007** 100/110 wallcollar

Installation examples for pools and shafts:







Wall Collar

DDL KG-MK from EPDM rubber, up to 5 bar pressure

Type	Nominal diameter of utility pipe (Ø mm)	Outer diameter of utility pipe (Ø mm)	D1 Wall collar inner Ø (mm)	D2 Rubber collar outer Ø (mm)	d range rubber ring inner-outer Ø (mm)	Stainless steel pipe clamp (mm)
KG-001	25	**32**	29	127	29 - 36	32 - 50
KG-002	32	**40**	38	136	38 - 44	40 - 60
KG-003	40	**50**	48	146	48 - 55	50 - 70
KG-004	50	**63**	60	158	60 - 69	60 - 80
KG-005	65	**75**	71	169	71 - 82	70 - 90
KG-006	80	**90**	84	182	84 - 97	90 - 110
KG-007	100	**110**	105	203	105 - 121	110 - 130
KG-008	125	**125**	120	218	120 - 140	130 - 150
KG-009	125	**140**	120	218	134 - 154	150 - 170
KG-010	150	**160**	154	252	154 - 179	160 - 180
KG-011	175	**180**	175	273	175 - 199	190 - 210
KG-012	175	**200**	195	293	195 - 224	210 - 230
KG-013	200	**225**	215	315	215 - 249	230 - 250
KG-014	225	**250**	245	343	245 - 279	260 - 280
KG-015	250	**280**	275	373	275 - 314	290 - 310
KG-016	300	**315**	310	408	310 - 354	320 - 340
KG-017	350	**355**	352	435	352 - 399	360 - 380
KG-018 **or** KG-040	400	**400**	395	480	395 - 449	2x 190 - 210 **or** 1 x 190 - 210 1 x 240 - 260

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PRODUCT INTRODUCTION

DDL - ASM

(AbSchlussManschette)

Rubber Bellows

Rubber bellow seals made of EPDM rubber with stainless steel straps

DDL GSD rummer bellow seal system consists of 3 main product types:

ASM-G „geslossen" closed	2-3mm thickness for pipe installations
ASM-O „offen" open	2-3mm thickness for reparations, subsequent installations
ASM-DF „dehnfalte" wrinkled (S shape)	2-3mm thickness, of EPDM for new installations under heavy use
MR	Medienrohr utility pipe
SR	Schutzrohr casing pipe
ASM-ID(MR)	Manschetten-Innendurchmesser „Medienrohr-Öffnun" Rubber bellow inner Ø „utility pipe opening"
ASM-ID(SR)	Manschetten-Innendurchmesser „Medienrohr-Öffnun" Rubber bellow inner Ø „casing pipe opening"

ASM-O "offen" open

ASM-G "geslossen" closed

ASM-DF "dehnfalte" wrinkled (S shape)

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Tender / Order proposal:

Product naming example for new installation, for general use, when eg.: the utility pipe's Ø is 80mm and the casing pipe's is 125mm.
DDL/Szirex **ASM-G**/80x125 rubber bellow 2 pieces

Product Range

ASM-G "geslossen" closed

ASM-O "offen" open

ASM-DF "dehnfalte" wrinkled (S shape)

DN MR - SR	ASM-ID(MR) mm	ASM-ID(SR) mm
25 x 40	32	53
25 x 50	32	66
25 x 65	32	84
25 x 80	32	98
25 x 100	32	126
25 x 125	32	154
25 x 150	32	185
25 x 200	32	241
40 x 50	46	66
40 x 65	46	84
40 x 80	46	98
40 x 100	46	126

DN MR - SR	ASM-ID(MR) mm	ASM-ID(SR) mm
40 x 125	46	154
40 x 150	46	185
40 x 200	46	241
50 x 65	57	84
50 x 80	57	98
50 x 100	57	126
50 x 125	57	154
50 x 150	57	185
50 x 200	57	241
50 x 250	57	300
50 x 300	57	356
50 x 350	57	391
50 x 400	57	447
65 x 80	72	98
65 x 100	72	126
65 x 125	72	154
65 x 150	72	185
65 x 200	72	241
65 x 250	72	300
65 x 300	72	356
65 x 350	72	391
65 x 400	72	447
80 x 100	84	126
80 x 125	84	154
80 x 150	84	185
80 x 200	84	241
80 x 250	84	300
80 x 300	84	356
80 x 350	84	391
80 x 400	84	447
80 x 450	84	503
80 x 500	84	559
80 x 550	84	615
80 x 600	84	671
80 x 650	84	726
100 x 125	109	154
100 x 150	109	185
100 x 200	109	241
100 x 250	109	300
100 x 300	109	356
100 x 350	109	391
100 x 400	109	447
100 x 450	109	503
100 x 500	109	559
100 x 550	109	615
100 x 600	109	671
100 x 650	109	726

DN MR - SR	ASM-ID(MR) mm	ASM-ID(SR) mm
125 x 150	133	185
125 x 200	133	241
125 x 250	133	300
125 x 300	133	356
125 x 350	133	391
125 x 400	133	447
125 x 450	133	503
125 x 500	133	559
125 x 550	133	615
125 x 600	133	671
125 x 650	133	726
150 x 200	160	241
150 x 250	160	300
150 x 300	160	356
150 x 350	160	391
150 x 400	160	447
150 x 450	160	503
150 x 500	160	559
150 x 550	160	615
150 x 600	160	671
150 x 650	160	726
150 x 700	160	782
200 x 250	208	300
200 x 300	208	356
200 x 350	208	391
200 x 400	208	447
200 x 450	208	503
200 x 500	208	559
200 x 550	208	615
200 x 600	208	671
200 x 650	208	726
200 x 700	208	782
200 x 750	208	838
200 x 800	208	894
250 x 300	259	356
250 x 350	259	391
250 x 400	259	447
250 x 450	259	503
250 x 500	259	559
250 x 550	259	615
250 x 600	259	671
250 x 650	259	726
250 x 700	259	782
250 x 750	259	838
250 x 800	259	894
250 x 850	259	950
250 x 900	259	1005
300 x 350	308	391
300 x 400	308	447
300 x 450	308	503
300 x 500	308	559
300 x 550	308	615
300 x 600	308	671
300 x 650	308	726
300 x 700	308	782
300 x 750	308	838
300 x 800	308	894
300 x 850	308	950
300 x 900	308	1005

DN MR - SR	ASM-ID(MR) mm	ASM-ID(SR) mm
300 x 950	308	1062
300 x 1000	308	1118
350 x 450	338	503
350 x 500	338	559
350 x 550	338	615
350 x 600	338	671
350 x 650	338	726
350 x 700	338	782
350 x 750	338	838
350 x 800	338	894
350 x 850	338	950
350 x 900	338	1005
350 x 950	338	1062
350 x 1000	338	1118
400 x 450	386	503
400 x 500	386	559
400 x 550	386	615
400 x 600	386	671
400 x 650	386	726
400 x 700	386	782
400 x 750	386	838
400 x 800	386	894
400 x 850	386	950
400 x 900	386	1005
400 x 950	386	1062
400 x 1000	386	1118
450 x 500	434	559
450 x 550	434	615
450 x 600	434	671
450 x 650	434	726
450 x 700	434	782
450 x 750	434	838
450 x 800	434	894
450 x 850	434	950
450 x 900	434	1005
450 x 950	434	1062
450 x 1000	434	1118
500 x 550	483	615
500 x 600	483	671
500 x 650	483	726
500 x 700	483	782
500 x 750	483	838
500 x 800	483	894
500 x 850	483	950
500 x 900	483	1005
500 x 950	483	1062
500 x 1000	483	1118
550 x 600	531	671
550 x 650	531	726
550 x 700	531	782
550 x 750	531	838
550 x 800	531	894
550 x 850	531	950
550 x 900	531	1005
550 x 950	531	1062
550 x 1000	531	1118
550 x 1050	531	1174
550 x 1100	531	1230

SZIREXPRO

DDL Durchführungstechnik Dichtsysteme Lutz

PRODUCT INTRODUCTION

DDL PQZ

(Polymer- Quartz sand-Cement)

Asbestos-free watertight polymer cement wall sleeve

We recommend its installation to lead utility lines through walls, ceilings, structures, even for use in environments with a need of drinking water purity.

DDL PQZ Asbestos-free watertight polymer cement wall sleeve

Advantages:

Its precise manufacturing dimensions and smooth inner surface ensure optimal sealing of the sealing rings
Grooves running around the outer wall ensure perfect grip
Provides perfect waterproofing
The production dimensions were determined according to the needs of the water suppliers

Areas of application:

We recommend its installation to lead utility lines through walls, ceilings, structures, even for use in environments with a need of drinking water purity.

Technical data, design guide:

Basic material: polymer-quartz sand-cement polymer concrete
Inner finish: made of polyester resin by smoothing

Manufactured dimensions:

Diameter:	Ø 100 / 125 / 150 / 200 / 250 / 300;
Lenght:	100 / 200 / 250 / 300 / 350 /400 / 500 / 600 / 1000 mm (we can also deliver in custom lenght sizes up to 1m)

Product range with dimensions required for design can be found in the attached table

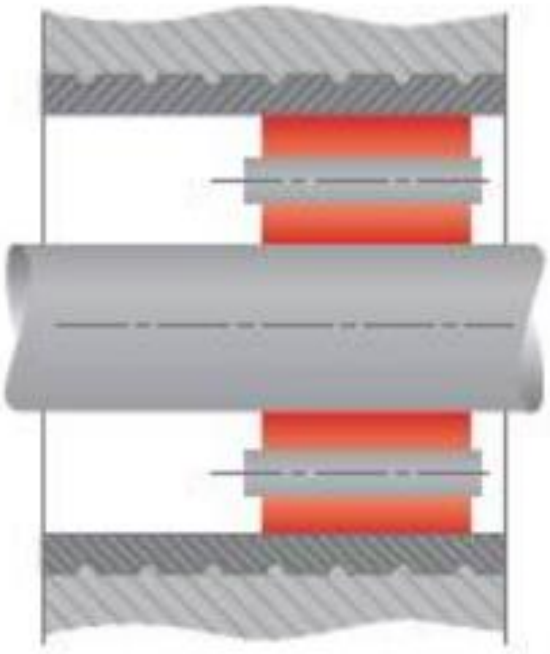
Tender / order proposal:

eg: 100mm inner diameter wall sleeve into 40 cm concrete wall

DDL/Szirex **PQZ Ø100/400** mm polymer cement wall sleeve

It is an important rule of thumb that the insertion into the formwork must be secured without displacement in accordance with the design specifications!
It is recommended to emphasize this in the plan proposals

Installation example:



SZIREXPRO

DDL®
Durchführungstechnik
Dichtsysteme
Lutz

DDL PQZ

Polymer Cement Wall Sleeve
Polymer-Quartz sand-Cement (PQZ), inner surface with polyester resin smoothing
The products marked in gray are not standard products, we send an individual offer if required

Utility pipe
(outer diameter, mm)

outer Ø	14 - 45	20 - 63	45 - 90	58 - 115	80 - 165	106 - 178	172 - 238

Wall Sleeve
(mm)

Inner Ø	80 +/- 1	100 +/- 1	125 +/- 1	150 +/- 1	200 +/- 2	250 +/- 2	300 +/- 2
Outer ø	110 +/- 2	130 +/- 2	155 +/- 2	180 +/- 2	240 +/- 2	290 +/- 2	340 +/- 2
Grooves							
Distance	19 +/- 1	19 +/- 1	19 +/- 1	19 +/- 1	19 +/- 1	19 +/- 1	19 +/- 1
Depth	3	3	3	3	4	4	4
Radius	2,5	2,5	2,5	2,5	4		4
Wall sleeve pipe lenght (mm)	PQZ 80	PQZ 100	PQZ 125	PQZ 150	PQZ 200	PQZ 250	PQZ 300
	Item number						
100	061-0100-080	061-0100-100	061-0100-125	061-0100-150	061-0100-200	061-0100-250	061-0100-300
200	061-0200-080	061-0200-100	061-0200-125	061-0200-150	061-0200-200	061-0200-250	061-0200-300
250	061-0250-080	061-0250-100	061-0250-125	061-0250-150	061-0250-200	061-0250-250	061-0250-300
300	061-0300-080	061-0300-100	061-0300-125	061-0300-150	061-0300-200	061-0300-250	061-0300-300
350	061-0350-080	061-0350-100	061-0350-125	061-0350-150	061-0350-200	061-0350-250	061-0350-300
400	061-0400-080	061-0400-100	061-0400-125	061-0400-150	061-0400-200	061-0400-250	061-0400-300
500	061-0500-080	061-0500-100	061-0500-125	061-0500-150	061-0500-200	061-0500-250	061-0500-300
600				061-0600-150	061-0600-200	061-0600-250	
1000		061-1000-100	061-1000-125	061-1000-150			

For alternative sizes please contact us at info@szirex.hu

SZIREXPRO

DDL®
Durchführungstechnik
Dichtsysteme
Lutz

PRODUCT INTRODUCTION

DDL
WALL SLEEVES

Steel and stainless steel wall sleeves are generally built into walls, floor plates or ceilings during the process of shuttering. They are designed to take in seal inserts for pipe or cable penetrations.
Stainless steel wall sleeves are mainly used in the construction of drinking water facilities, chemical facilities and sewage plants due to their high resistance to corrosion.
If corrosion resistance is not a main priority, it is more economical to use galvanized or plain black wall sleeves.
Steel wall sleeves are often provided with a seamlessly welded flange ring to secure them against water penetration caused by capillary action.

steel wall sleeves
collar wall sleeves
pipe inns
tube sleeves
wall brackets

We can produce individually designed steel structures based on the required needs after prior consultation

Tender / order proposal:

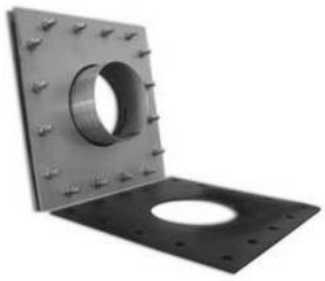
The wall sleeves can be produced in:

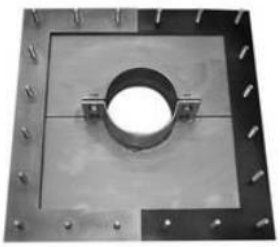
- black
- galvanized
- stainless

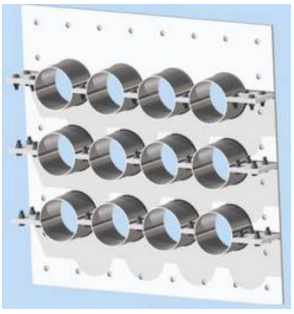
designs, in custom sizes

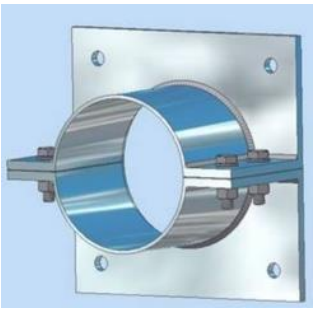
The prices of these types of products are formed individually based on the plans.

Please send such requests by e-mail: info@szirex.hu





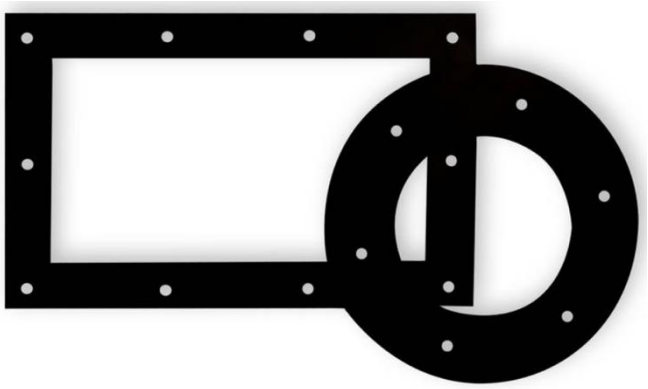




SZIREXPRO

DDL® Durchführungstechnik Dichtsysteme Lutz

PRODUCT INTRODUCTION



DDL
Rubber Flat Seals

EPDM / NBR / NR / SILICON

- **Round versions up to 1200 mm outside diameter**
- **Square / rectangular versions up to 1200 mm max. edge length**
- **In 3 / 10 / 30 mm tickness (standard)**
- **Special sizes and thicknesses on request**
- **According to drawing / sketch**

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Szirexpro Ltd. is the official representative of DDL GmbH (HU, RO, SK, UKR, HR, SRB, SLO)

PRODUCT INTRODUCTION

OM-S

M-M&L

M-XL

DDL
PLASTIC SPACERS

A termékek HD (nagy sűrűségű) polietilénből készülnek, s 3 fő terméktípusból áll:

1. **OM-S** for utility pipes between Ø 15 – 80 mm közti haszoncsövekhez, 15 and 25 mm web heights, mounted per meter

2. **M-M&L** for utility pipes between Ø 50 – 550 mm, 25, 41 and 60 mm web heights, mounted every 2 meters

3. **M-XL** for utility pipes between Ø 400 – 1400 mm, 25, 41, 60, 75 and 90 mm web heights, mounted every 1-2 meters (see in table)

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DDL Ranger kombi 3000

SZIREXPRO

DDL® Durchführungstechnik Dichtsysteme Lutz

TECHNICAL SPECIFICATION

Utility pipe size	Utility pipe outer diameter		Web height	Number of webs	Required number of spacers	Mounting density	
	min	max				víz	gáz
mm	mm	mm	mm	PCs	PCs	m	m
OM-S 320 mm long, with 16 webs + 4 cable ties							
15 (1/2")	15	20	15 / 25	3	0,5	every 1 meter	
20 (3/4")	20	33		3 - 5			
25 (1")	32	39		5 - 6			
32 (1" 1/4)	40	46		6 - 7			
40 (1" 1/2)	48	56		7 - 9			
50 (2")	60	66		9-10	1		
60 (2" 1/2)	70	77		11-12			
65 (2" 1/2)	75	85		12-13			
80 (3")	88	104		14-16			
M-M&L 450 mm long, with 10 webs + duct tape							
50/80/100/125	54	145	25 / 41 / 60	3 -10	1	every 2 meters	
150/200	155	210		11-15	1,5		
200/250	211	290		16-20	2		
300/350	300	340		21-25	2,5		
350/400	341	435		26-30	3		
450/500	445	480		31-35	3,5		
450/500	481	570		36-40	4		
M-XL M-XL/1: 324 mm long, with 3 webs and rounded slider M-XL/2: 408 mm long, with 4 webs and rounded slider With wedge-shaped "S" clamping-connecting elements					M-XL/1 / M-XL/2 / "S"		
400 (16")	396	415	25 / 41 / 60 / 75 / 90	12	3 / 3	every 2 meters	
450 (18")	447	473		13	3 / 1 / 4		
500 (20")	501	526		15	1 / 3 / 4		
550 (22")	552	582		16	4 / 1 / 5		
600 (24")	606	636		18	2 / 3 / 5		
650 (26")	659	691		20	/ 5 / 5		
700 (28")	684	722		20	4 / 2 / 6		
750 (30")	783	776		22	2 / 4 / 6		
800 (32")	791	829		24	/ 6 / 6		
850 (34")	843	887		25	3 / 4 / 7		
900 (36")	896	941		27	1 / 6 / 7		
950 (38")	948	999		28	4 / 4 / 8		
1000 (40")	1001	1052		30	2 / 6 / 8		
1050 (42")	1053	1110		31	5 / 4 / 9		
1100 (44")	1106	1164		33	3 / 6 / 9	1,5 m	2 m
1150 (46")	1133	1190		34	2 / 7 / 9		
1200 (48")	1211	1275		36	4 / 6 / 10		
1250 (50")	1238	1302		37	3 / 7 / 10	1 m	1,5 m
1300 (52")	1292	1355		39	1 / 9 / 10		
1350 (54")	1317	1387		39	5 / 6 / 11		
1400 (56")	1397	1467		42	2 / 9 / 11		

DDL Ranger Kombi 3000
Reusable tube wheel
From 400 Ø, to 100mm spacer web
For pipes with max 24mm wall thickness, up to 30 kN load

Suggested use: Mounted in pairs at "5-7 o'clock"
Or 4 PCs at "3-6-9-12 o'clock"

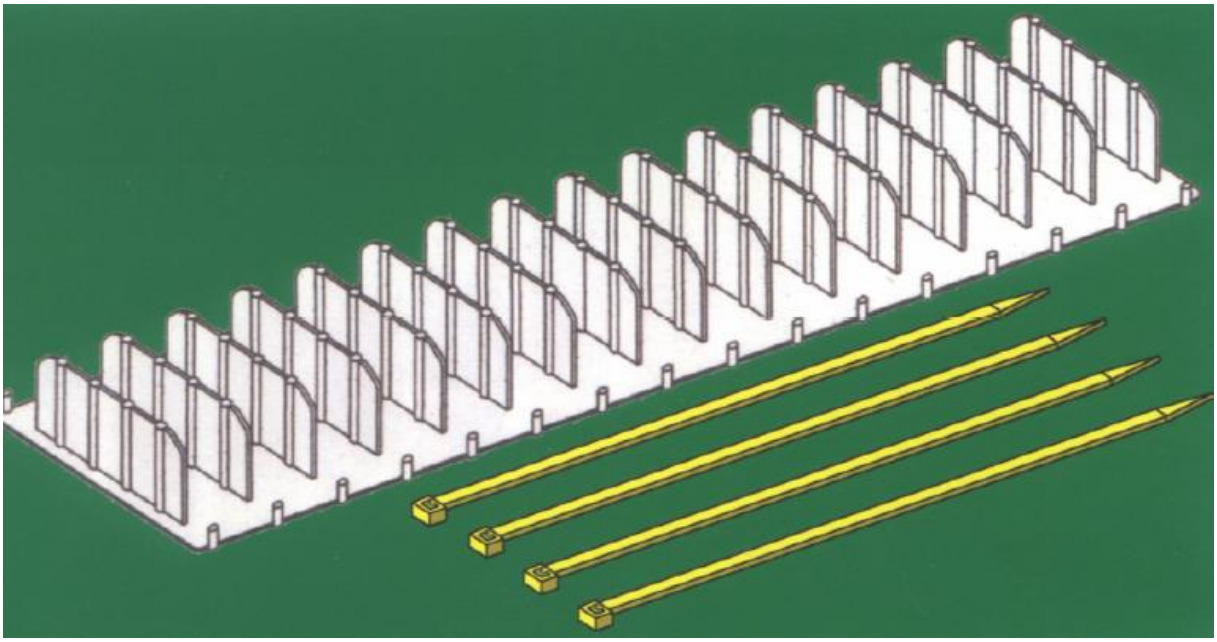
Tender / order proposal:
Product naming example, when eg. the utility pipe is 220 mm Ø and gets conducted through a 10 m long protective pipe

DDL/Szirexpro **M-M&L**220/60 spacer 6 pieces (calculation of quantity: lenght / 2m + 1 piece)

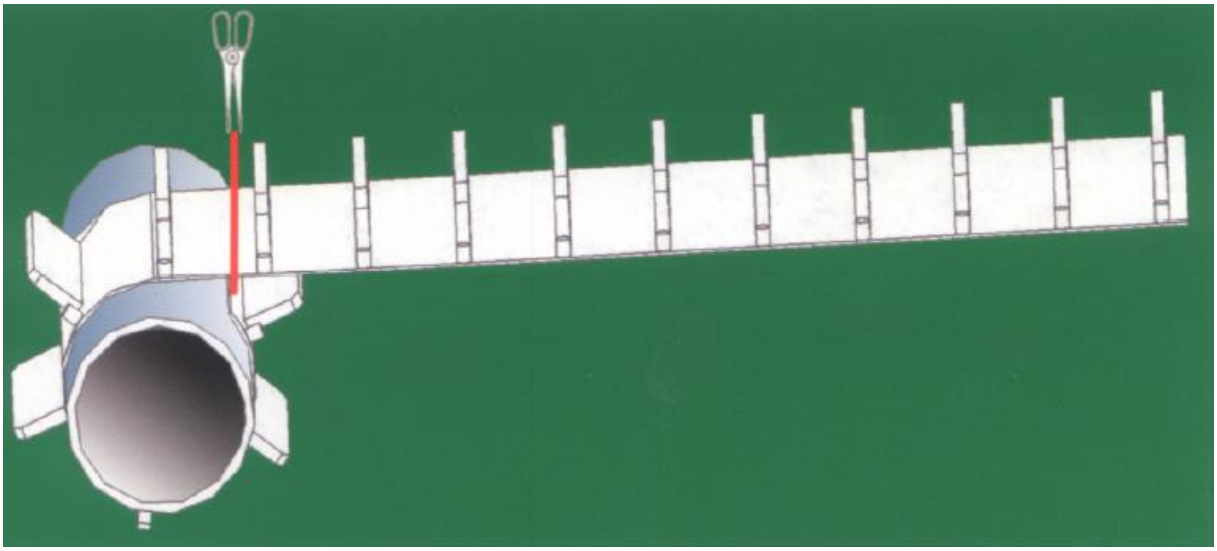
Installation instructions:

OM-S

For utility pipes between Ø 15 – 80
One item is 320 mm long with 16 pieces of 15 or 25 mm high webs, and 4 pieces of cable ties

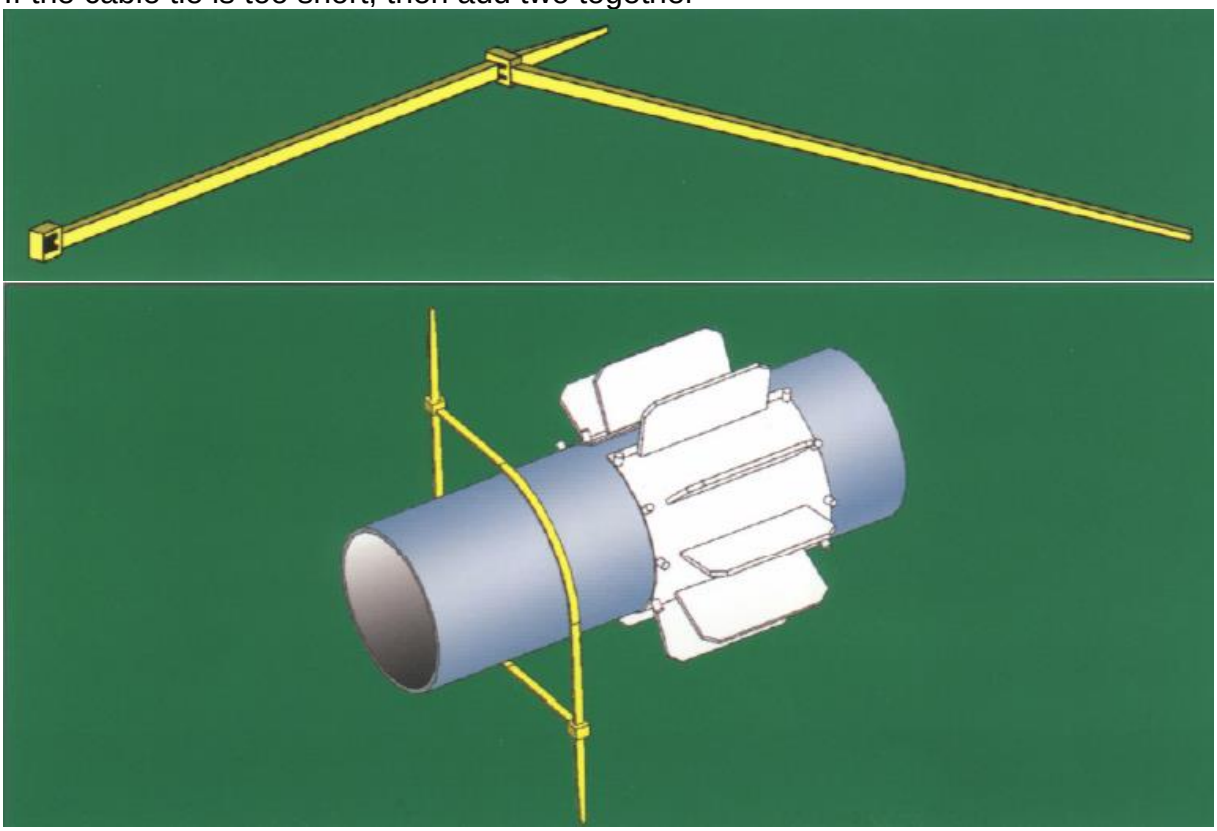


Place it around the pipe and cut it approx. 5 mm less than the perimeter of the pipe

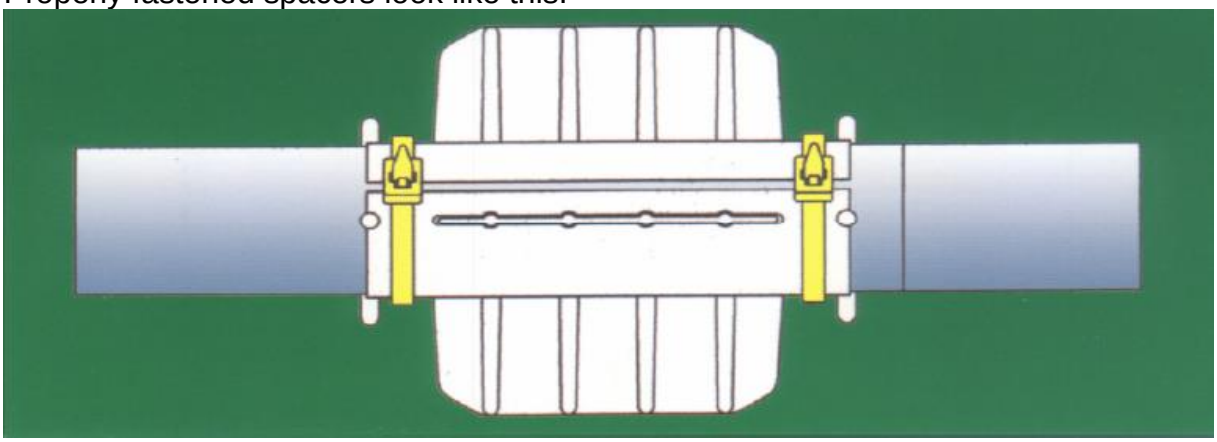


Using the cable ties, attach the spacers to the pipes every 1 m

If the cable tie is too short, then add two together



Properly fastened spacers look like this:

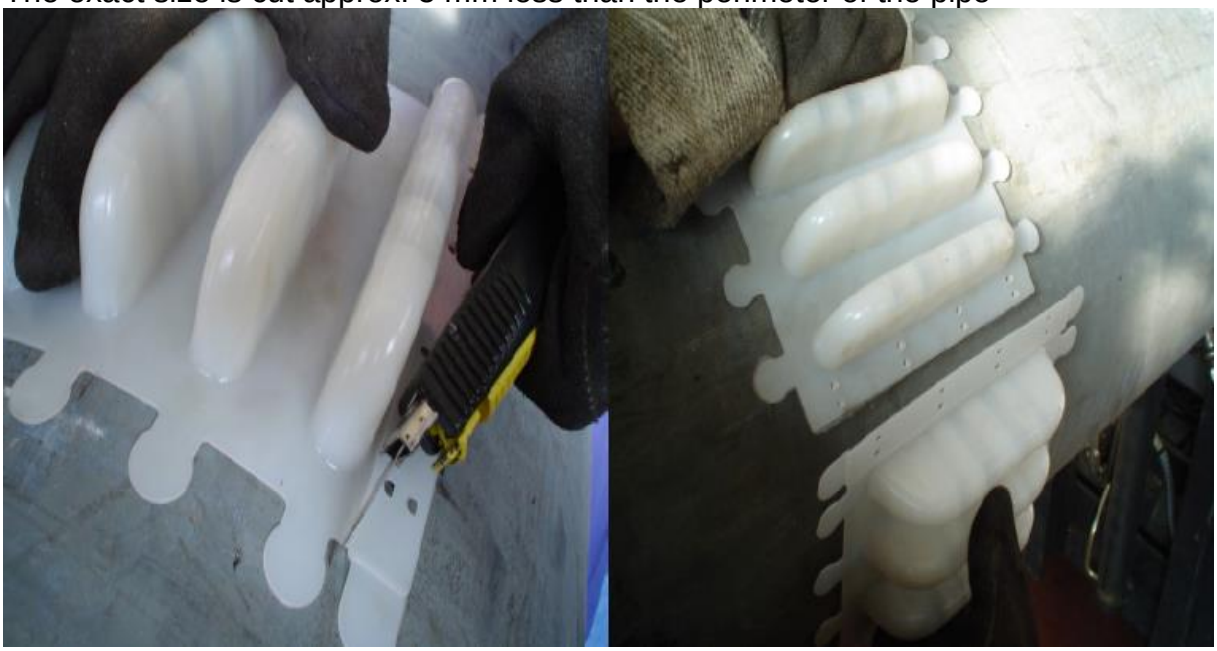


M-M&L

One item is 450 mm long with 10 pieces of 25, 41, or 60 mm high webs, and 1 duct tape

According to the perimeter of the pipe, link together the amount of spacers needed

The exact size is cut approx. 5 mm less than the perimeter of the pipe



The edges of the spacer are attached to the pipe with duct tape

The properly done fixing is shown in the picture below
Spacers must be placed on the pipe at least every 2 m

M-XL

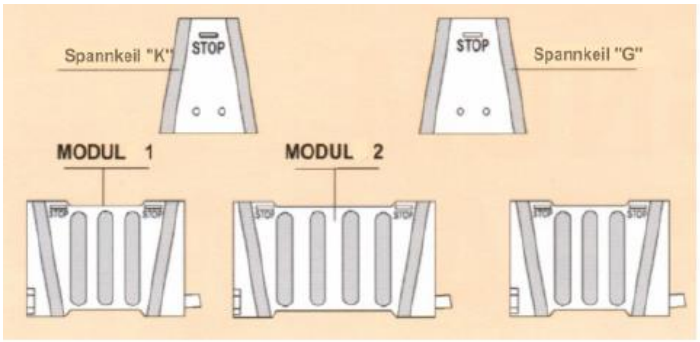
For utility pipes between Ø 400 – 1400 mm,

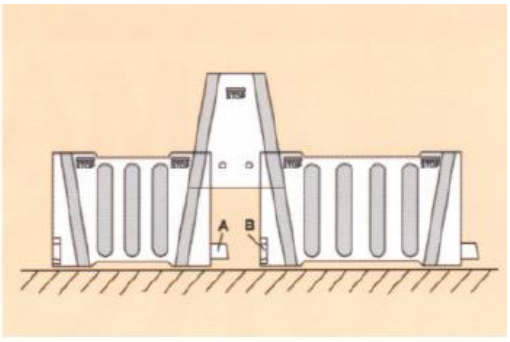
Shipped in two unit sizes:

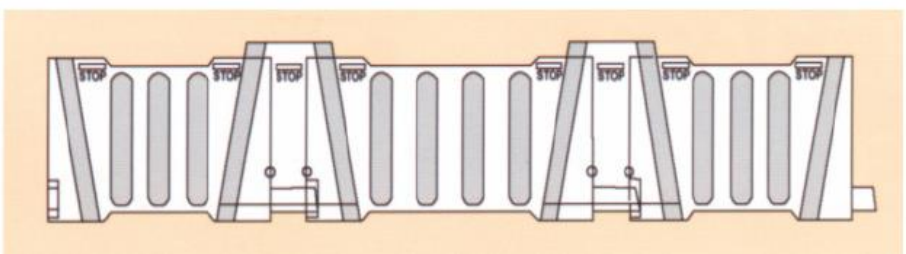
1. **M-XL/1** – 324 mm long, 3 webs
2. **M-XL/2** – 408 mm long, 4 websl

The spacing webs are 25, 41, 60, 75 or 90 mm high.

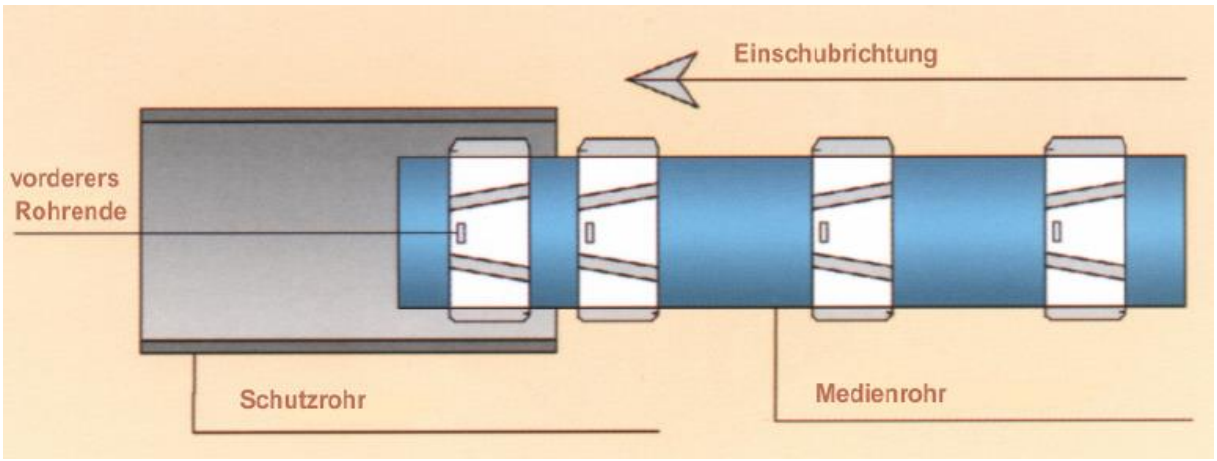
The connection of the unit elements is ensured by the **S-element** (Spannelement) as follows:







The direction of installation of the unit elements depends on the direction of pipe insertion:



The assembly and then tensioning of the unit elements are shown in the following pictures: (it is recommended to use the aid shown in the picture)

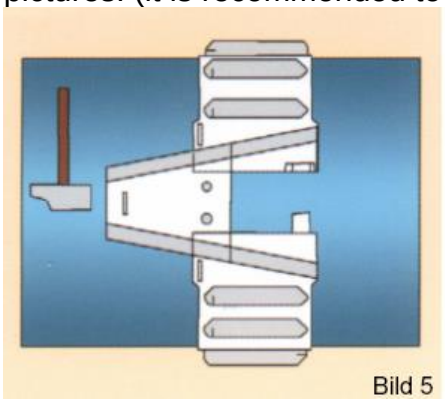


Bild 5

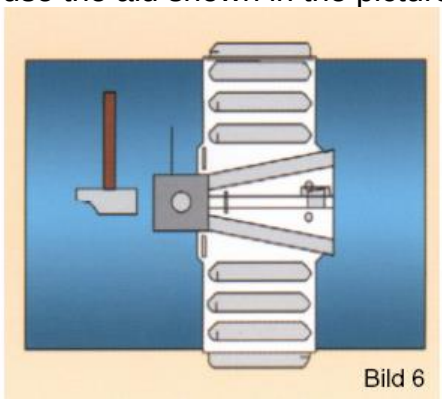


Bild 6

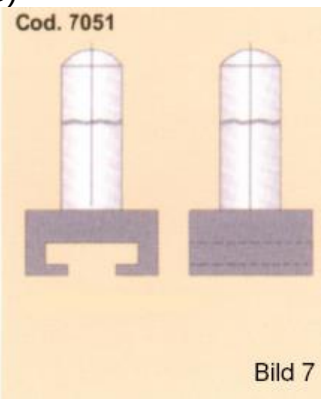
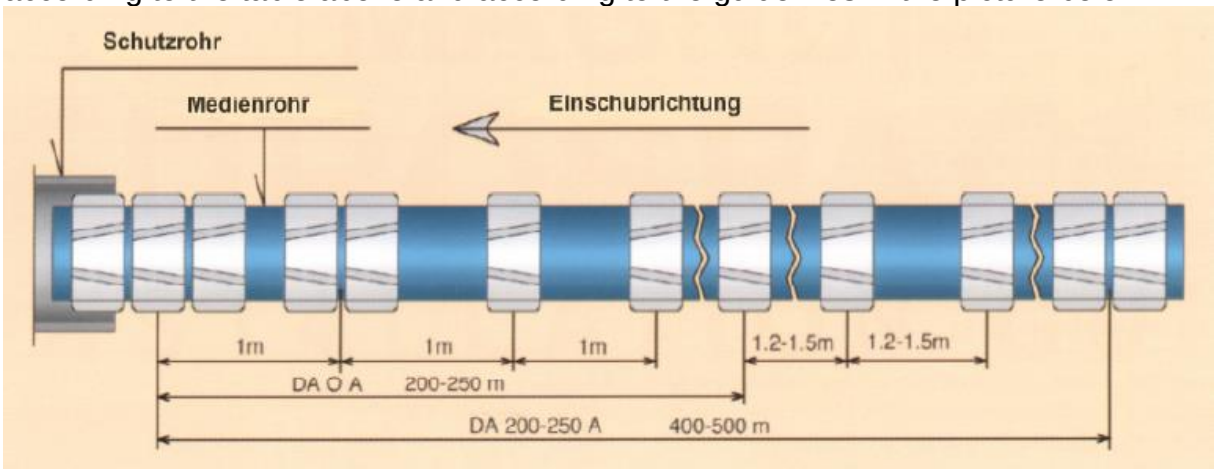
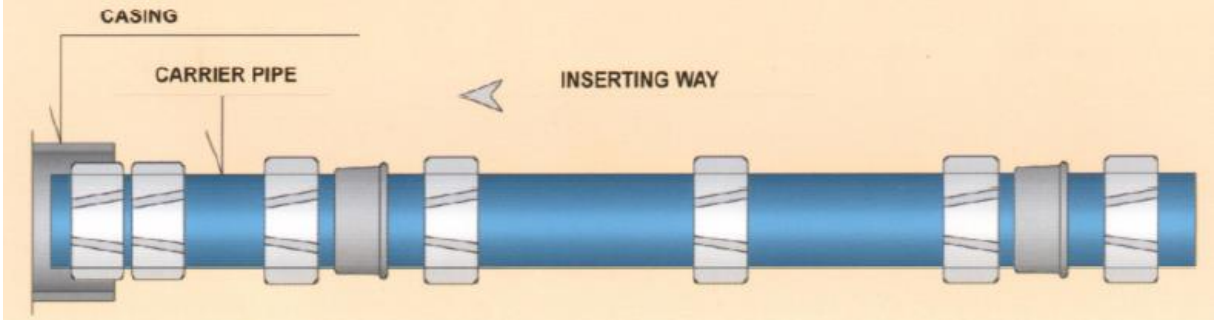


Bild 7

It is recommended to place the spacers mounted every 1-2 meters (see table), according to the table above and according to the guidelines in the picture below:



For pipe joints, it is recommended to place spacers on both sides:



SZIREXPRO

DDL® Durchführungstechnik Dichtsysteme Lutz

PRODUCT INTRODUCTION

DDL Sani-Pipe Repair Set

Provides sealing of pipe penetrations up to 2 bar pressure (20m water column pressure)

The MPA recommends that the installation depth should be limited to a maximum of 5m of water column, taking safety factors into account

ORDER AND INFORMATION:
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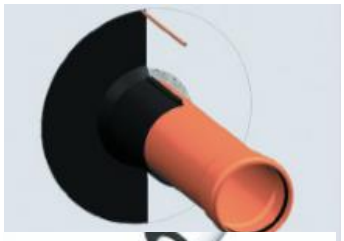
(HU, RO, SK, UKR, HR, SRB, SLO)

DDL Sani-Pipe előnyei

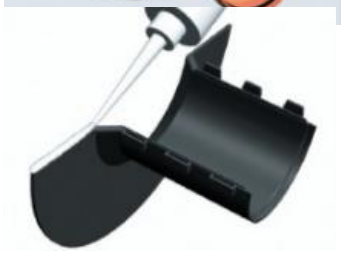
- It results in a permanent and proper pipe seal and provides protection for modular seals
- The glue provides excellent adhesion to concrete
- The flexible adhesive bond absorbs and transmits the movements and stresses of the utility pipe
- The particularly excellent adhesive properties of the glue ensure an effective seal against water, thus providing maximum protection against water
- With its simple application, we can save construction time
- Easy to install without tools

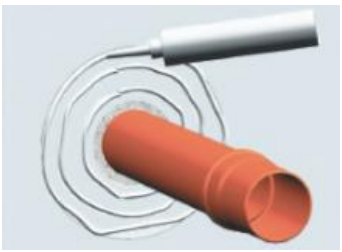
Installation instructions

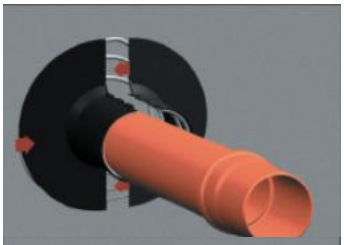


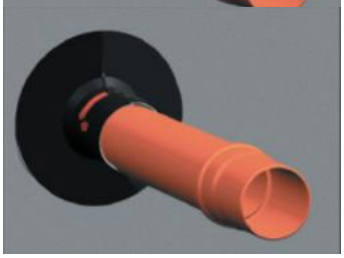
Draw the outline of the Sani-Pipe around the wall, then apply the glue as shown:

1. on the switching edges of the Sani-Pipe
2. into the inner pipe clamp of the Sani-Pipe
3. circularly on the outline drawn on the wall and between the pipe









Put the two halves of the Sani-Pipe together, press them against the pipe and the wall, then turn it a little so that the glue spreads well between the gaps

Specifications:

Sani-Pipe Repair Set pipe sealing for water insulation		
Type	**Utility pipe outer Ø mm**	**Sani-Pipe nominal (inner) Ø mm**
DN 8/10/15	8 - 25	31
DN 20/25	26 - 44	47
DN 32/40/50	45 - 63	67
DN 65/79/80	64 - 86	89
DN 100	87 - 110	113
DN 125	111 - 125	128
DN 150	135 - 161	163

Tender / order proposal:

eg: DN100mm inner diameter utility pipe's outer diameter is 108cm
DDL/Szirex **Sani-Pipe DN100**

The Sani-Pipe's and Glue's Test Document and Test Report can be downloaded from our website

SZIREXPRO

DDL® Durchführungstechnik Dichtsysteme Lutz

PRODUCT INTRODUCTION

DDL GSD

(Gummi-Stahl-Dichtungen)

Rubber sealing rings with metal inserts

For steel / stainless steel / GFK / PVC / PE / PP flanged pipe joints, provide sealing against water, air, alkalis, acids and carbohydrates at relatively low temperature conditions

- The vulcanized steel ring provides a perfect surface fit
- Its ability to self-stabilize and self-center allows easy installation
- Can also be used in drinking water systems (GSD-KTW)
- Good overall chemical resistance

ORDER AND INFORMATION:
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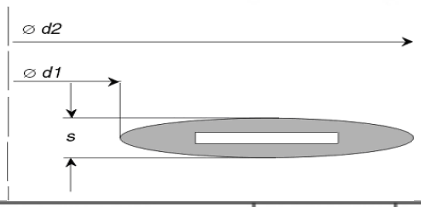
Szirexpro Ltd. is the official representative of DDL GmbH
(HU, RO, SK, UKR, HR, SRB, SLO)

SZIREXPRO

DDL®
Durchführungstechnik
Dichtsysteme
Lutz

DDL GSD product types:

1. **GSD NBR-GW** for general use, resistant to crude oil, grease, fuels
2. **GSD EPDM-KTW** in environments clean as drinking water
3. **EPDM-KTW/VD** variable thickness metal insert rubber seal can be used for both drinking water and wastewater

RUBBER SEAL WITH METAL INSTERT For steel / stainless steel / GRP / PVC / PE / PP flanged pipe joints		EPDM-KTW for drinking water	NBR-GW for gas and water	VARIABLE THICKNESS METAL INSERT RUBBER SEAL EPDM-KTW/VD drinking water, sewage, sewage treatment		
Utility pipe Ø, Pressure (bar)	d1 x d2 x s	Item number	Item number	Utility pipe Ø, Pressure (bar)	Item number	Thickness min. - max.
DN 15; PN 10 - 40	22 x 51 x 4	075-0050-020	075-0010-001			
DN 20; PN 10 - 40	27 x 61 x 4	075-0050-022	075-0010-003			
DN 25; PN 10 - 40	34 x 71 x 4	075-0050-025	075-0010-007			
DN 32; PN 10 - 40	43 x 82 x 4	075-0050-027	075-0010-009			
DN 40; PN 10 - 40	49 x 92 x 4	075-0050-030	075-0010-012			
DN 50; PN 6	61 x 96 x 4	075-0050-005	075-0010-004			
DN 50; PN 10-40	61 x 107 x 4	075-0050-001	075-0010-015			
DN 65; PN 6	77 x 116 x 4	075-0050-006	075-0010-006			
DN 65; PN 10 - 40	77 x 127 x 4	075-0050-002	075-0010-018			
DN 80; PN 10 - 40	89 x 142 x 4	075-0050-008	075-0010-021	DN 80; PN 10 - 40	075-0011-499	14mm / 30mm
DN 100; PN 6	115 x 152 x 5	075-0050-016	075-0010-024			
DN 100; PN 10 - 16	115 x 162 x 5	075-0050-009	075-0010-026	DN 100; PN 10-16	075-0011-500	14mm / 33mm
DN 100; PN 25 - 40	115 x 168 x 5	075-0050-051	075-0010-028	DN 100; PN 25-40	075-0011-501	14mm / 33mm
DN 125; PN 6	141 x 182 x 5	075-0050-017	075-0010-029			
DN 125; PN 10 - 16	141 x 192 x 5	075-0050-010	075-0010-031	DN 125; PN 10-16	075-0011-546	14mm / 33mm
DN 125; PN 25 - 40	141 x 194 x 5	075-0050-044	075-0010-030			
DN 150; PN 6	169 x 207 x 5	075-0050-018	075-0010-033			
DN 150; PN 10 - 16	169 x 218 x 5	075-0050-011	075-0010-038	DN 150; PN 10-16	075-0011-502	14mm / 39mm
DN 150; PN 25- 40	169 x 224 x 5	075-0050-015	075-0010-042	DN 150; PN 25-40	075-0011-503	14mm / 39mm
DN 200; PN 6	220 x 262 x 5	075-0050-019	075-0010-034			
DN 200; PN 10 - 16	220 x 273 x 6	075-0050-012	075-0010-043	DN 200; PN 10-16	075-0011-504	15mm / 50mm
DN 200; PN 25	220 x 284 x 6	075-0050-047	075-0010-045			
DN 200; PN 40	220 x 290 x 6	075-0050-084	075-0010-150	DN 200; PN 40	075-0011-505	15mm / 50mm
DN 250; PN 6	273 x 317 x 6	075-0050-021	075-0010-036			
DN 250; PN 10	273 x 328 x 6	075-0050-036	075-0010-048	DN 250; PN 10	075-0011-506	16mm / 59mm
DN 250; PN 16	273 x 329 x 6	075-0050-013	075-0010-050			
DN 250; PN 25	273 x 340 x 6	075-0050-049	075-0010-052			
DN 250; PN 40	273 x 352 x 6	075-0050-085	075-0010-054	DN 250; PN 40	075-0011-507	16mm / 59mm
DN 300; PN 6	324 x 373 x 6	075-0050-023	075-0010-037			
DN 300; PN 10	324 x 378 x 6	075-0050-035	075-0010-057	DN 300; PN 10	075-0011-508	22mm / 68mm
DN 300; PN 16	324 x 384 x 6	075-0050-014	075-0010-060			
DN 300; PN 25	324 x 400 x 6	075-0050-053	075-0010-062			
DN 300; PN 40	324 x 417 x 6	075-0050-089	075-0010-068			
DN 350; PN 6	356 x 423 x 7	075-0050-024	075-0010-070			
DN 350; PN 10	356 x 438 x 7	075-0050-037	075-0010-072	DN 350; PN 10	075-0011-509	22mm / 68mm
DN 350; PN 16	356 x 444 x 7	075-0050-032	075-0010-074			
DN 350; PN 25	356 x 457 x 7	075-0050-057	075-0010-078			
DN 350; PN 40	356 x 474 x 7	075-0050-087	075-0010-080			
DN 400; PN 6	407 x 473 x 7	075-0050-026	075-0010-082			
DN 400; PN 10	407 x 489 x 7	075-0050-003	075-0010-083	DN 400; PN 10	075-0011-510	22mm / 74mm
DN 400; PN 16	407 x 495 x 7	075-0050-033	075-0010-087			
DN 400; PN 25	407 x 514 x 7	075-0050-058	075-0010-090			
DN 400; PN 40	407 x 546 x 7	075-0050-088	075-0010-092			
DN 450; PN 10	458 x 539 x 7	075-0050-093	075-0010-095			
DN 500; PN 6	508 x 578 x 7	075-0050-041	075-0010-097			
DN 500; PN 10	508 x 594 x 7	075-0050-040	075-0010-100			
DN 500; PN 16	508 x 617 x 7	075-0050-056	075-0010-102			
DN 500; PN 25	508 x 624 x 7	075-0050-059	075-0010-105			
DN 600; PN 6	610 x 679 x 5	075-0050-029	075-0010-104			
DN 600; PN 10	610 x 695 x 5	075-0050-045	075-0010-108			
DN 600; PN 16	610 x 734 x 5	075-0050-046	075-0010-110			
DN 600; PN 25	610 x 731 x 5	075-0050-079	075-0010-113			
DN 600; PN 40	610 x 747 x 5	075-0050-094	075-0010-116			
DN 700; PN 6	712 x 784 x 6	075-0050-031	075-0010-119			
DN 700; PN 10	712 x 810 x 6	075-0050-048	075-0010-120			
DN 700; PN 16	712 x 804 x 6	075-0050-034	075-0010-111			
DN 700; PN 25	712 x 833 x 6	075-0050-054	075-0010-114			
DN 800; PN 6	813 x 890 x 6	075-0050-141	075-0010-125			
DN 800; PN 10	813 x 917 x 6	075-0050-050	075-0010-127			
DN 800; PN 16	813 x 911 x 6	075-0050-038	075-0010-128			
DN 800; PN 25	813 x 942 x 6	075-0050-080	075-0010-130			
DN 900; PN 6	915 x 990 x 6	075-0010-142	075-0010-126			
DN 900; PN 10	915 x 1017 x 6	075-0050-052	075-0010-129			
DN 900; PN 16	915 x 1011 x 6	075-0050-039	075-0010-136			
DN 900; PN 25	915 x 1042 x 6	075-0050-081	075-0010-138			
DN 1000; PN 6	1016 x 1090 x6	075-0050-144	075-0010-131			
DN 1000; PN 10	1016 x 1124 x 6	075-0050-055	075-0010-135			
DN 1000; PN 16	1016 x 1128 x 6	075-0050-042	075-0010-035			
DN 1000; PN 25	1020 x 1154 x 6	075-0050-082	075-0010-133