

2023

Product Catalogue

taylor made solutions.



Welcome to Nova Siria world

NOVA SIRIA is a leader in the production of tailor-made couplings.

NOVA SIRIA production offers the most advanced technology and quality solutions currently available on the market: reliability, versatility and fast delivery in case of emergency have assured worldwide success of our products. NOVA SIRIA has over 90 years experience in manufacturing jointing, repairing and hot tapping systems for land and marine pipelines.

Our product range, from design to manufacture in accordance with the specifications of the Quality Management System ISO 9001, follows a processing cycle supported by advanced technologies which allow us to achieve our steadily high quality level.

NOVA SIRIA production is organized in different product types available in multiple versions, characterized by a wide tolerance range on the pipe diameters which allows connecting, repairing and hot tapping pipes with the same or different outside diameters and materials.



Nova siria: past, present and future



Turin, 1932: foundation of the company Società Idrotermica Razionale Industrie Affini S.I.R.I.A. spa. The company manufactures and installs heating and cooling systems and large thermal plants for buildings. In 1933 S.I.R.I.A. spa joins the Industrial Union of Turin and the Association of Metal and Mechanical Industries AMMA and is still a member today. After WWII the company activity widens, specializing in the water sector and in the 60s it is able to offer turnkey water systems. In 1970, thanks to the favourable geographical position of the production plant in Brusasco, at the crossroads of the provinces of Turin, Asti and Alessandria, the production development focuses on the main Northern Italian water utilities. In 1980 the Ferrero family purchases the Company, changes its name into NOVA SIRIA S.r.l. and moves back to Bibiana, at the mouth of the Pellice Valley. The Company enjoys a constant growth so that in 2006 two new plants are acquired in Roletto, a little town between Pinerolo and Turin. The new facilities include areas dedicated to the production and specific tests, with lifting equipment suitable for handling large-sized pieces and a special layout allowing the simultaneous management of emergency and standard productions. In addition to the manufacturing and storage facilities there are a showroom and a conference room with audiovisual equipment for technical and commercial courses and meetings.

During 2006, the Italian sales network is completely re-organised through activation of new Agencies, in particular in the South of Italy. The years from 2009 to 2016 are characterized by important investments meant to speed up the internationalization process, through the attendance to several exhibitions of the sector all over the world and the activation of new distributors in all continents.

In June 2015 Nova Siria became part of the Austrian group Hawle, one of the international leaders in quality and innovation of valves and pipe connection.



Nova Siria, objective sustainability

The guiding principle behind the company decisions of Nova Siria is sustainability. The company, in line with ESG principles, operates with total respect for the planet and its resources, to build a future which is sustainable for future generations. At the start of 2023, the company obtained ISO 14001 certification (Environmental Management System Certification), with the planned objective of creating, over the medium term, integrated quality, security and environmental management systems. The business model makes possible not just the maintenance of the business over the long term, but also expands the horizons, including the environment, social wellbeing and fair and long-sighted governance.

Environmental sustainability

Nova Siria operates in compliance with environmental criteria, implementing various different virtuous actions:

- creation of an integrated quality and environmental system (ISO 9001 and 14001, aiming at 360° sustainability of both the primary and support processes);
- use of renewable energy;
- adoption of circular economy solutions;
- reduction in environmental impact (use of “green” packaging, planning using FEM (Finite element method) calculations in order to optimise the use of steel);
- containing the consumption of water and the planet’s other resources;
- careful and considered waste disposal, with the majority destined for recovery;
- acquisition of a high percentage of recycled steel.

Social sustainability

Nova Siria interacts with the social fabric within which it operates by adopting a company development model which can have a positive impact for the various groups involved. The most important social areas it operates in are:

- work safety;
- worker rights;
- social equality and justice;
- wellbeing and inclusion of the people working for the company;
- enhancement of local resources;
- the company’s strong ties with the local areas.





CERTIFICATO

Nr. 50 100 16920

SI ATTESTA CHE / THIS IS TO CERTIFY THAT
IL SISTEMA DI GESTIONE AMBIENTALE DI
THE ENVIRONMENTAL MANAGEMENT SYSTEM OF



NOVA SIRIA S.r.l.

SEDE LEGALE E OPERATIVA:
REGISTERED OFFICE AND OPERATIONAL SITE:
VIA MARCONI 4/6 IT - 10060 ROLETTO (TO)

SEDI OPERATIVE: **VEDI ALLEGATO 1** / OPERATIONAL SITES: **SEE ANNEX 1**

È CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

UNI EN ISO 14001:2015

QUESTO CERTIFICATO È VALIDO PER IL SEGUENTE CAMPO DI APPLICAZIONE
THIS CERTIFICATE IS VALID FOR THE FOLLOWING SCOPE OF APPLICATION

Progettazione e fabbricazione di sistemi di giunzione, riparazione e derivazione per condotte terrestri e marine con relativi rivestimenti plastici anticorrosione, mediante i seguenti processi: lavorazioni meccaniche, saldatura, rifinitura, sabbiatura e successivi rivestimenti a caldo di guaine elastomeriche mediante taglio, incollaggio, finitura, assemblaggio ed applicazione finale su componenti metallici (IAF 17, 14)

Design and manufacture of jointing, repair and derivation systems for land and sea pipelines with relative anti-corrosion plastic coatings, through the following processes: machining, welding, finishing, sandblasting and subsequent hot coating of elastomeric sheaths by cutting, gluing, finishing, assembly and final application on metal components (IAF 17, 14)

CERTIFICAZIONE RILASCIATA IN CONFORMITÀ AL REGOLAMENTO TECNICO ACCREDIA RT-09
CERTIFICATION ISSUED IN ACCORDANCE TO ACCREDIA TECHNICAL REGULATION RT-09

Per l'Organismo di Certificazione
For the Certification Body
TÜV Italia S.r.l.

Validità / Validity

Dal / From: **2023-02-24**

Al / To: **2026-02-23**



SGA N° 018D

Il presente certificato è valido solo se è presente il logo di certificazione
This certificate is valid only if the certification logo is present

Francesco Scarlata

Data emissione / Issuing Date:

Francesco Scarlata
Direttore Divisione Business Assurance
Business Assurance Division Manager

2023-02-24

"LA VALIDITÀ DEL PRESENTE CERTIFICATO È SUBORDINATA A SORVEGLIANZA PERIODICA A 12 MESI E AL RIESAME COMPLETO DEL SISTEMA DI GESTIONE AZIENDALE CON PERIODICITÀ TRIENNALE"
"THE VALIDITY OF THE PRESENT CERTIFICATE DEPENDS ON THE ANNUAL SURVEILLANCE EVERY 12 MONTHS AND ON THE COMPLETE REVIEW OF COMPANY'S MANAGEMENT SYSTEM AFTER THREE-YEARS"

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CERTIFICAT

CERTIFICADO

CЕРТИФИКАТ

認證證書

CERTIFICATE

ZERTIFIKAT

Nova Siria products

End restraint



MULTIGRIP DOUBLE BOLT COUPLING PN 10 - PN 16



SMART JOINT WITH END RESTRAINT SYSTEM



MULTIGRIP SINGLE BOLT COUPLING PN 10 - PN 16



MULTIGRIP FLANGE ADAPTOR PN 10 - PN 16

Non restraint



LARGESIZE SINGLE BOLT COUPLING



LARGESIZE DOUBLE BOLT COUPLING



LARGESIZE FLANGE ADAPTOR



MULTISIZE COUPLING



MULTISIZE FLANGE ADAPTOR



SMART JOINT

Duofit - Duofit 2.0 - encapsulation fittings in two pieces



Special products



STEPPED COUPLINGS



NOVAGRIP



ANTI-LEAK CLAMPS



CIP JOINT



STEPPED MULTIGRIP



HOT TAPPING COLLARS



WIDEFLEX



BENDS



JOLLY JOINT



TEE WITH ADAPTABLE SOCKETS AND FLANGE TAPPING

Index

Page 8 - 9	Company profile and portfolio Advantages of Nova Siria fittings	
Page 10 - 14	Wide range steel fittings	
Page 16 - 19	Multisize couplings and Flange adaptors	
Page 20 - 27	Multigrip End restraint fittings PN 10 - PN 16	
Page 28	Multigrip liners	
Page 30 - 35	Duofit - Duofit 2.0 Encapsulation couplings in two pieces	
Page 40 - 43	Smart Joint Wide range couplings and flange adaptors	
Page 44 - 47	Smart Joint Wide range couplings and flange Adaptors with end restraints	
Page 48	Smart Joint liners	
Page 50 - 53	Special products	
Page 56 - 60	Case studies	

Company profile

- Founded in 1932 in Turin, Italy
- Certificates: ISO 9001
- Distribution in more than 35 countries worldwide
- Flexible production systems for tailor-made solutions



Product portfolio

- Repairing and hot tapping couplings
- Connection couplings
- Cast iron adaptable fittings
- Wide range steel couplings
- End restraint fittings
- Tapping collars
- Anti-leak clamps
- Hot tapping collars
- Special steel fittings

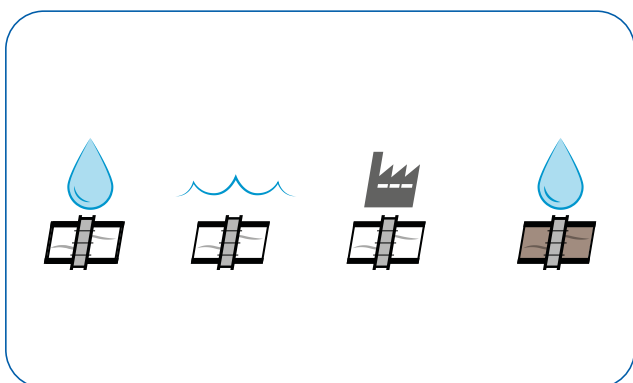


Advantages of Nova Siria fittings



Advantages of our fittings

- Suitable for pipes of any material
- Wide range
- Choice of body length
- Resistant to corrosion
- Multi-material end restraint system



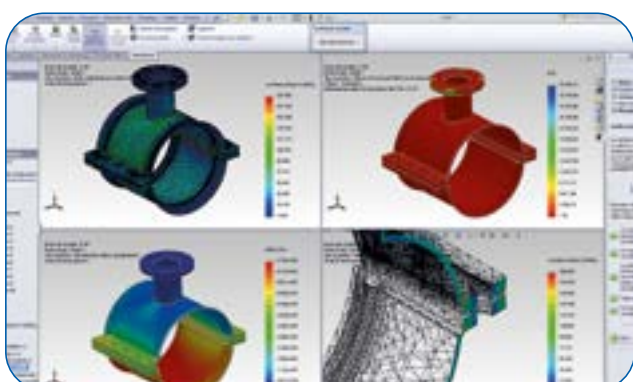
Applications

- Water industry
- Marine applications
- Industrial plants
- Sewage industry



Tests

- Pressure test
- Cyclical test
- Endurance test
- Temperature test
- Pull-out resistance test
- Angular deflection test



Design to the customer needs

NOVA SIRIA uses design systems with “solid modeling 3D” (SolidWorks® - Dassault Systemes) techniques which allow the management of specific structural calculations of “Stress Analysis” about materials’ resistance as well as external and internal stresses.

Steel fittings



VERSIONS	LSN10 / LSN10-D / LSN40	
	STANDARD	OPTIONS
NOMINAL SIZES DN	300 - 2000 and bigger	
PN	From PN 6 to PN 25 (and higher ratings)	
MEDIUM	Potable and raw water	Sea water
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
SEALING GASKETS	EPDM rubber	NBR, NEOPRENE
COMPRESSION BOLTS	steel with anti-corrosion coating	Grade 304/316 stainless steel
COATING	Rilsan Nylon 11	
RANGE Ø d	30 mm	50 mm
ANGULAR DEFLECTION	From DN300 to DN1000 = +/-3° on each side with coupling ends*	
ANGULAR DEFLECTION	From DN1000 to DN2000: +/-2° on each side with coupling ends*	
* average datum in the middle of the range		
FOR FLANGED VERSION	EN 1092	Flanges according to different standards on request
FLANGES	PN 6, PN 10, PN 16, PN 25 (PN 40 and higher)	

Design features

of wide range steel fittings



1 Central body

Carbon steel central body conveniently built in order to allow a perfect movement of the gasket inside its dedicated conical seat.

2 Compression ring

Carbon steel compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and a 30 mm or 50 mm of tolerance range on pipe OD.

4 Bolt holes

Round or square holes for the bolt installation.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Connection flange (Flanged version)

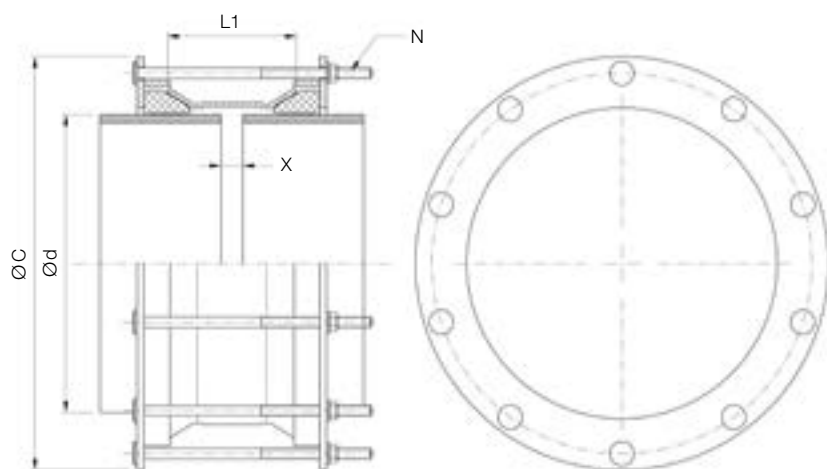
Carbon steel flange.

7 Separate bolt version

Independent tightening of the bolts, improves the coupling alignment and the performance of the gasket.

Wide range NSLSN10

Single bolt coupling



Designed and tailor-made on demand, suitable for pipes of any material. The full range starts with DN 300 up to DN 2000 and over.

Other sizes or ranges on request

DN	Ød		MOP (PN)	L1	Max. External Dimension ØC	Compression Bolts Quantity N	Gap X		Weight
	Min.	Max.					Max.	Min.	
300	320	350	6-10-16	176	500	8	50	20	46
350	340	370	6-10-16		520	10			48
	360	390	6-10-16		540				51
400	390	420	6-10-16		580	12			54
	410	440	6-10-16		600				56
450	435	465	6-10-16		620	14			59
	460	490	6-10-16		650				62
500	490	520	6-10-16		680	16			65
	510	540	6-10-16		700				67
	535	565	6-10-16		725				70
	560	590	6-10-16		750				73
600	590	620	6-10-16		780	18			76
	620	650	6-10-16		810				79
	645	675	6-10-16		835				82
700	670	700	6-10-16		860	20			85
	695	725	6-10-16	885	88				
	720	750	6-10-16	910	90				
	750	780	6-10-16	940	101				
800	780	810	6-10-16	970	22	105			
	805	835	6-10-16	995		108			
	835	865	6-10-16	1025		112			
	860	890	6-10-16	1050		115			
900	895	925	6-10-16	1085	24	119			
	925	955	6-10-16	1115		123			
	955	985	6-10-16	1145		126			
1000	985	1015	6-10-16	1175	26	174			
	1000	1030	6-10-16	1190		178			
	1030	1060	6-10-16	1220		182			
	1060	1090	6-10-16	1250		187			
1100	1080	1110	6-10-16	1270	28	190			
	1100	1130	6-10-16	1290		198			
	1130	1160	6-10-16	1320		199			
	1160	1190	6-10-16	1350		203			
1200	1185	1215	6-10-16	1375	30	207			
	1205	1235	6-10-16	1398		211			
	1235	1265	6-10-16	1428		216			
1300	1300	1330	6-10-16	1490	32	227			
	1335	1365	6-10-16	1525		232			
1400	1385	1415	6-10-16	1575	34	240			
	1410	1440	6-10-16	1600		245			
1500	1440	1470	6-10-16	1630	36	249			
	1510	1540	6-10-16	1700		336			
1600	1585	1615	6-10-16	1775	38	351			
	1610	1640	6-10-16	1800		357			
1800	1650	1680	6-10-16	1840	40	365			
	1825	1855	6-10-16	2035		404			
2000	1860	1890	6-10-16	2073	42	411			
	2020	2050	6-10-16	2230		491			
	2065	2095	6-10-16	2275	46	501			

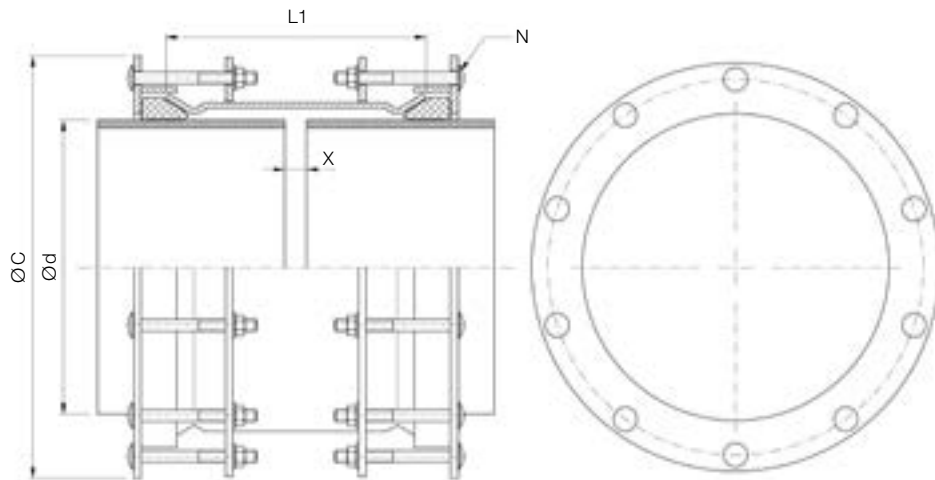
The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

Multisize series and wide range steel fittings provide the maximum hydraulic seal, however they do not restrain axial pipes movement (for this type of products please refer to the MULTIGRIP section)

Wide range NSLSN10D

Double bolt coupling



Other sizes or ranges on request

DN	Ø d		MOP (PN)	L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight	
	Min.	Max.				Quantity N	Max.	Min.		
300	320	350	6-10-16	346	500	16	50	20	77	
350	340	370	6-10-16		520	20			83	
	360	390	6-10-16		540				86	
400	390	420	6-10-16		580				24	91
	410	440	6-10-16		600					94
450	435	465	6-10-16		620	28				101
	460	490	6-10-16		650					105
500	490	520	6-10-16		680				32	110
	510	540	6-10-16		700					113
	535	565	6-10-16		725	120				
	560	590	6-10-16		750	124				
600	590	620	6-10-16		780	36			129	
	620	650	6-10-16		810				134	
	645	675	6-10-16		835				138	
	670	700	6-10-16		860				145	
700	695	725	6-10-16		885	40			149	
	720	750	6-10-16		910				153	
	750	780	6-10-16		940				173	
	780	810	6-10-16		970				178	
800	805	835	6-10-16		995	44			186	
	835	865	6-10-16		1025				191	
	860	890	6-10-16		1050				196	
	895	925	6-10-16		1085				202	
900	925	955	6-10-16		1115	48			210	
	955	985	6-10-16		1145				215	
	985	1015	6-10-16		1175				263	
1000	1000	1030	6-10-16		1190	52			269	
	1030	1060	6-10-16		1220				275	
	1060	1090	6-10-16		1250				282	
	1080	1110	6-10-16		1270				286	
1100	1100	1130	6-10-16		1290	56			293	
	1130	1160	6-10-16		1320				300	
	1160	1190	6-10-16		1350				306	
	1185	1215	6-10-16		1375				335	
1200	1205	1235	6-10-16		1398	60			343	
	1235	1265	6-10-16		1428				350	
1300	1300	1330	6-10-16		1490	64			368	
	1335	1365	6-10-16		1525				377	
1400	1385	1415	6-10-16		1575	68			389	
	1410	1440	6-10-16		1600				397	
1500	1440	1470	6-10-16		1630	76			404	
	1510	1540	6-10-16		1700				424	
1600	1585	1615	6-10-16		1775	92			442	
	1610	1640	6-10-16		1800				450	
1800	1650	1680	6-10-16		1840				460	
	1825	1855	6-10-16		2035				473	
2000	1860	1890	6-10-16		2073				570	
	2020	2050	6-10-16		2230				664	
	2065	2095	6-10-16		2275				678	

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

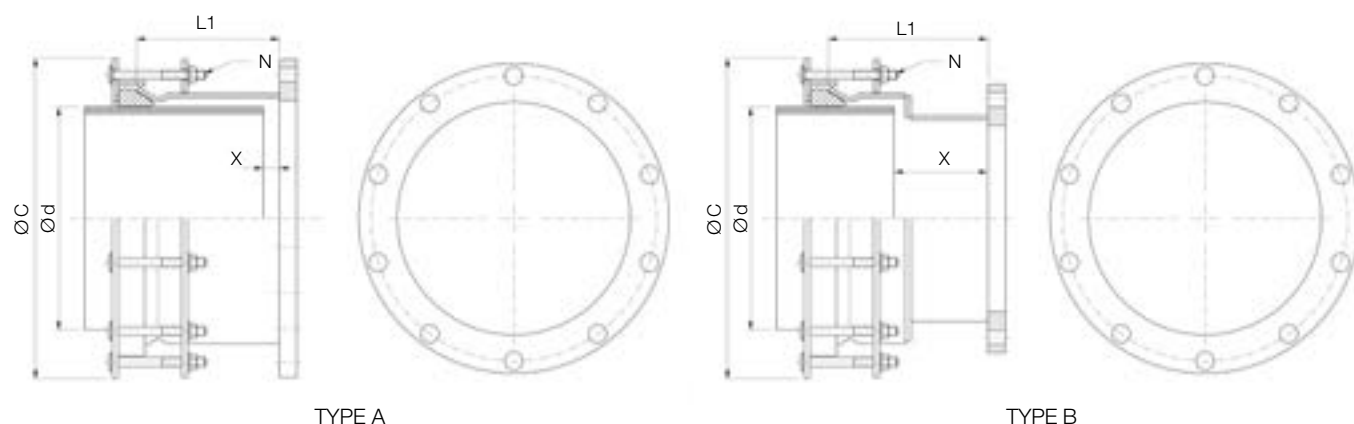
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Wide range LSN40

Flange adaptor

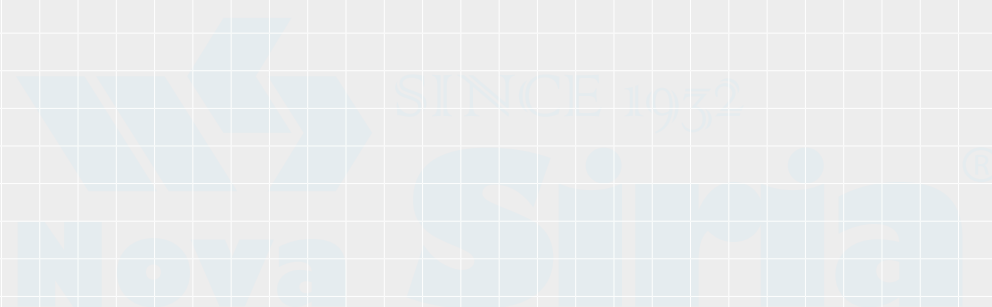


Other sizes or ranges on request

DN	Ø d		Flange DN	Flange PN	Type	L1	Max. External Dimension ØC	Compression Bolts	Gap X		Weight		
	Min.	Max						Quantity N	Max.	Min.			
300	320	350	300	6-10-16	B	286	500	8	210	170	57		
350	340	370	350	6-10-16	A	256	520	10	180	25	74		
	360	390		6-10-16			540				76		
400	390	420	6-10-16	580			87						
	410	440	6-10-16	600			89						
450	435	465	450	6-10-16	620	104							
	460	490		6-10-16	650	106							
500	490	520	500	6-10-16	680	128							
	510	540		6-10-16	700	130							
	535	565		B	286	725	210	170	133				
	560	590				750			135				
600	590	620	600	6-10-16	A	256	780	14	180	25	174		
	620	650		6-10-16			810				177		
	645	675		B	286	835	210				170	179	
700	670	700	700	6-10-16	A	256	860	16	180	25	165		
	695	725		6-10-16			885				168		
	720	750		6-10-16			910				170		
	750	780		B	286	940	210		170	184			
800	780	810	800	6-10-16	A	256	970	18	180	25	211		
	805	835		6-10-16			995				215		
	835	865		6-10-16			1025				218		
	860	890		B	286	1050	210		170	221			
900	895	925	900	6-10-16	A	256	1085	20	180	25	241		
	925	955		6-10-16			1115				245		
	955	985		B	286	1145	210		170	248			
1000	985	1015	1000	6-10-16	A	256	1175	22	180	25	307		
	1000	1030		6-10-16			1190				310		
	1030	1060		6-10-16			1220				314		
	1060	1090		B	286	1250	210		170	318			
1200	1185	1215	1200	6-10-16	A	256	1375	24	180	25	415		
	1205	1235		6-10-16			1398				418		
	1235	1265		6-10-16			1428				423		
1400	1385	1415	1400	6-10-16			1575	28			489		
	1410	1440		6-10-16			1600	494					
	1440	1470		6-10-16			1630	498					
1600	1585	1615	1600	6-10-16	A	256	1775	34			180	25	617
	1610	1640		6-10-16			1800						621
	1650	1680		6-10-16			1840						627
1800	1825	1855	1800	6-10-16			2035	38					680
	1860	1890		6-10-16			2073						752
2000	2020	2050	2000	6-10-16			2230	46					905
	2065	2095		6-10-16			2275						914

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range
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 Multisize series and wide range steel fittings provide the maximum hydraulic seal,
 however they do not restrain axial pipes movement (for this type of products please refer to the MULTIGRIP section)

Notes





VERSIONS	M10 / M40	
	STANDARD	OPTIONS
NOMINAL SIZES (DN)	350 - 1200	
PN	From PN 6 to PN 16	
MEDIUM	Potable and raw water	Sea water
BODY	Carbon steel	
COMPRESSION RINGS	Ductile iron ≤ Ød 650 * Carbon steel ≥ Ød 652 **	
SEALING GASKETS	EPDM rubber	NBR
COMPRESSION BOLTS	Steel with anti-corrosion coating	Grade 304/316 stainless steel
COATING	Rilsan Nylon 11	
RANGE Ød	* 30 mm ≤ Ød 650 ** 24 mm ≥ Ød 652	
ANGULAR DEFLECTION	From DN350 to DN700 = +/-3° on each side with coupling ends*	
ANGULAR DEFLECTION	From DN800 to DN900 = +/-2° on each side with coupling ends*	
ANGULAR DEFLECTION	From DN1000 to DN1200 = +/-1.5° on each side with coupling ends*	
*average datum in the middle of the range		
FOR FLANGED VERSION	EN 1092	
FLANGES	PN 6, PN 10, PN 16	

Design features

of multisize couplings and flange adaptors



1 Central body

Carbon steel central body conveniently built in order to allow a perfect movement of the gasket inside its dedicated conical seat.

2 Compression ring

Carbon steel compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and a 24 mm or 30 mm of tolerance range on pipe OD.

4 Bolt holes

Round or square holes for the bolts installation.

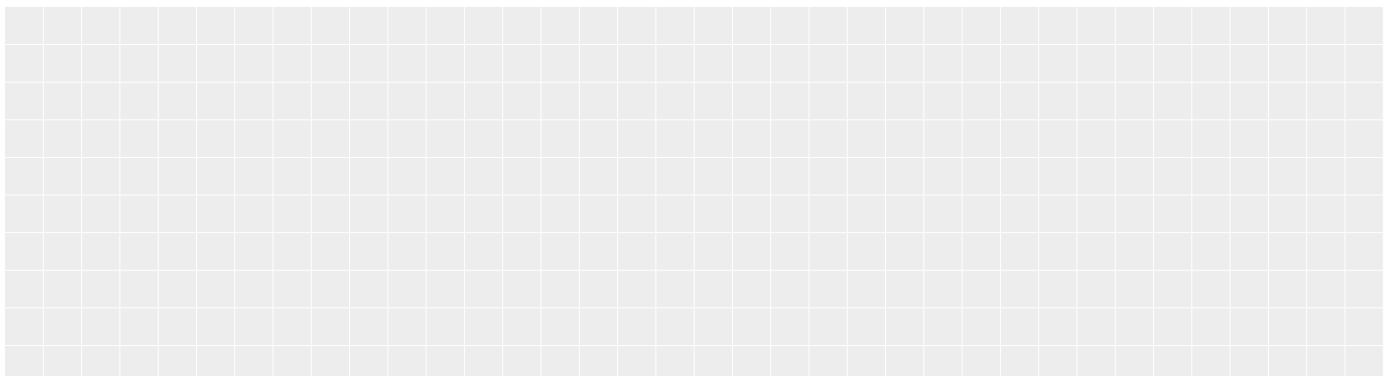
5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Connection flange (Flanged version)

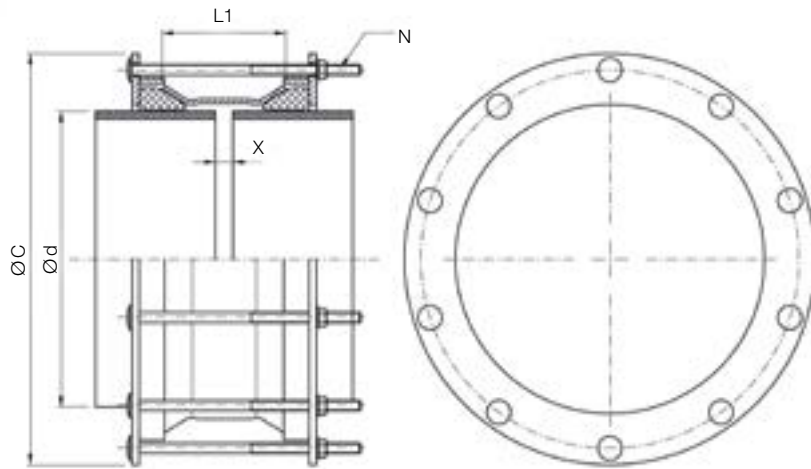
Carbon steel flange.

Notes



MULTISIZE M10

Single bolt coupling

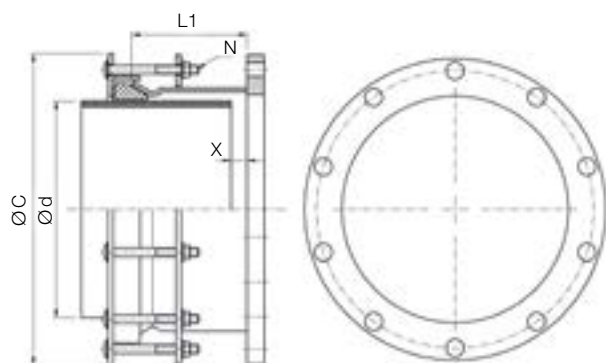


DN	Ø d		MOP (PN)	L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.				Quantity N	Max.	Min.	
350	340	370	6-10-16	170	546	10	60	20	35
	365	395	6-10-16		571				37
400	390	420	6-10-16		596				40
	410	440	6-10-16		616				42
450	438	468	6-10-16		644	12			45
	465	495	6-10-16		671				47
500	490	520	6-10-16		696				49
	518	548	6-10-16		724				53
600	590	620	6-10-16		796	14			58
	620	650	6-10-16		826				60
	652	676	6-10-16		819				62
700	680	704	6-10-16		847	16			65
	700	724	6-10-16		867				67
	726	750	6-10-16		893				72
	754	778	6-10-16		921				75
800	792	816	6-10-16		959	18			79
	806	830	6-10-16		973				82
	824	848	6-10-16		991				83
	856	880	6-10-16		1023				85
900	882	906	6-10-16		1049	20			88
	902	926	6-10-16		1069				89
	934	958	6-10-16		1101				92
	960	984	6-10-16		1127				95
1000	996	1020	6-10-16		1163	22			97
	1016	1040	6-10-16		1183				100
	1036	1060	6-10-16		1203				102
	1068	1092	6-10-16		1235				104
	1100	1124	6-10-16		1267	108			
	1116	1140	6-10-16		1283	24			109
	1140	1164	6-10-16		1307				111
1200	1180	1204	6-10-16		1347	26			115
	1206	1230	6-10-16		1373				117
	1244	1268	6-10-16		1411				119

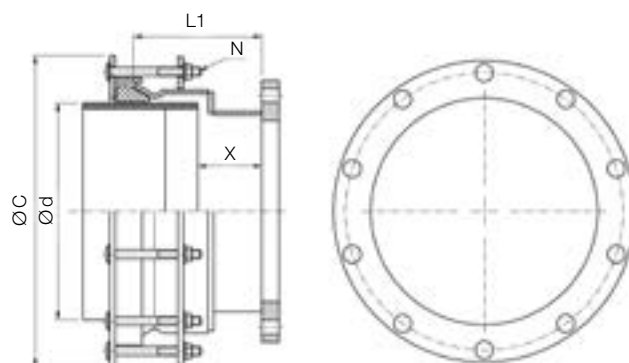
The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range Multisize series and wide range steel fittings provide the maximum hydraulic seal, however they do not restrain axial pipes movement (for this type of products please refer to the MULTIGRIP section)

MULTISIZE M40

Flange adaptor



TYPE A



TYPE B

DN	Ø d		Flange DN	Flange PN	Type	L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.						Quantity N	Max.	Min.	
350	340	370	350	10-16	A	216	546	10	160	20	62
	365	395		571			64				
400	390	420	400	10-16			596				73
	410	440		616			75				
450	438	468	450	10-16			644	12			88
	465	495		671			90				
500	490	520	500	10-16			696				110
	518	548		724			112				
600	590	620	600	10-16			796	14			150
	620	650		826			152				
	652	676		819			154				
700	680	704	700	10-16			847				16
	700	724		867			158				
	726	750		893			161				
	754	778		921	170		120	165			
800	792	816	800	10-16	959		18	172			
	806	830		973	160			20	173		
	824	848		991	175						
	856	880		1023	170			120	177		
900	882	906	900	10-16	1049		20	194			
	902	926		1069	160			20	196		
	934	958		1101	198						
	960	984		1127	170			120	200		
1000	996	1020	1000	10-16	1163		22	235			
	1016	1040		1183	160			20	237		
	1036	1060		1203	239						
	1068	1092		1235	170			120	241		
	1100	1124		1267	244						
	1116	1140		1283	245						
	1140	1164		1307	247						
1200	1180	1204	1200	10-16	1347		24	308			
	1206	1230		1373	160			20	310		
	1244	1268		1411	26			313			

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range Multisize series and wide range steel fittings provide the maximum hydraulic seal, however they do not restrain axial pipes movement (for this type of products please refer to the MULTIGRIP section)



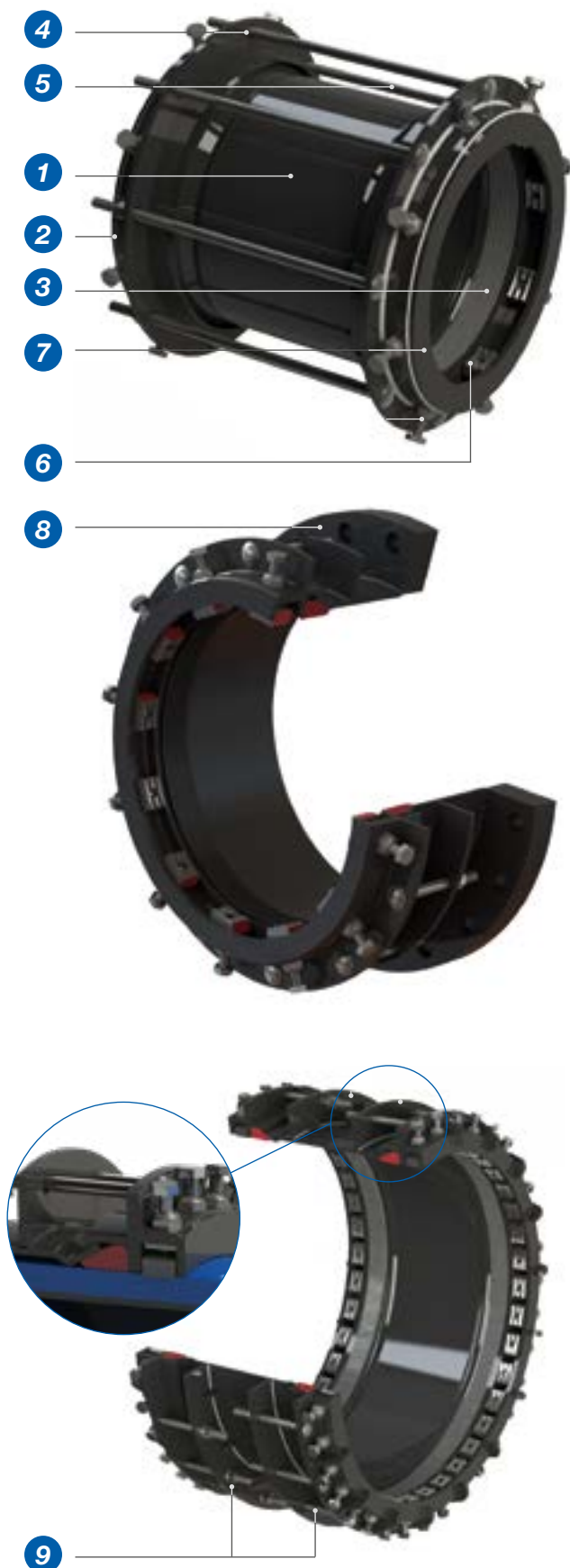
End restraint fittings



VERSIONS	MGR-S / MGR-D / MGR-F	
	STANDARD	OPTIONS
NOMINAL SIZES DN	350 - 1400 and bigger	
PN	From PN 10 to PN 16 (higher pressures on request)	
MEDIUM	Potable and raw water	Sea water
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
SEALING GASKETS	EPDM rubber	NBR, NEOPRENE
COMPRESSION BOLTS	steel with anti-corrosion coating	Grade 304 / 316 stainless steel
END RESTRAINT GRIPPERS	Tempered steel with anti-corrosion coating	Martensitic stainless steel
COATING	Rilsan Nylon 11	
RANGE Ø d	30 mm	
ANGULAR DEFLECTION	From DN350 to DN1000: +/-3° on each side with coupling ends*	
ANGULAR DEFLECTION	From DN1000 to DN1400: +/-2° on each side with coupling ends*	
* average datum in the middle of the range, before tightening the end restraint system		
FOR FLANGED VERSION	EN 1092	Flanges according to different standards on request
FLANGES	PN 10, PN 16, PN 25, PN 40 and higher ratings	

Design features

Of multigrip end restraint fittings



1 Central body

Carbon steel central body conveniently built in order to allow a perfect insertion of the gasket inside its dedicated conical seat.

2 Compression ring

Carbon steel compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and a 30 mm tolerance range on the pipe OD.

4 Bolt holes

Round or square holes for the bolt insertion.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Radial set of pull-out resistance grippers

Manufactured in C40 tempered steel, they allow the total locking of the pipe. End restraint grippers, which can be used on PE, steel, DCI and PVC pipe lines, guarantee a pull-out resistance action and their special design allows an easy assembly and disassembly of the coupling without damaging the Rilsan coating.

7 End restraint containing ring

Manufactured in carbon steel, optimizes the pull-out resistance action, also avoiding the rotation of the grippers during the tightening phase.

8 Connection flange (Flanged version)

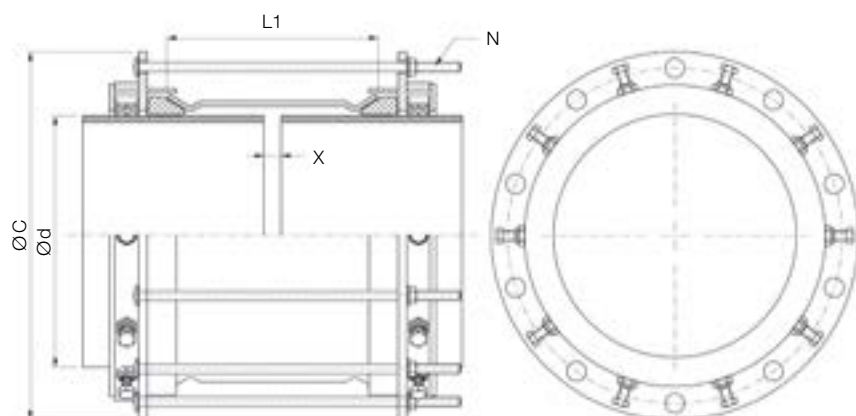
Carbon steel flange.

9 Separate bolts version

The bolts tightening is independent in order to improve the coupling centering and the performances of the gasket.

Multigrip MGR-S PN10

Single bolt coupling



PN 10 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.			Quantity N	Max.	Min.	
350	340	370	346	560	9	220	25	101
	360	390		580				105
400	385	415		600				110
	415	445		640				117
450	440	470		660	12			131
	465	495		680				136
500	490	520		720				142
	515	545		740				148
	545	575		788	14			159
600	595	625		808	15			171
	615	645		828				175
700	695	725		908	18			196
	720	750		933				224
800	785	815		998				239
	795	825		1008				241
	825	855		1038				277
900	885	915		1098	20			292
	900	930		1113				296
	930	960		1143				308
1000	985	1015		1198	22			322
	1000	1030		1213				326
	1030	1060		1243				359
1100	1100	1130		1313	24			378
	1135	1165		1348				403
1200	1185	1215		1398				418
	1205	1235		1418				423
	1240	1270		1453				438
1400	1385	1415		1598	30			-
	1405	1435		1618				-
	1445	1475		1658	32			-

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

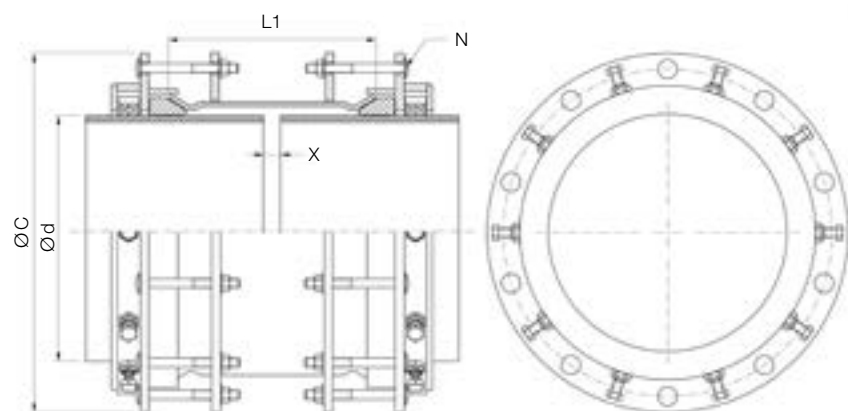
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip MGR-D PN10

Double bolt coupling



PN 10 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight	
	Min.	Max.			Quantity N	Max.	Min.		
350	340	370	396	560	18	220	25	127	
	360	390		580				133	
400	385	415		600				144	
	415	445		640				148	
450	440	470		660	24			163	
	465	495		680				170	
500	490	520		720				177	
	515	545		740				184	
	545	575		788	28			207	
	600	595		625	808			30	222
		615		645	828				228
700	695	725		908	36			254	
	720	750		933				284	
800	785	815		998				304	
	795	825		1008				307	
	825	855		1038				347	
900	885	915		1098	40			367	
	900	930		1113				372	
	930	960		1143				386	
1000	985	1015		1198	44			404	
	1000	1030		1213				409	
	1030	1060		1243				447	
1100	1100	1130		1313	48			471	
	1135	1165		1348				499	
1200	1185	1215		1398				517	
	1205	1235		1418				525	
	1240	1270		1453				542	
1400	1385	1415		1598	60			-	
	1405	1435		1618				-	
		1445		1475	1658			64	-

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

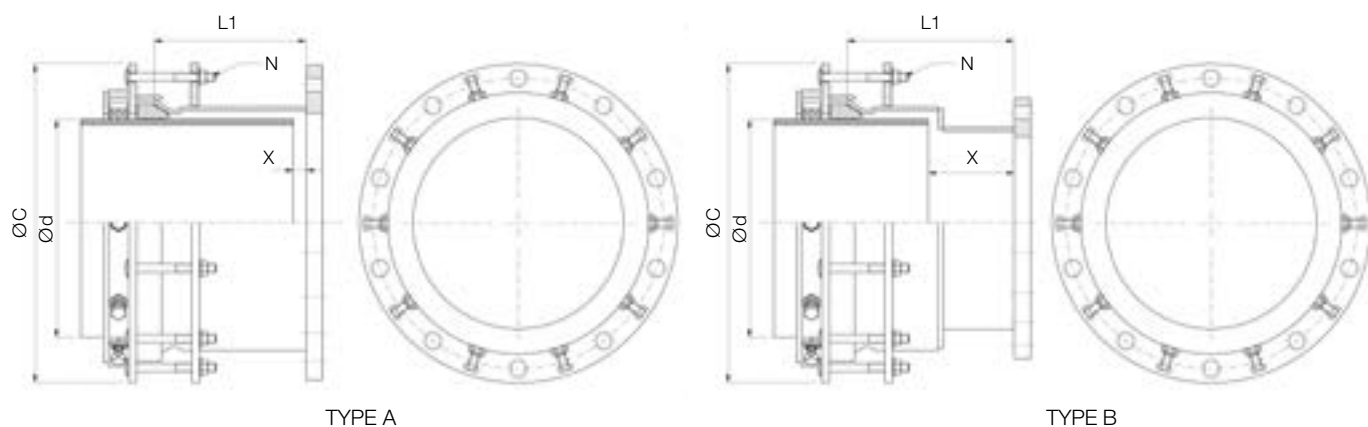
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip MGR-F PN10

Flange adaptor



PN 10 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		Flange DN	Flange PN	Type	L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.						Quantity N	Max.	Min.	
350	340	370	350	6-10-16	A	296	560	9	220	25	106
	360	390		6-10-16			580				109
400	385	415	400	6-10-16			600				122
	415	445		6-10-16			640				127
450	440	470	450	6-10-16			660	12			143
	465	495		6-10-16			680				148
500	490	520	500	6-10-16			720				160
	515	545		6-10-16			740				165
	545	575		B	326	788	14	250	170	178	
	595	625				600	6-10-16	808	15	220	25
600	615	645	6-10-16	828	207						
	700	695	725	700	6-10-16	908	18	238			
720		750	6-10-16		933	255					
800	785	815	800	6-10-16	998	290					
	795	825		6-10-16	1008	292					
	825	855		6-10-16	1038	315					
900	885	915	900	6-10-16	1098	20	342				
	900	930		6-10-16	1113		345				
	930	960		6-10-16	1143		366				
1000	985	1015	1000	6-10-16	1198	22	403				
	1000	1030		6-10-16	1213		407				
	1030	1060		6-10-16	1243		460				
1200	1185	1215	1200	6-10-16	1398	24	556				
	1205	1235		6-10-16	1418		561				
	1240	1270		6-10-16	1453		580				
1400	1385	1415	1400	6-10-16	1598		-				
	1405	1435		6-10-16	1618		-				
	1445	1475		6-10-16	1658	30	-				

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

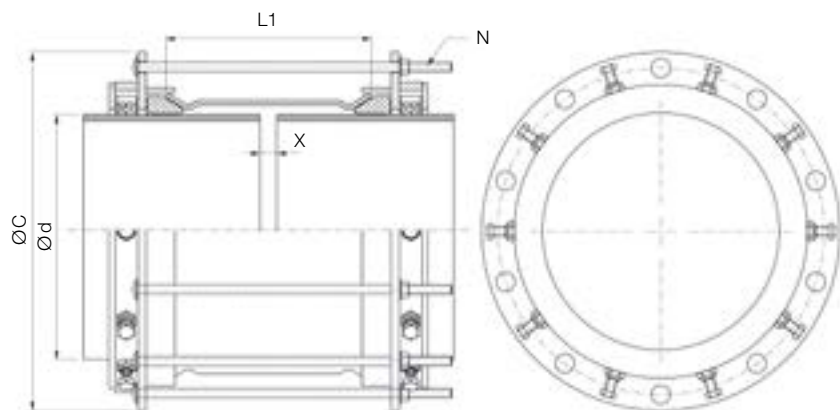
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip MGR-S PN16

Single bolt coupling



PN 16 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.			Quantity N	Max.	Min.	
350	340	370	346	560	9	220	25	119
	360	390		580				124
400	385	415		600				130
	415	445		640				139
450	440	470		660	12			153
	465	495		680				159
500	490	520		720				166
	515	545		740				173
	545	575		788	14			181
600	595	625		808	15			192
	615	645		828				197
700	695	725		908	18			235
	720	750		933				245
800	785	815		998				262
	795	825		1008				265
	825	855		1038	285			
900	885	915		1098	20			301
	900	930		1113				305
	930	960		1143				345
1000	985	1015		1198	22			361
	1000	1030		1213				366
	1030	1060		1243				380
1100	1100	1130		1313	24			-
	1135	1165		1348				-
1200	1185	1215		1398				-
	1205	1235		1418				-
	1240	1270		1453	-			
1400	1385	1415		1598	30			-
	1405	1435		1618				-
	1445	1475		1658				32

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

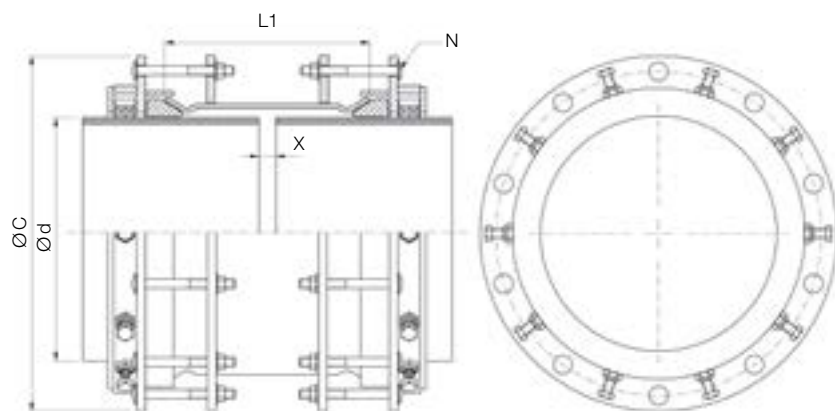
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip MGR-D PN 16

Double bolt coupling



PN 16 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight	
	Min.	Max.			Quantity N	Max.	Min.		
350	340	370	396	560	18	220	25	156	
	360	390		580				163	
400	385	415		600				172	
	415	445		640				182	
450	440	470		660	24			199	
	465	495		680				207	
500	490	520		720				216	
	515	545		740				225	
	545	575		788	28			228	
	600	595		625	808			30	244
		615		645	828				250
	700	695		725	908			36	295
720		750		933	307				
800	785	815		998	329				
	795	825		1008	332				
	825	855		1038	355				
900	885	915		1098	40			376	
	900	930		1113				381	
	930	960		1143				425	
	1000	985		1015	1198			44	446
1000		1030		1213	451				
1030		1060		1243	465				
1100	1100	1130		1313	48			-	
	1135	1165		1348				-	
1200	1185	1215		1398				-	
	1205	1235		1418				-	
	1240	1270		1453				-	
1400	1385	1415		1598	60			-	
	1405	1435		1618				-	
		1445		1475	1658			64	-

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

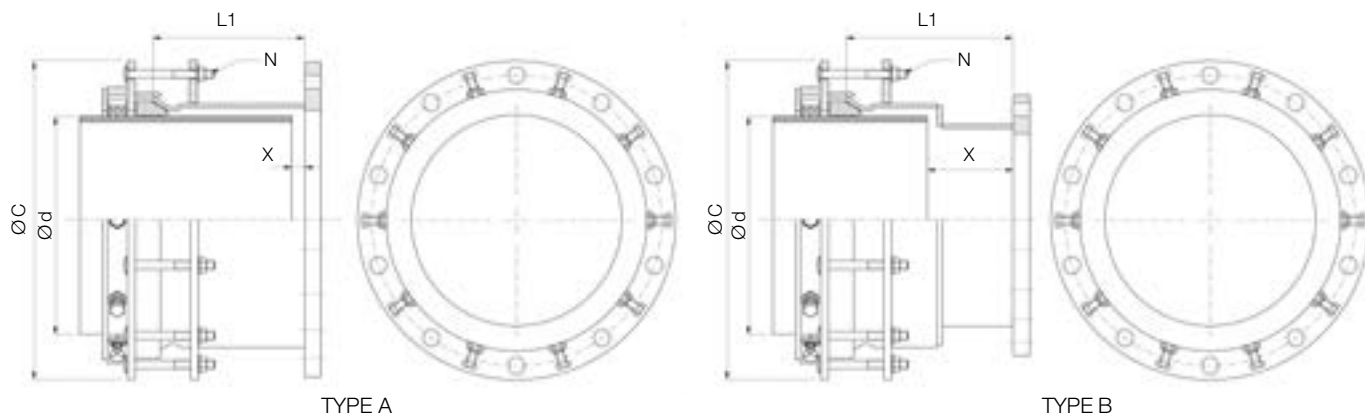
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip MGR-F PN 16

Flange adaptor



PN 16 RATED HYDRAULIC SEALING AND END RESTRAINT SYSTEM

Other sizes or ranges on request

DN	Ø d		Flange DN	Flange PN	TYPE	L1	Max. External Dimension Ø C	Compression Bolts	Gap X		Weight
	Min.	Max.						Quantity N	Max.	Min.	
350	340	370	350	6-10-16	A	296	560	9	220	25	132
	360	390		6-10-16			580				136
400	385	415	400	6-10-16			600				150
	415	445		6-10-16			640				157
450	440	470	450	6-10-16			660	12			178
	465	495		6-10-16			680				183
500	490	520	500	6-10-16			720				208
	515	545		6-10-16			740				213
	545	575		6-10-16	B	326	788	14	250	170	216
600	595	625	600	6-10-16	A	296	808	15	220	25	261
	615	645		6-10-16			828				265
700	695	725	700	6-10-16			908	18			278
	720	750		6-10-16			933				291
800	785	815	800	6-10-16			998				330
	795	825		6-10-16			1008				332
	825	855		6-10-16			1038				342
900	885	915	900	6-10-16			1098	20			355
	900	930		6-10-16			1113				375
	930	960		6-10-16			1143				440
1000	985	1015	1000	6-10-16			1198	22			490
	1000	1030		6-10-16			1213				494
	1030	1060		6-10-16			1243				510
1200	1185	1215	1200	6-10-16			1398	24			-
	1205	1235		6-10-16			1418				-
	1240	1270		6-10-16			1453				-
1400	1385	1415	1400	6-10-16			1598				-
	1405	1435		6-10-16			1618				-
	1445	1475		6-10-16			1658	30			-

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

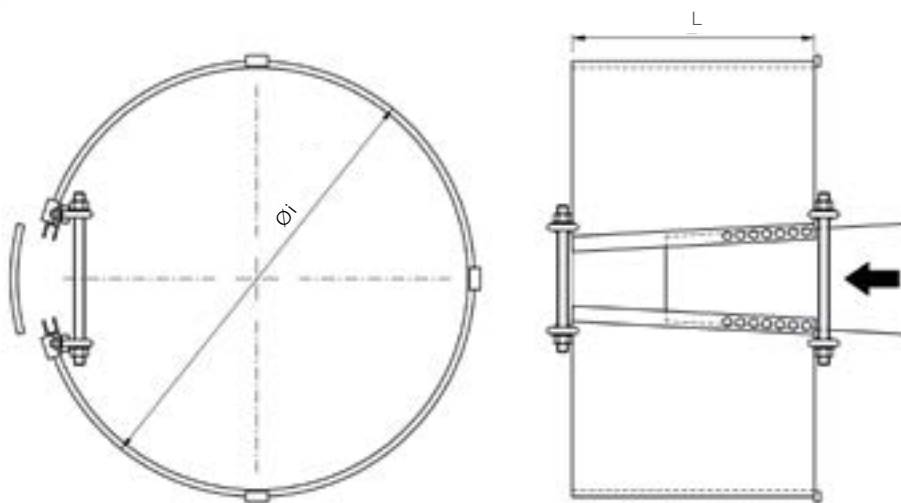
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

Multigrip liners

Liners



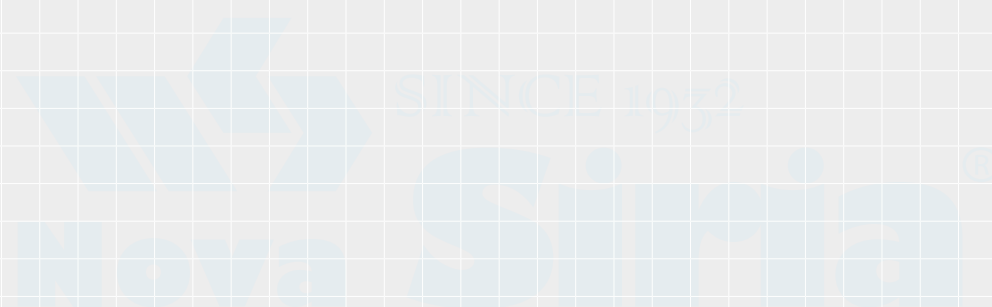
Always use the **NOVA SIRIA** reinforcing liner inside the pipe when installing an end restraint coupling onto PE and pressure PVC pipes. Liners are manufactured in carbon steel and coated with Rilsan Nylon 11 anticorrosion coating.

The liners reinforce the section of the pipe intended for the **MULTIGRIP** improving the overall performance of the radial grip. The design of the reinforcing liner can involve the use of one or more expansion wedges according to the ovality and tolerance of the PE/PVC pipe.

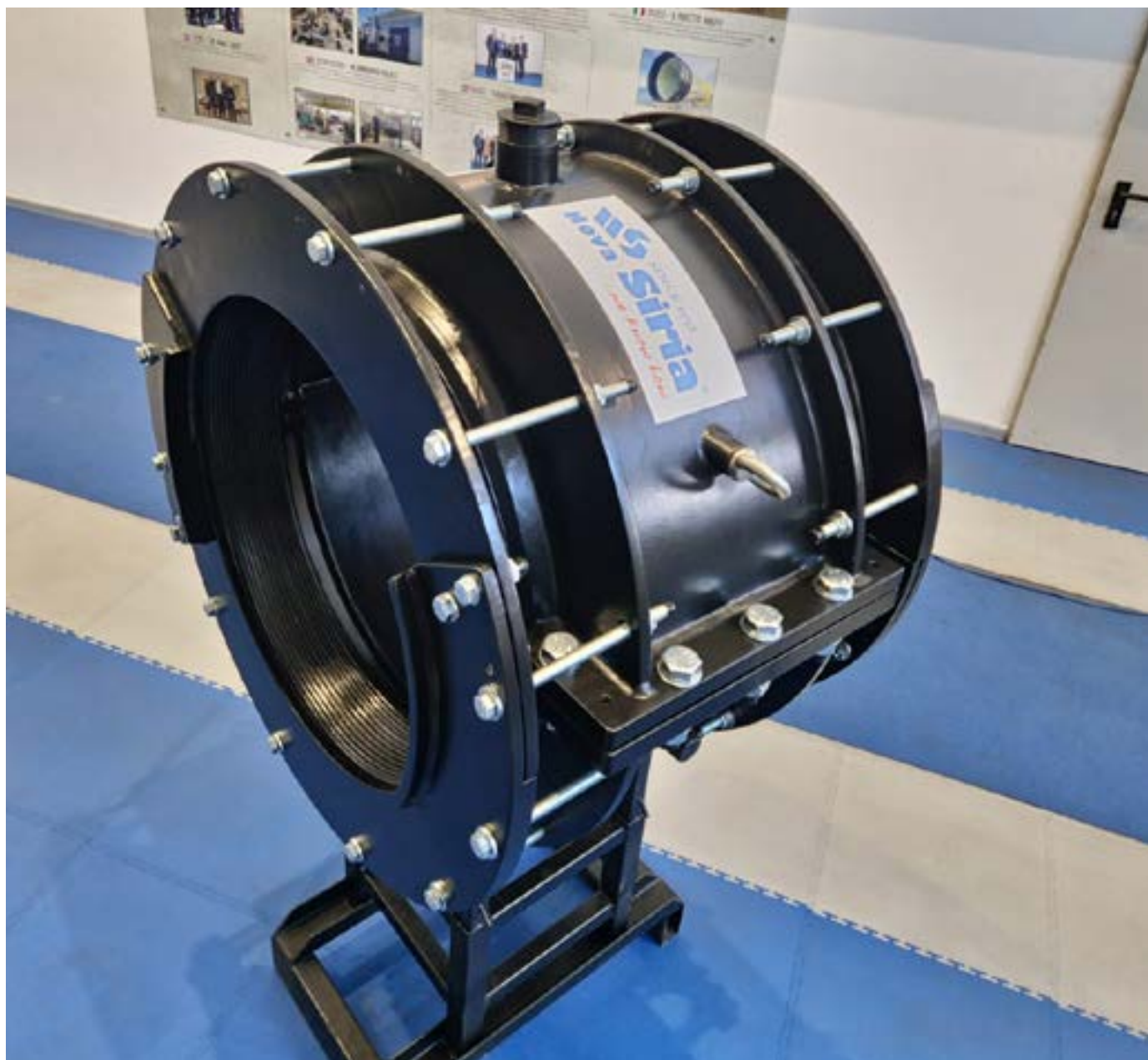


Øi	SDR			
	7,4	11	17	26
Ø PE pipe	Øi	Øi	Øi	Øi
355	258,0	290,6	312,8	327,8
400	290,6	327,4	352,6	369,4
450	327,0	368,2	396,6	415,6
500	-	409,2	440,6	461,8
560	-	458,4	493,6	517,2
630	-	515,6	555,2	581,8
710	-	-	625,8	655,6
800	-	-	705,2	738,8
900	-	-	793,4	831,2
1000	-	-	881,4	923,6
1200	-	-	-	1108,2
1400	-	-	-	1293,0
1600	-	-	-	1477,6
L = 350 mm				

Notes



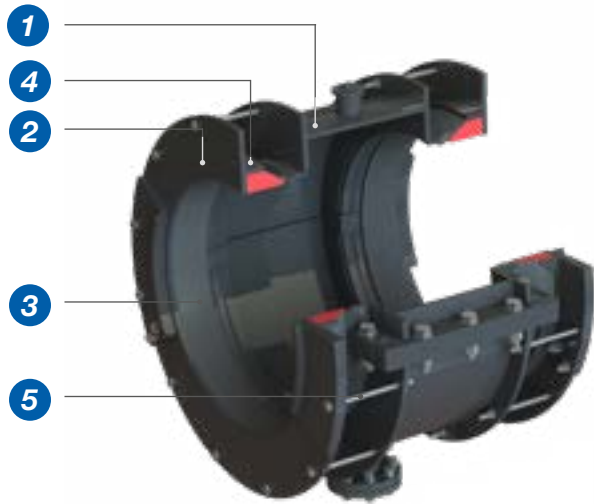
Encapsulation coupling in two pieces for pipe repair without flow interruption



VERSIONS	D2.30	
	STANDARD	OPTIONS
NOMINAL SIZES DN	350-1200	
PN	PN 10/16	
MEDIUM	Potable and raw water	Sea water
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
SEALING GASKETS	EPDM rubber	NBR
COMPRESSION BOLTS	steel with anti-corrosion coating	Grade 304 / 316 stainless steel
COATING	Rilsan Nylon 11	
RANGE Ød	42 mm	

Design features

of Duofit coupling in two pieces for pipe repair



1 Central body

Carbon steel central body conveniently built in order to allow a perfect insertion of the gasket inside its dedicated conical seat. designed according to the length and the diameter of the pipe or of the sleeve to be repaired, in order to perfectly cover them.

2 Compression ring

Carbon steel compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and a 30mm tolerance range on the pipe OD.

4 Bolt holes

Round or square holes for the bolt installation.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Lateral gasket

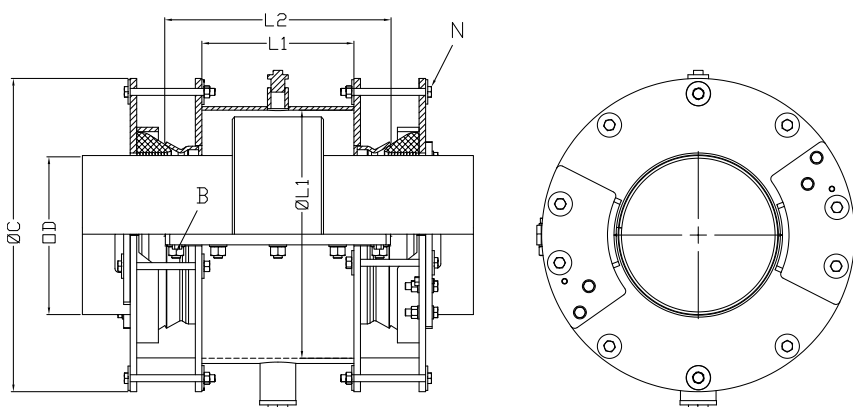
Lateral gasket with square section, it is compressed between the lateral plates and allows the hydraulic seal along the entire length of the Duofit.

7 Upper and lower outlets

They allow the DUOFIT assembly decreasing the pressure during the installation. They are also used in order to test the DUOFIT tightness once the installation is completed.

Duofit D2.30

shaped version



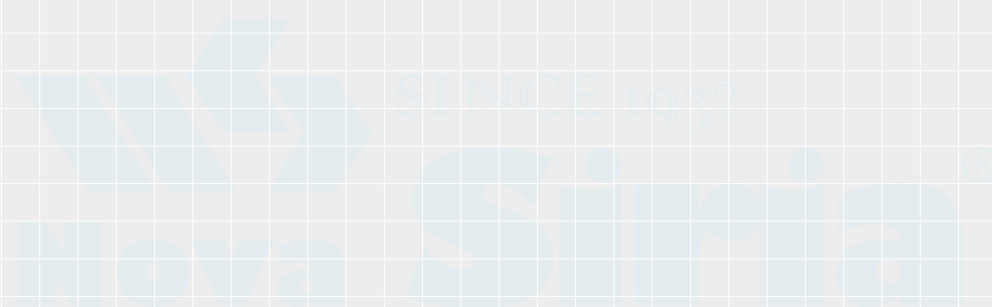
Duofit **D2.30** shaped version for repairs on sleeve collars of asbestos cement pipes, DCI pipes sockets, on a "GIBAUT" type joints, PE electrowelded fittings without interruption of supply.

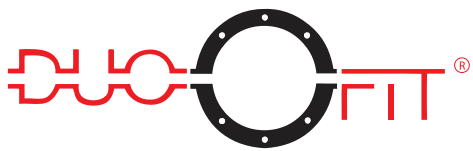
Other sizes or ranges on request

	Tolerance Range		Cavity ID (mm.)	Cavity Lenght (mm.)	Lenght L2	Max. External Dimension ØC	No. Flange Bolts N	No. Lateral Plates Bolts B	Weight (estimate)
	Max (mm.)	Min (mm.)							
D2.30E-390(490-300)-16	390	348	490	300	471	620	8	10	210
D2.30E-440(545-300)-16	440	398	545	300	471	685	8	10	230
D2.30E-490(590-300)-16	490	448	590	300	471	735	8	10	250
D2.30E-520(660-300)-16	520	478	660	300	471	790	8	10	275
D2.30E-545(680-300)-16	545	503	680	300	471	810	8	10	285
D2.30E-570(710-300)-16	570	528	710	300	471	840	10	10	300
D2.30E-602(730-300)-16	602	560	730	300	471	865	10	10	305
D2.30E-644(800-300)-16	644	602	800	300	471	930	10	10	340
D2.30E-696(850-300)-16	696	654	850	300	471	980	12	10	380
D2.30E-748(900-300)-16	748	706	900	300	471	1030	12	10	400
D2.30E-804(1000-300)-16	804	762	1000	300	501	1130	14	10	500
D2.30E-850(1030-300)-16	850	808	1030	300	501	1170	16	10	600
D2.30E-912(1080-300)-16	912	870	1080	300	501	1220	16	10	610
D2.30E-952(1130-300)-16	952	910	1130	300	501	1270	16	10	650
D2.30E-1020(1160-300)-16	1020	978	1160	300	471	1300	16	10	580
D2.30E-1058(1240-300)-16	1058	1016	1240	300	501	1380	18	10	710
D2.30E-1158(1358-300)-16	1158	1116	1358	300	501	1500	20	10	800
D2.30E-1236(1380-300)-16	1236	1194	1380	300	501	1520	20	10	760
D2.30E-1276(1400-300)-16	1276	1234	1400	300	471	1540	22	10	700

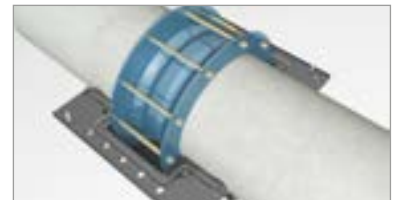
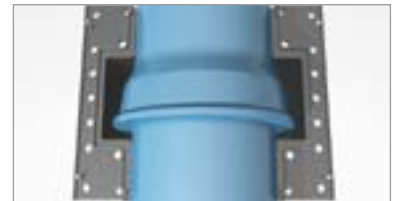
This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

Notes





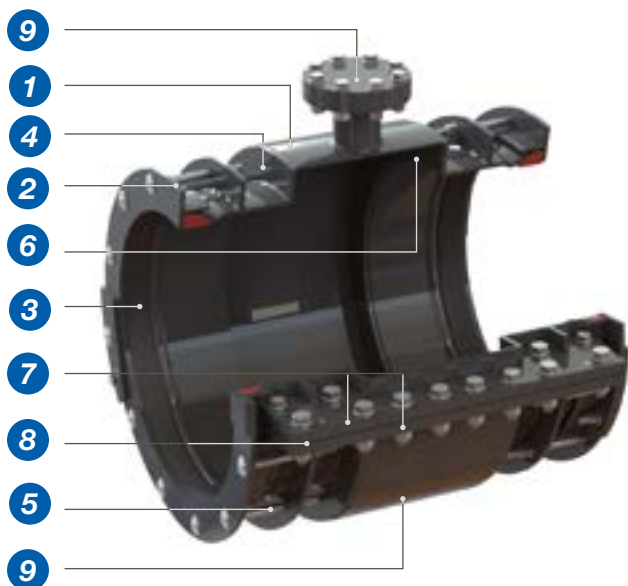
Encapsulation coupling in two pieces for pipe Repair and hot tapping without flow interruption



VERSIONS	D30 / D10 / D20-D	
	STANDARD	OPTIONS
NOMINAL SIZES DN	300 - 2000 and bigger	Hot tapping version
PN	From PN 10 to PN 25 and higher ratings	
MEDIUM	Potable and raw water	Sea water
BODY	Carbon steel	
COMPRESSION RINGS	Carbon steel	
SEALING GASKETS	EPDM rubber	NBR, NEOPRENE
COMPRESSION BOLTS	steel with anti-corrosion coating	Grade 304 / 316 stainless steel
COATING	Rilsan Nylon 11	
RANGE Ø d	30 mm	

Design features

of Duofit coupling in two pieces for pipe repair and hot-tapping



1 Central body

Carbon steel central body conveniently built in order to allow a perfect insertion of the gasket inside its dedicated conical seat.

2 Compression ring

Carbon steel compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and a 30mm tolerance range on the pipe OD.

4 Bolt holes

Round or square holes for the bolt installation.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Shaping

Manufactured in carbon steel, designed according to the length and the diameter of the pipe or of the sleeve to be repaired, in order to perfectly cover them.

7 Lateral plates

Manufactured in carbon steel, they allow the union of the two longitudinal shells of the DUOFIT allowing the repairing of the leak.

8 Lateral gasket

Lateral gasket with square section, it is compressed between the lateral plates and allows the hydraulic seal along the entire length of the Duofit.

9 Upper and lower outlets

They allow the DUOFIT assembly decreasing the pressure during the installation. They are also used in order to test the DUOFIT tightness once the installation is completed.



10 Straight version

Straight version for repairing pipeline straight sections.

11 Separate followers version

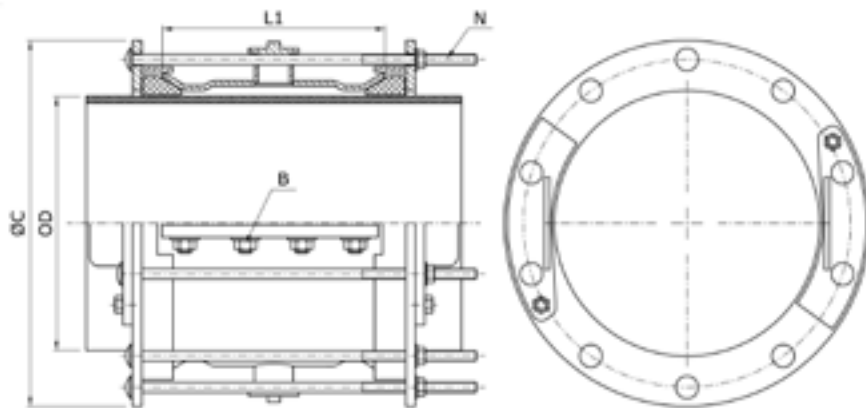
The bolts tightening is independent in order to improve the coupling centering and the performances of the gasket.



Duofit D10

Single bolt straight version

Straight version Duofit **D10** for repairs on damaged pipes (cracks, faulty weldings, corrosion, etc.) with no service cut off on pipes of any diameter. It can be also used for hot tapping techniques on pipes of any material and diameter with running fluids.



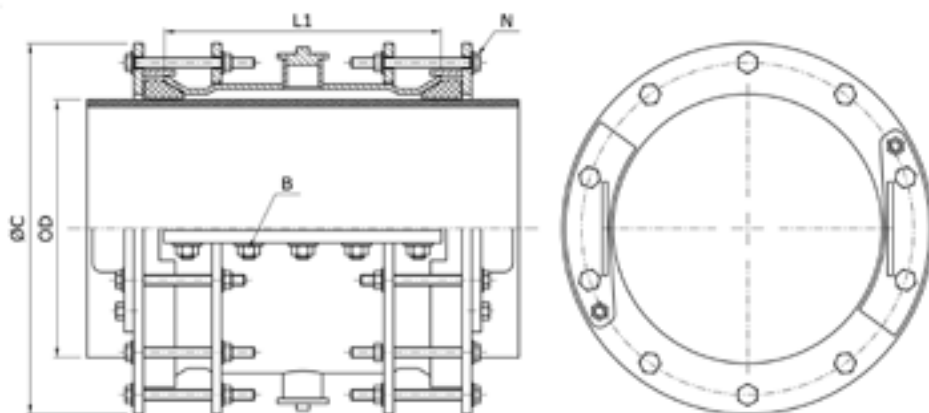
Other sizes or ranges on request

DN	Ø D		MOP (PN)	L1	Max. External Dimension Ø C	No. Flange Bolts N	No. Lateral Plates Bolts B	Weight
	Min.	Max.						
300	320	350	6-10-16	355	500	8	10	99
350	340	370	6-10-16		520	10		105
	360	390	6-10-16		540			108
400	390	420	6-10-16		580	12		113
	410	440	6-10-16		600			116
450	435	465	6-10-16		620	14		123
	460	490	6-10-16		640			127
500	490	520	6-10-16		680	16		132
	510	540	6-10-16		700			135
	535	565	6-10-16		720			142
	560	590	6-10-16		740			146
600	590	620	6-10-16		783	18		151
	620	650	6-10-16		813			160
	645	675	6-10-16		838			164
700	670	700	6-10-16		863	20		171
	695	725	6-10-16		888			175
	720	750	6-10-16		913			179
	750	780	6-10-16		943			184
800	780	810	6-10-16		973	22		189
	835	865	6-10-16		1028			200
	860	890	6-10-16		1053			205
900	895	925	6-10-16		1088	24		214
	925	955	6-10-16		1118			222
	955	985	6-10-16		1148			227
1000	985	1015	6-10-16		1178	26		232
	1000	1030	6-10-16		1193			237
	1030	1060	6-10-16		1223			241
	1060	1090	6-10-16		1253			246
1100	1080	1110	6-10-16		1273	28		250
	1100	1130	6-10-16		1293			255
	1130	1160	6-10-16		1323			260
	1160	1190	6-10-16		1353			265
1200	1185	1215	6-10-16		1378	30		270
	1205	1235	6-10-16		1398			275
	1235	1265	6-10-16		1428			280
1300	1300	1330	6-10-16		1493	32		297
	1335	1365	6-10-16		1528			303
1400	1385	1415	6-10-16		1578	34		311
	1410	1440	6-10-16		1603			318
	1440	1470	6-10-16		1633			323
1500	1510	1540	6-10-16		1703	32		337
1600	1585	1615	6-10-16		1778	34		349
	1610	1640	6-10-16		1803			356
	1650	1680	6-10-16		1843			363
1800	1825	1855	6-10-16		2018	40		403
	1860	1890	6-10-16		2053	42		408
2000	2020	2050	6-10-16		2213	46		442
	2065	2095	6-10-16		2258	48		450

This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

Duofit D20-D

Double bolt straight version



Straight version Duofit **D20** for repairs on damaged pipes (cracks, faulty weldings, corrosion, etc.) with no service interruption on pipes of any diameter. Can also be used for hot tapping techniques on pipes of any material and diameter with running fluids.

Other sizes or ranges on request

DN	Ø D		MOP (PN)	L1	Max. External Dimension Ø C	No. Flange Bolts N	No. Lateral Plates Bolts B	Weight
	Min.	Max.						
300	320	350	6-10-16	435	513	16	12	118
350	340	370	6-10-16		533	20		125
	360	390	6-10-16		553			129
400	390	420	6-10-16		583	24		135
	410	440	6-10-16		603			139
450	435	465	6-10-16		628	28		147
	460	490	6-10-16		653			152
500	490	520	6-10-16		683	32		158
	510	540	6-10-16		703			162
550	535	565	6-10-16		728	36		171
	560	590	6-10-16		753			176
600	590	620	6-10-16		783	40		186
	620	650	6-10-16		813			192
650	645	675	6-10-16		838	44		197
	670	700	6-10-16		863			205
700	695	725	6-10-16		888	48		210
	720	750	6-10-16		913			215
750	750	780	6-10-16		943	52		221
	780	810	6-10-16		973			227
800	835	865	6-10-16		1028	56		241
	860	890	6-10-16		1053			246
850	895	925	6-10-16		1088	60		257
	925	955	6-10-16		1118			267
900	955	985	6-10-16		1148	64		273
	985	1015	6-10-16		1178			279
1000	1000	1030	6-10-16		1193	68		285
	1030	1060	6-10-16		1223			291
1050	1060	1090	6-10-16		1253	72		297
	1080	1110	6-10-16		1273			301
1100	1100	1130	6-10-16		1293	76		308
	1130	1160	6-10-16		1323			314
1150	1160	1190	6-10-16		1353	80		320
	1185	1215	6-10-16		1378			325
1200	1205	1235	6-10-16		1398	84		333
	1235	1265	6-10-16		1428			339
1250	1300	1330	6-10-16		1493	88		359
	1335	1365	6-10-16		1528			366
1300	1385	1415	6-10-16		1578	92		376
	1410	1440	6-10-16		1603			384
1350	1440	1470	6-10-16		1633	96		390
	1510	1540	6-10-16		1703			407
1400	1585	1615	6-10-16		1778	100		422
1450	1610	1640	6-10-16		1803	104		431
	1650	1680	6-10-16		1843			439
1500	1825	1855	6-10-16		2018	108		488
	1860	1890	6-10-16		2053	84		495
1550	2020	2050	6-10-16		2213	112		536
	2065	2095	6-10-16		2258			545

This chart is for indicative purposes. Nova Siria srl can vary the indicated standards (tolerance range, dimensions and materials) according to specifications requested by Customers or to designing needs.

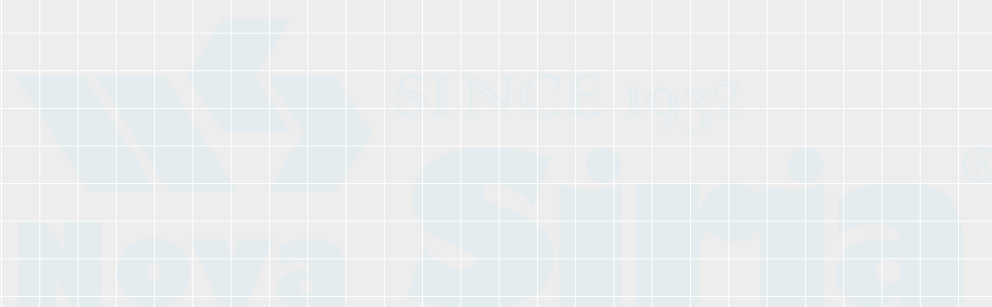
All illustrations, technical data, dimensions (in mm) and weights (all weights specified in kg) are non-binding. Subject to change.

Duofit

Assembling steps



Notes



Wide range couplings and flange adaptors

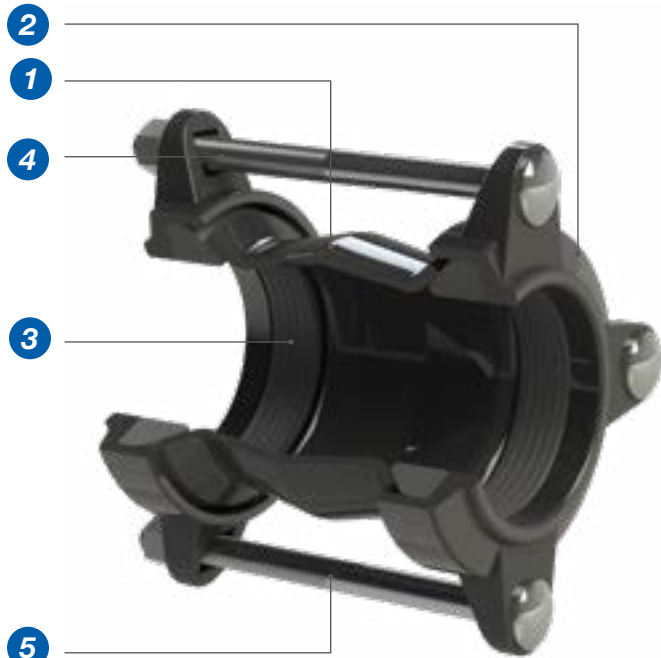


VERSIONS	SME / SMFE	
	STANDARD	OPTIONS
NOMINAL SIZES	50 - 300	
PN	From PN 6 to PN 16	
MEDIUM	Potable and raw water	
BODY	Ductile iron	
COMPRESSION RINGS	Ductile iron	
SEALING GASKETS	EPDM rubber	
BOLTS	Steel with anti-corrosion coating	Grade 304/316 stainless steel
COATING	Rilsan Nylon 11	
ANGULAR DEFLECTION	From DN50 to DN300 = $\pm 4^\circ$ on each side with coupling ends*	

*average datum in the middle of the range

DESIGN FEATURES

Of Smart Joint couplings and flange adaptors



1 Central body

Ductile iron central body conveniently built in order to allow a perfect insertion of the gasket inside its dedicated conical seat.

2 Compression ring

Ductile iron compression followers which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and up to 26 mm tolerance range on the pipe OD.

4 Bolt holes

Round or square holes for the bolt insertion.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.



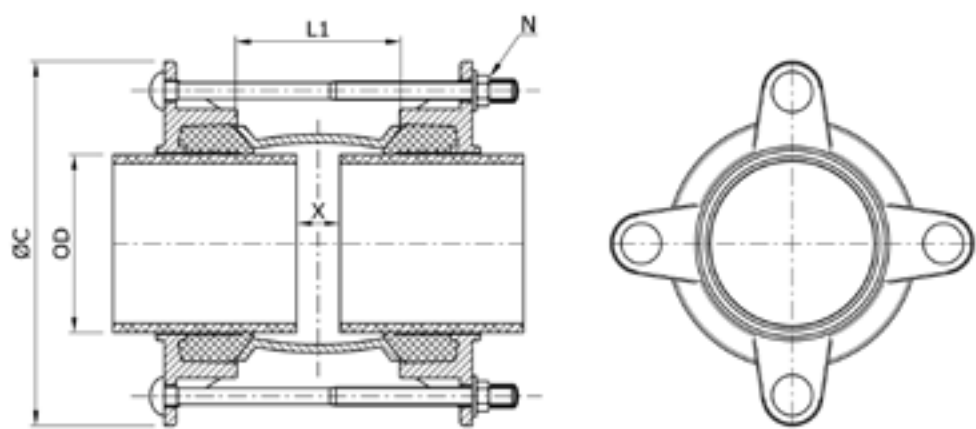
6 Connection flange (Flanged version)

Ductile iron flange.

The SMART series couplings represent the standard version of Nova Siria product range and provide a perfect and fast connection between pipes of any material with same or different outside diameters up to 327 mm. Versions: straight version, flanged version with multiple flange drillings and end restraint version (Pipe Locking System).

Smart Joint

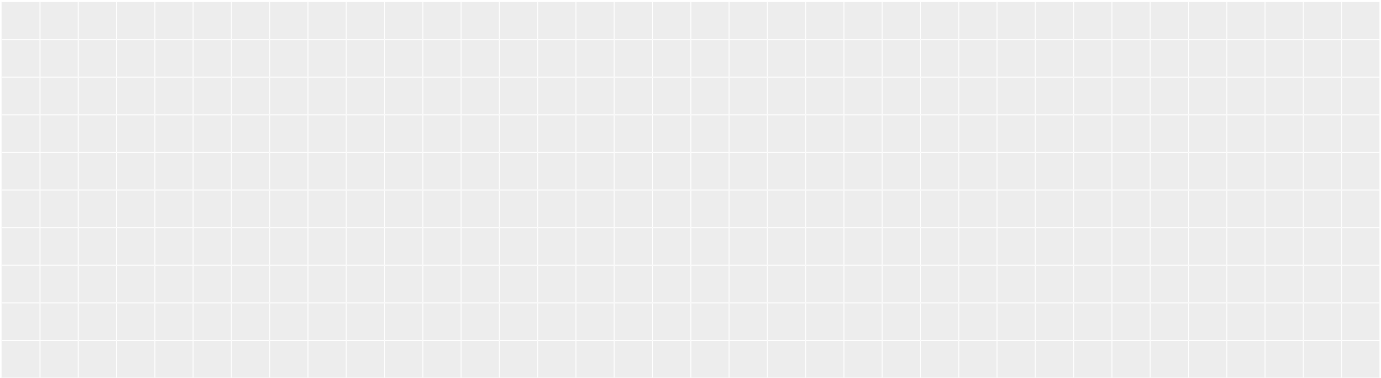
Smart series straight couplings



DN	ØD		L1	ØC	Bolts	Gap X		Weight
	Min.	Max.			Quantity	Max	Min.	
50	58	74	102	170	4	40	12	3.0
65	68	84		183				3.6
80	84	105		210				5.0
100	99	118		223				5.4
	109	133		244				6.0
125	133	157		268				6.7
150	157	182	118	296		9.5		
	177	201		314		9.8		
200	194	215		140		322		10.3
	218	242	354			13.5		
225	242	268	162	403	50	16.3		
250	266	291		6	60	17.4		
	280	305				19.0		
300	302	327				443		20.0

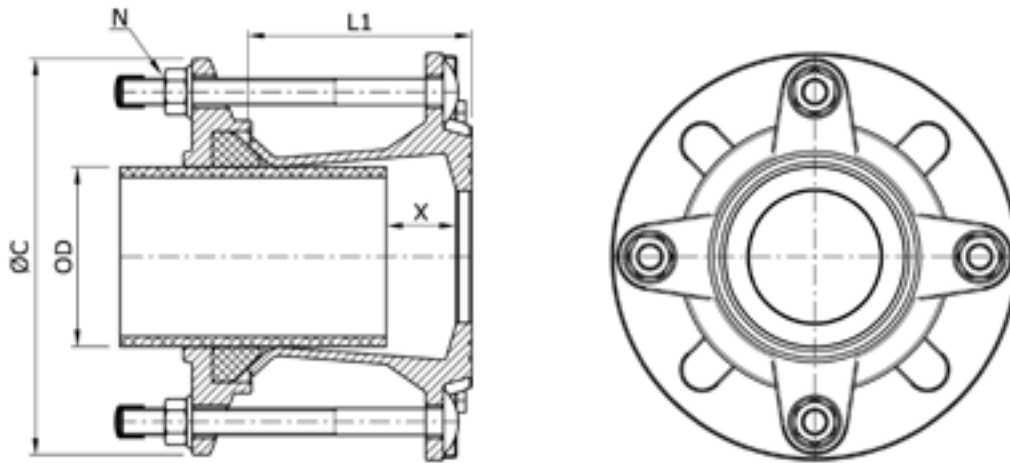
The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

Notes



Smart Joint

Smart series flange adaptors



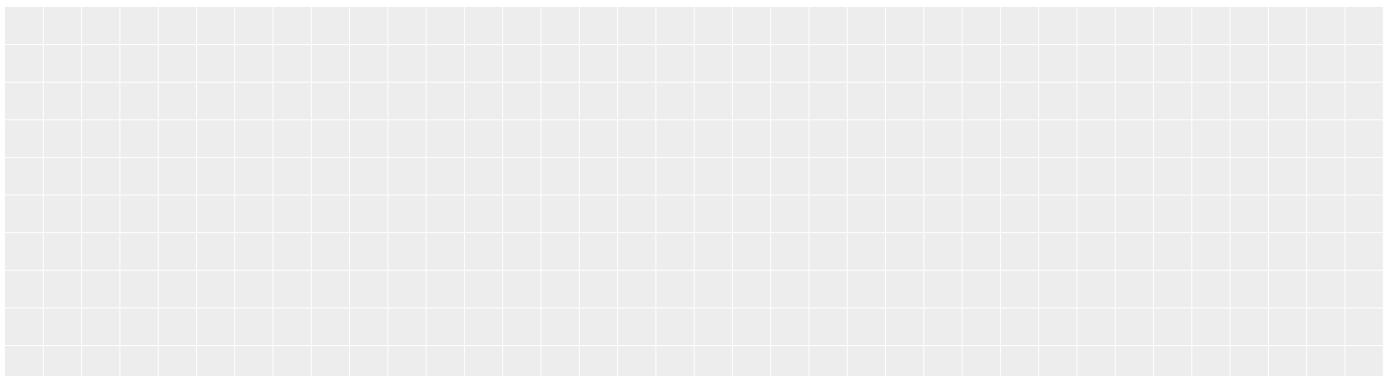
DN	Ø D		L1	ØC	Bolts	Gap X		Type Of Flange	Weight	
	Min.	Max.			Quantity	Max	Min.			
50	58	74	100	170	4	70	40	a,b,c,d	3,9	
50/65	68	84		183				a,b,c,d	4,5	
80	84	105		210				a,b,c,d	5,2	
100	99	118		223				a,b,c,d	5,9	
	109	133		244				a,b,c,d	6,5	
125/150	133	157	116	268		80	35	a,b,c,d	8,4	
150	157	182	110	296				a,b,d	10	
200	194	215	118	322				20	a,b,d	12
	218	242	120	354				35	a,b	14,4
250	242	268		6			a,b		17,4	
	266	291			a,b		17,8			
	280	305			a,b		21			
300	302	327			443		a,b,d		23,7	

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

FOR FLANGED VERSION

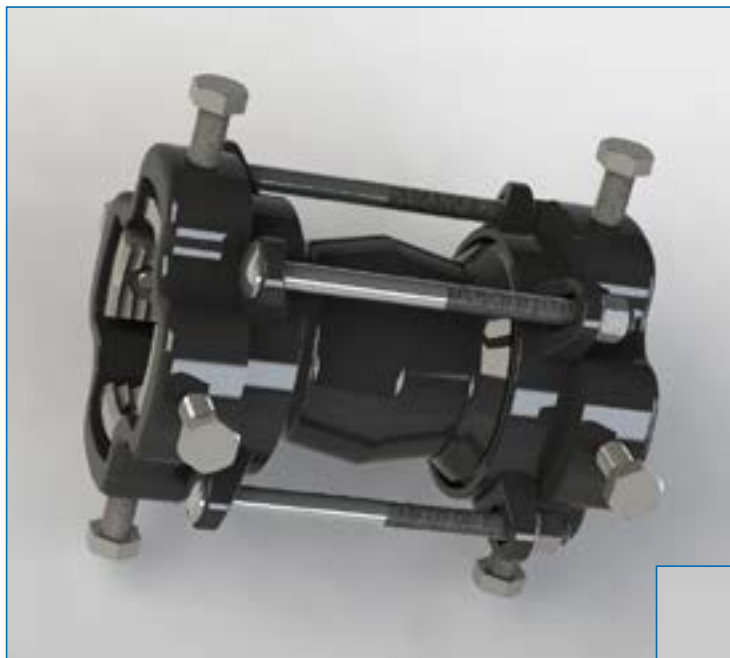
- a. EN1092 PN10, PN16
- b. ANSI B16. CL125
- c. BS 10 TABLE D
- d. BS 10 TABLE E

Notes



Smart Joint

Wide range couplings and flange adaptors with end restraint system



VERSIONS	SMPL / SMFPLE	
	STANDARD	OPTIONS
NOMINAL SIZES	50 - 300	
PN	From PN 6 to PN 16	
MEDIUM	Potable and raw water	
BODY	Ductile iron	
COMPRESSION RINGS	Ductile iron	
SEALING GASKETS	EPDM rubber	
BOLTS	Steel with anti-corrosion coating	Grade 304/316 stainless steel
END RESTRAINT GRIPPERS	Tempered steel with anti-corrosion coating	
COATING	Rilsan Nylon 11	
ANGULAR DEFLECTION	From DN50 to DN300 = $\pm 4^\circ$ on each side with coupling ends*	

*average datum in the middle of the range, before tightening the end restraint system

Design features

of Smart Joint couplings and flange adaptors with end restraint system



1 Central body

Ductile iron central body conveniently built in order to allow a perfect insertion of the gasket inside its dedicated conical seat.

2 Compression ring

Ductile iron compression rings which allow compression of the gasket onto the pipe surface upon tightening the bolts.

3 Gasket

Truncated-cone sealing gasket which can be perfectly inserted between the central body of the coupling and the circumference of the pipe. It allows a complete hydraulic seal and up to 26 mm tolerance range on the pipe OD.

4 Bolt holes

Round or square holes for the bolt insertion.

5 Compression bolts

The compression bolts allow the approaching of the compression flanges and the consequent compression of the gasket onto the pipe.

6 Radial set of pull-out resistance grippers

Manufactured in C40 tempered steel, they allow the total locking of the pipe. End restraint grippers, which can be used on PE, steel, DCI and PVC pipelines, guarantee a pull-out resistance action during the installation and their special design allows an easy assembly and disassembly of the coupling without damaging the Rilsan coating.

7 End restraint containing ring

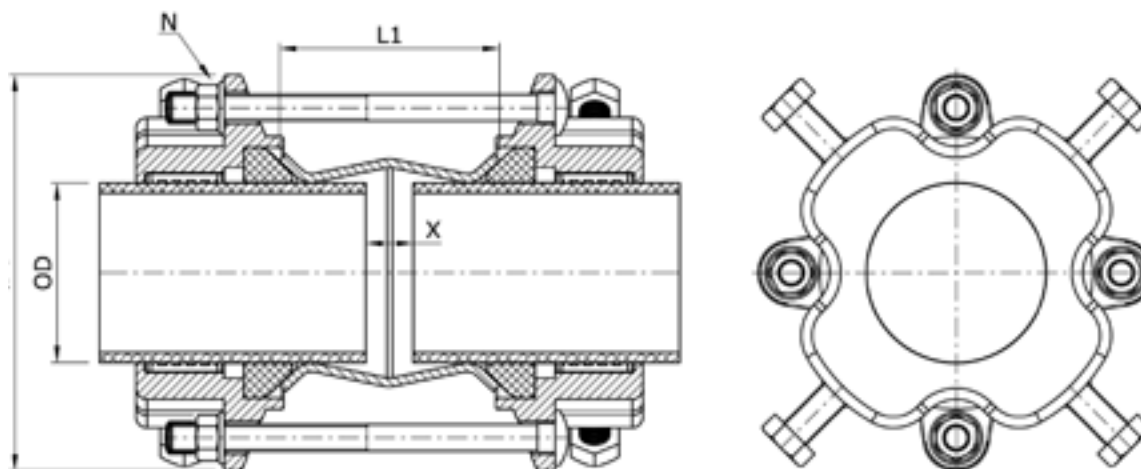
Manufactured in ductile iron, it optimizes the pull-out resistance action, also avoiding the rotation of the grippers during the tightening phase.

8 Connection flange (Flanged version)

Ductile iron flange.

Smart Joint

Smart series straight couplings with end restraint system



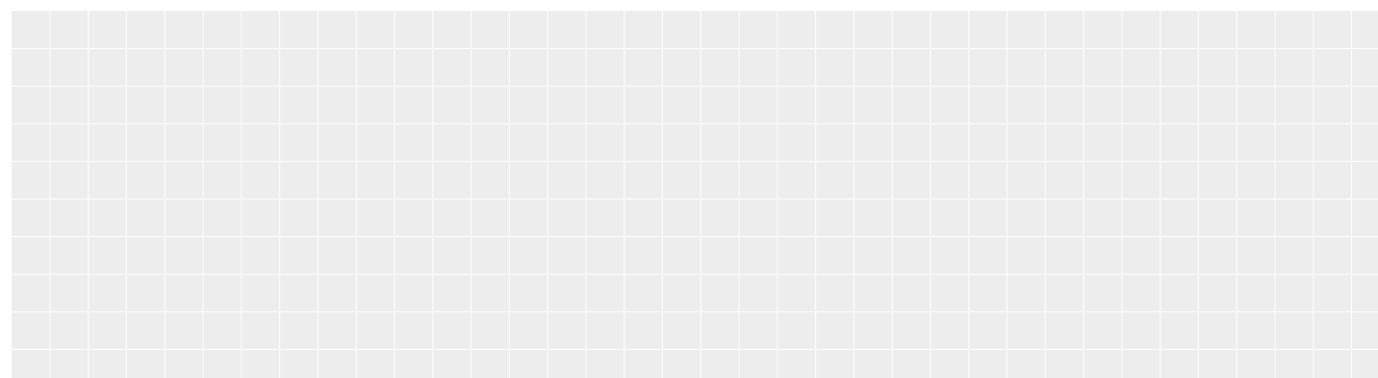
DN	Ø D		L1	ØC	Bolts	Gap X		Weight
	Min.	Max.			Quantity	Max	Min.	
50	58	74	102	170	4	40	12	8,04
65	68	84		183				8,82
80	84	105		210				11,1
100	99	118		223				12,3
	109	133		244				12,62
125	133	157		268				14
150	157	182	118	296		50		17,74
	177	201		314				17,92
200	194	215		140				322
	218	242	354					21,34
225	242	268	403		6			60
250	266	291	162	405				
	280	305		424		40,96		
300	302	327		443				

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, CI/DI, PE, pressure PVC.

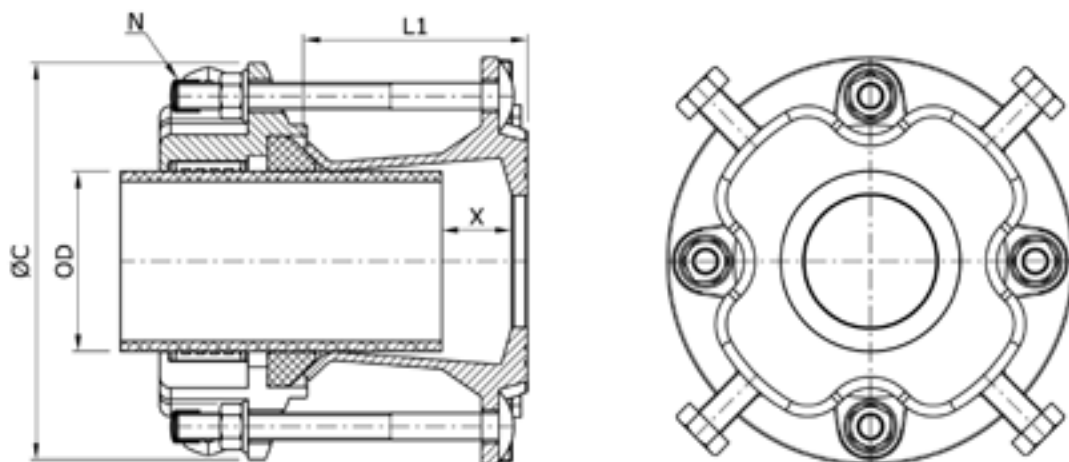
All end restraint fittings installed on PE or pressure PVC pipes must be integrated with an internal reinforcing liner provided or approved by NOVA SIRIA.

Notes



Smart Joint

Smart series flange adaptors with end restraint system



DN	Ø D		L1	ØC	Bolts	Gap X		Type Of Flange	Weight
	Min.	Max.			Quantity	Max	Min.		
50	58	74	100	170	4	70	40	a,b,c,d	6,22
50/65	68	84		183				a,b,c,d	7,2
80	84	105		210				a,b,c,d	8,26
100	99	118		223				a,b,c,d	8,96
	109	133		244				a,b,c,d	10,32
125/150	133	157	116	268		80	35	a,b,c,d	13,46
150	157	182	110	296				a,b,d	13,72
200	194	215	118	322			20	a,b,d	16,88
	218	242	120	354			35	a,b	18,48
250	242	268		6				a,b	23,92
	266	291			a,b			30,18	
	280	305			a,b			33,5	
300	302	327				443			a,b,d

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

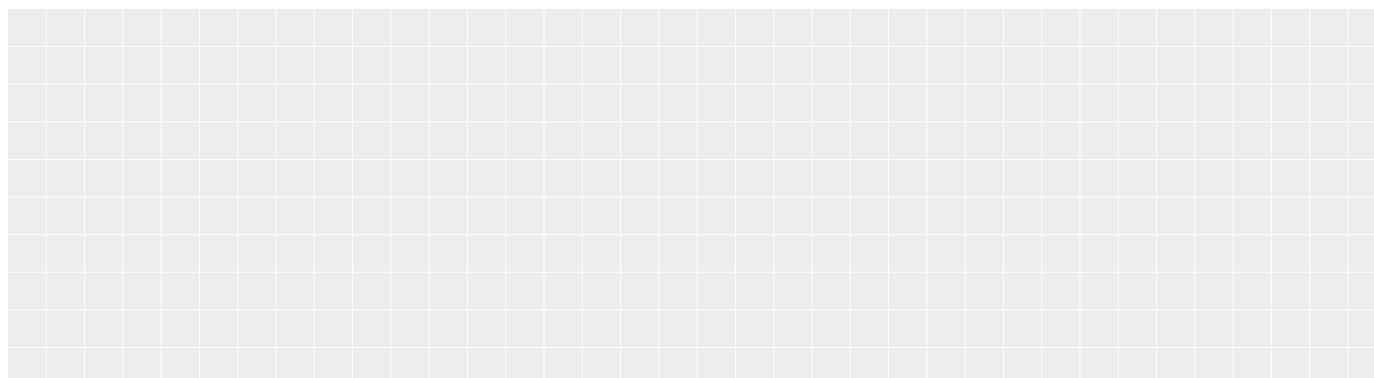
NOVA SIRIA end restraint fittings are suitable for the following pipes: steel, ci/DI, PE, pressure PVC.

All end restraint fittings installed on pe Or pressure PVC Pipes must be integrated with an internal reinforcing liner provided or approved by noVA SIRIA.

FOR FLANGED VERSION

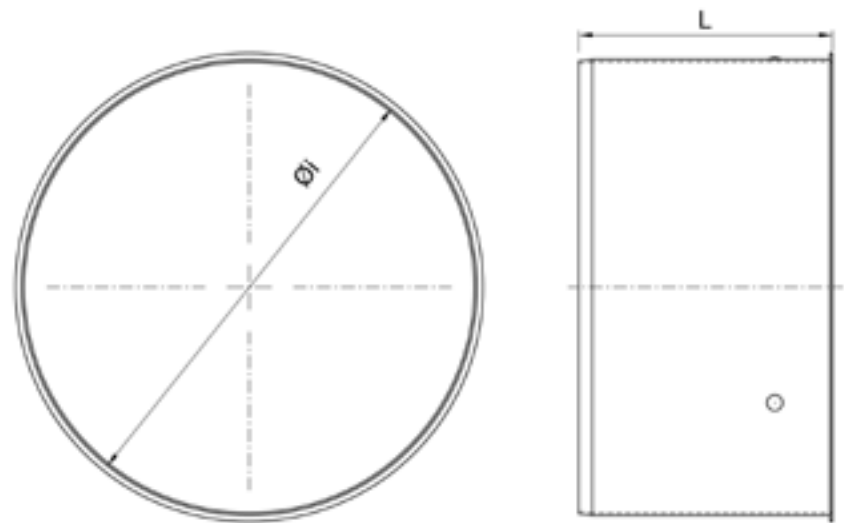
- a. EN1092 PN10, PN16
- b. ANSI B16. CL125
- c. BS 10 TABLE D
- d. BS 10 TABLE E

Notes



Smart Joint liners

Insert liners



Always use the **NOVA SIRIA** reinforcing liner inside the pipe when installing an end restraint coupling on PE and pressure PVC pipes. Liners are manufactured in stainless steel.

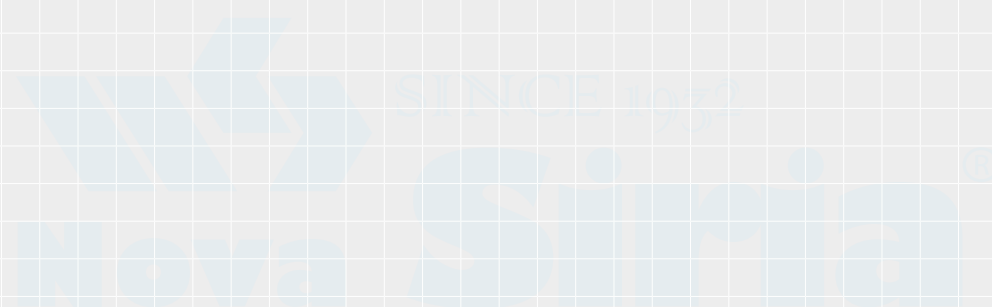
The liners reinforce the section of the pipe intended for the **SMPL/SMFPL** improving the overall performance of the end restraint system.



Ø PE pipe	SDR 11		SDR 17	
	Øi	L	Øi	L
63	51,4	175	55,4	175
75	61,4		66,0	
90	73,6		79,2	
110	90,0		96,8	
125	102,2		110,2	
140	114,6	200	123,4	200
160	130,8		141,0	
180	147,2		158,6	
200	163,6	225	176,2	225
225	184,0		197,4	
250	204,6		221,2	
280	229,2		246,8	
315	257,8		277,6	

The data concerning the min. and max. gap is calculated on the minimum outside diameter of the product's range

Notes



Special products

Stepped couplings

For connections between OD > 288mm pipes of different materials and whenever the diameter difference is bigger than the standard tolerance.

Up to DN 2000 PN 25. Bigger sizes and higher pressure ratings are available upon request.



Stepped Largesize

For pipe OD differences up to 39 mm



Stepped Largesize

For pipe OD differences bigger than 40 mm



Stepped Multigrip

Stepped version, for connection of pipes in PE, PVC, steel and cast iron, whenever the diameter difference is bigger than the standard tolerance. End restraint fittings, used whenever the axial thrust of pressure has to be compensated.

Up to DN 2000 and bigger. PN 6 - PN 25.



Cip Joint

Tailor made product for perfect fit with the CIPP. Well proven pipe locking system and multi - material end restraint system. Separate sealing and end restraint and resistant to corrosion. Only one restraint connection needed and different connection systems available (rotatable flange, fixed flange, spigot end, etc). All inner – and outer diameters from DN 300 – DN 1500 available. Special solutions for inner - and outer - diameters from DN 300 to DN 1200 available. other dimensions on request. Fast and easy installation.

Special products



Stepped couplings

For connections between O.D. > 288mm pipes of different materials and whenever the diameter difference is bigger than the standard tolerance.



End restraint bend With adaptable sockets

Steel elbow with adaptable sockets; it is possible to adapt the elbow (of the angle required) with smooth calibrated end for jointing of bell pipes or flanged pipes (with any flange drilling).



Novagrip

NOVAGRIP is an innovative connection technology between rehabilitating polyethylene liner ends. When the existing pipeline rehabilitation is realized with a thin-walled plastic pipe, a combination of a reinforcing liner ring and a NOVAGRIP style set of grippers provide the best way to connect the rehabilitated pipeline and other equipment or between sections of rehabilitated pipeline. A tailor-made set of grippers ensure that the rehabilitating liner is restraint, in order to avoid its movement inside the main pipe. A double gasket – one on the liner and one on the host pipe – ensure the total water-tightness both inside and outside, thus preventing any fluid getting in between the host pipe and its plastic liner.



Tee with adaptable Sockets and flange tapping

A steel tee with adaptable sockets; the tee with smooth calibrated ends can be used to join sockets or flanged ends or flanged pipes (with any flange drilling).

Special products

Hot tapping collars



90° Flanged collar

Flanged two-part hot tapping collar for pressure pipes of any material (PE, PVC, cast iron, steel); the collar can be manufactured for any flange drilling.



45° Flanged collar

Flanged two-part hot tapping collar for pressure pipes of any material (PE, PVC, cast iron, steel); the collar can be manufactured for any flange drilling.



Collar with Coupling branch

It is a hot tapping collar in two sections with the branch having 30 mm range for the connection of pressure pipes of any material (PE, PVC, ductile iron, steel), with pipe OD within the tolerance range.



90° Threaded collar

Threaded two-part hot tapping collar for pressure pipes of any type of material (PE, PVC, cast iron, steel); the collar can be manufactured for any type of thread.

Technical characteristics

- Material: carbon steel;
- RILSAN NYLON 11 anti-corrosion coating;
- Pressure 10 - 16 bar; other pressures on request;
- Zinc coated bolts, alternatively A2-AISI 304 stainless steel;
- NBR or EPDM gaskets;

Special products



Jolly Joint

The JOLLY JOINT meets the need to combine several functions in a single joint:

- dismantling joint
- linear compensation joint



Wideflex

WIDEFLEX is a simple, easy to install angular compensation joint that can be used in a wide range of applications on pressure pipes or gravity flow installations whenever it is necessary to compensate settlements of the ground or of the pipeline.



Anti-leak clamp

It provides the repairing of live pipelines without shutting down the service on:

- asbestos cement pipe sockets
- cast or ductile iron sockets or couplings
- GRP and steel pipe sockets



End restraint clamp

The mechanical locking system "Pipe locking system", which consists of radial grippers "Pipe locking system" allows to eliminate the axial movement at the sealing gasket points of the pipe on:

- socket or coupling of cast/ductile iron pipes
- socket of steel pipes

Case studies

DUOFIT

Country: Italy

Plant: main aqueduct

Coupling: Duofit ND 2500

Repairing a leaking clamp installed on a steel clamp



MULTIGRIP

Country: United Kingdom

Plant: drinking water hdpe pipeline

Coupling: Multigrip flange adaptors

Connection of HDPE pipe with flanged valve

Case studies



WIDE RANGE COUPLINGS

Country: Turkey

Plant: Marine pipeline

Coupling: wide range coupling Widesize
Connecting GRP pipes



NOVAGRIP

Country: United Kingdom

Plant: aqueduct

Coupling: relining fitting - Novagrip
Waterworks rehabilitation



Case studies



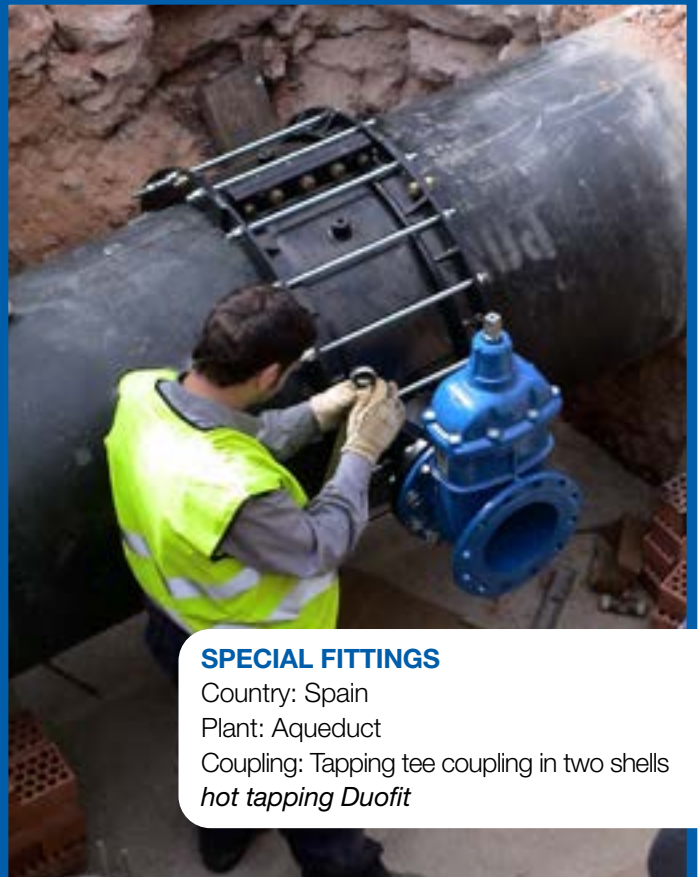
SPECIAL FITTINGS

Country: Italy

Plant: Water Treatment Plant

Coupling: Special branch and Hawle valves

Replacement of valves of water treatment plant



SPECIAL FITTINGS

Country: Spain

Plant: Aqueduct

Coupling: Tapping tee coupling in two shells
hot tapping Duofit

Case studies

DUOFIT

Contry: Finland

Plant: Aqueduct

Coupling: Duofit D30

Repairing of a leaking soket



MULTIGRIP

Country: Belgium

Plant: Aqueduct

Coupling: DN 900 end restraint Multigrip
flange adaptor

Connection with DN 900 cast iron pipes

Case studies

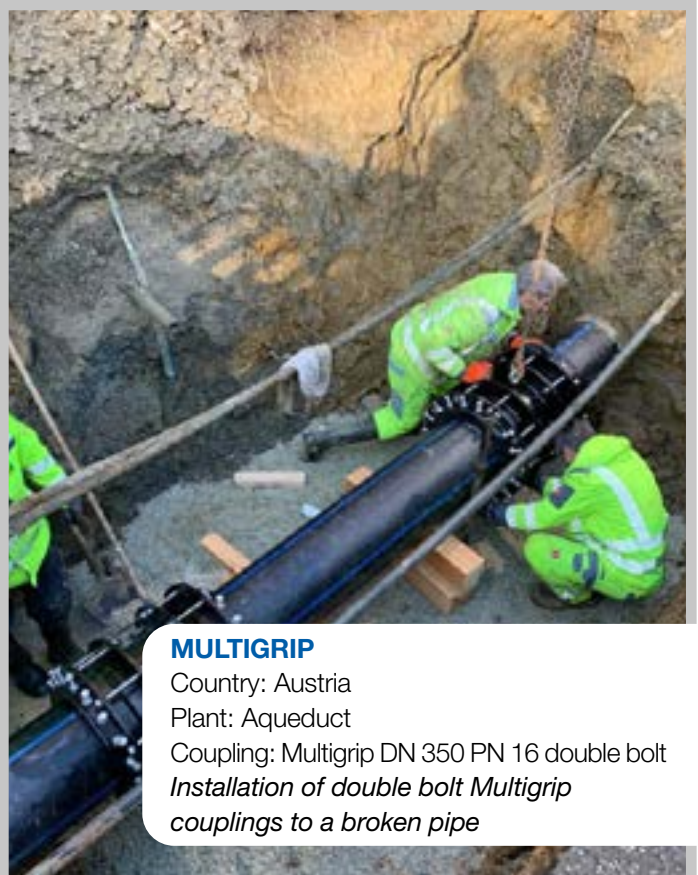
FLANGE ADAPTOR

Country: Turkey

Plant: Aqueduct

Coupling: DN 1600 PN 16 flange adaptor

Flange adaptors used instead of dismantling joint



MULTIGRIP

Country: Austria

Plant: Aqueduct

Coupling: Multigrip DN 350 PN 16 double bolt

Installation of double bolt Multigrip couplings to a broken pipe

Case studies



MULTIGRIP & LARGESIZE COUPLINGS

Country: Neederland

Plant: Aqueduct

Coupling: DN 900 Multigrip (restraint)
and Largesize (non-restraint)

Installation of Multigrips and Largesize couplings



CIP JOINT

Coutry: Spain

Plant: Aqueduct

Coupling: Cip-Joint coupling

*Installation of Cip-Joint coupling to connect two pipe
ends rehabilitated with CIPP trenchless technology*

Case studies

DUOFIT

Country: Oman

Plant: Aqueduct

Coupling: Duofit straight – long version – 2000 mm

Installation of a DN 900 Duofit straight for repairing



MULTIGRIP

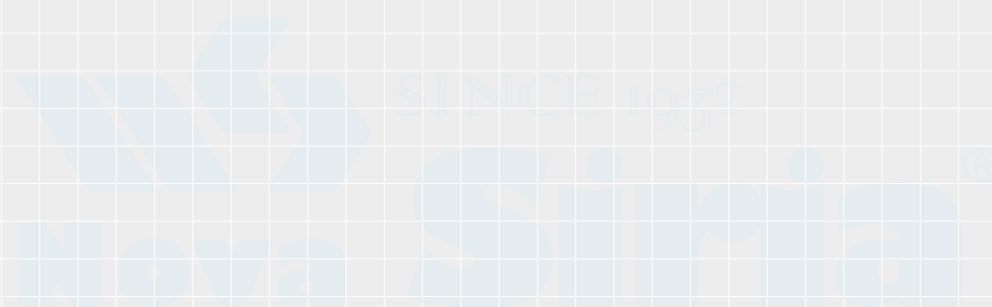
Country: Russia

Plant: Aqueduct

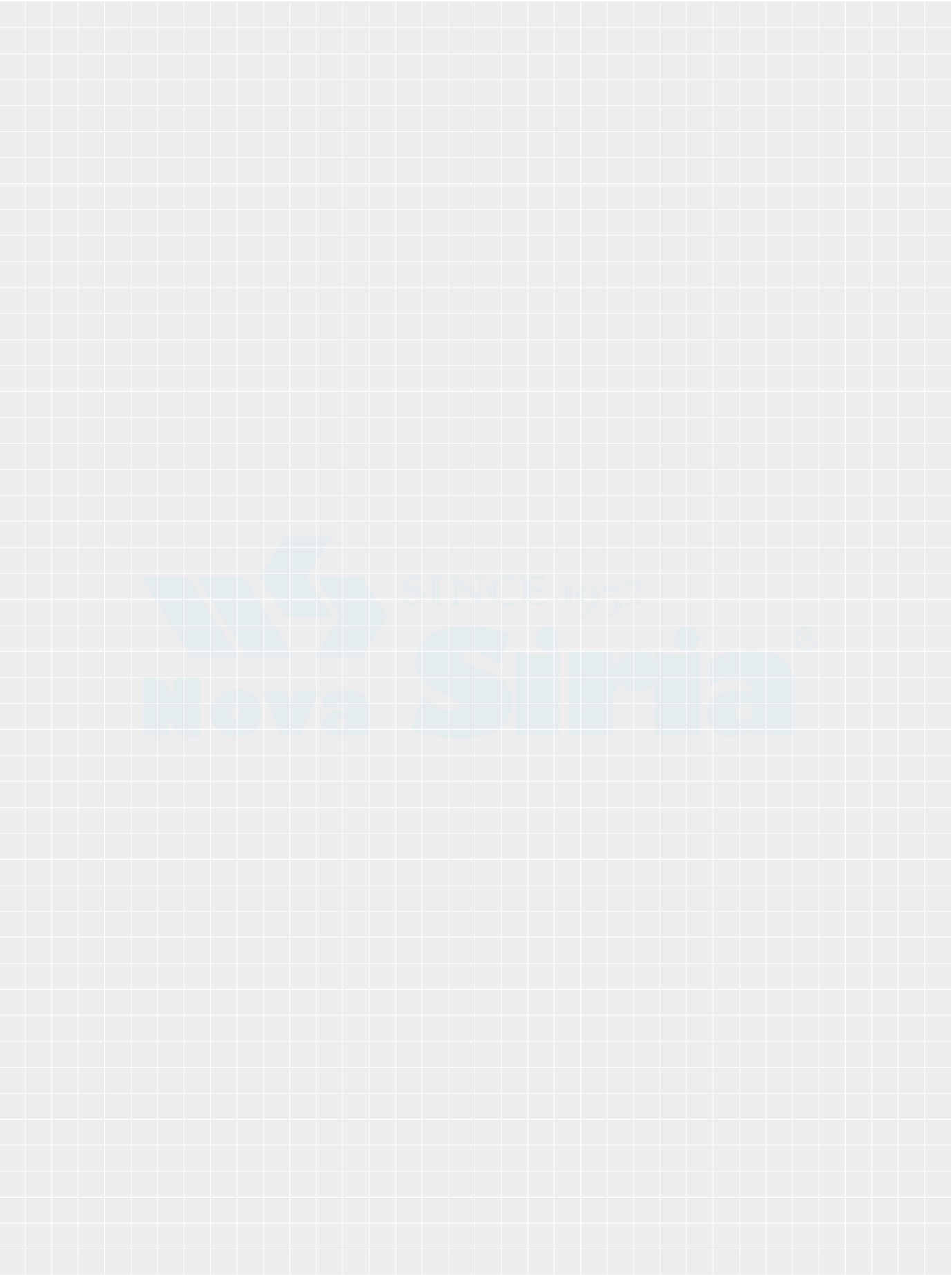
Coupling: Multigrip DN 1200 PN 10

Installation of Multigrip DN 1200 PN 10 for connection

Notes



Notes





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