

COUPLINGS



Couplings

The components of the process plants in borosilicate glass 3.3, are connected between them by means of flanges made of plastic or metal material. For pipes up to DN300 are built in a single piece while for pipes or components with a larger diameter are used metallic half flanges, joined together by screws.

Both flanges are assembled with the glass equipment with the aid of intermediate inserts that vary in shape depending on the size of the flange.

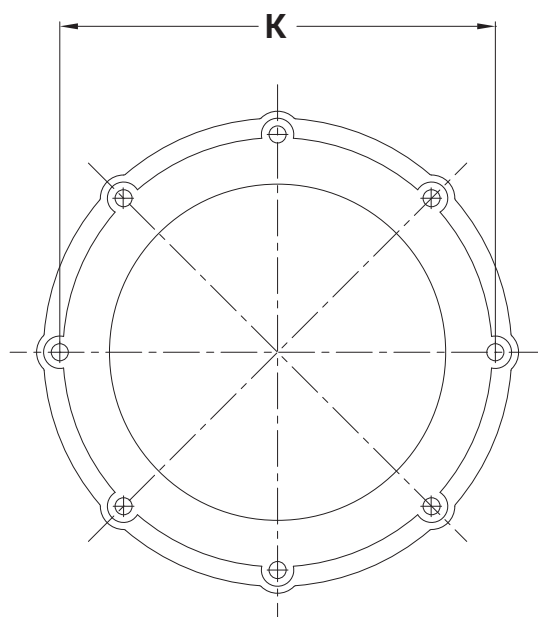
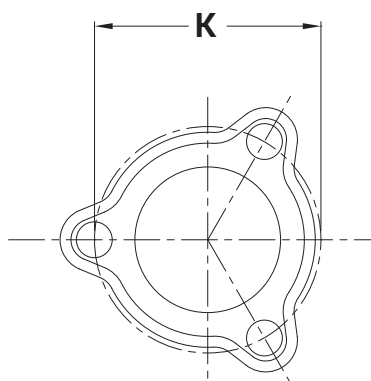
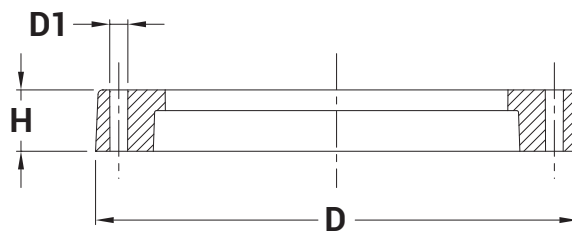
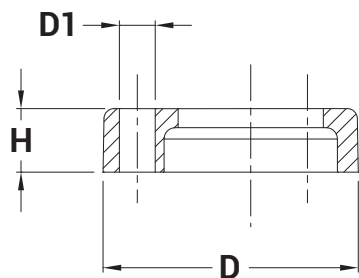
Among the contact surfaces and for the sealing between the various glass components are normally inserted sealing ring with centering collar in PTFE.

This chapter of the catalog covers not only the necessary couplings to join glass equipment and pipeline components together, but also the couplings needed to join borosilicate glass 3.3 to another materials.



Soffieria Sestese may alter detail specifications at its discretion and without notice, in line with its policy of continuous development.

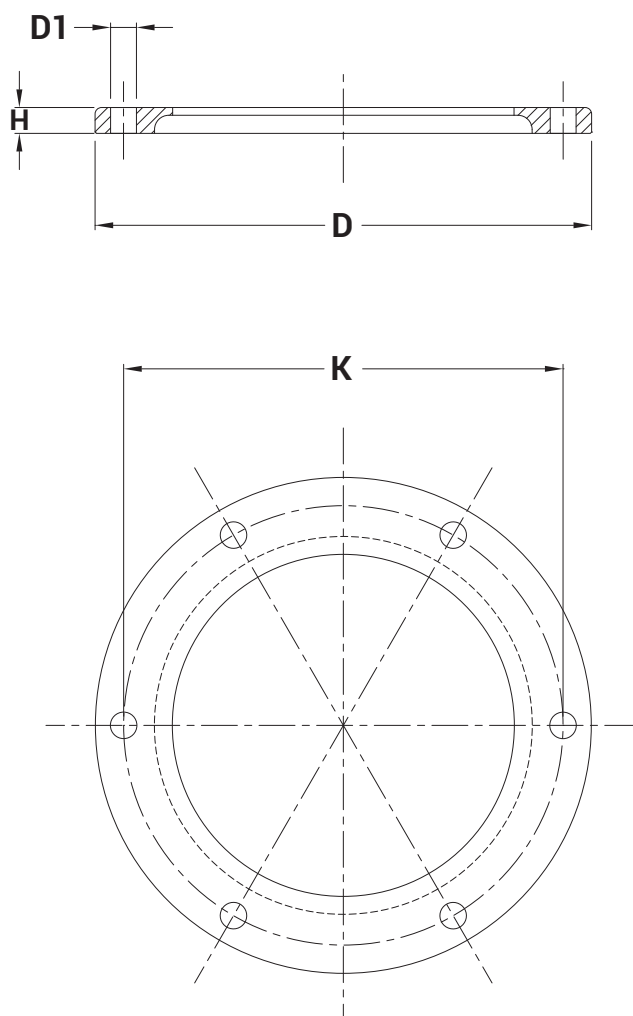
Plastic flanges



DN	D	K	NxD1	H	CODE
15	64	50	3xØ7	13	SSCHE015/K
25	105	85	4xØ9.5	17	SSCHD025/K
40	132	110	4xØ9.5	20	SSCHD040/K
50	147	125	4xØ9.5	24	SSCHD050/K
80	184	160	8xØ9.5	28	SSCHD080/K
100	204	180	8xØ9.5	28	SSCHD100/K
150	265	240	8xØ9.5	34	SSCHD150/K
200	321	295	8xØ9.5	34	SSCHD200/K
300	428	400	12xØ9.5	35	SSCHD300/K



Aluminium and stainless steel flanges



Aluminium flanges

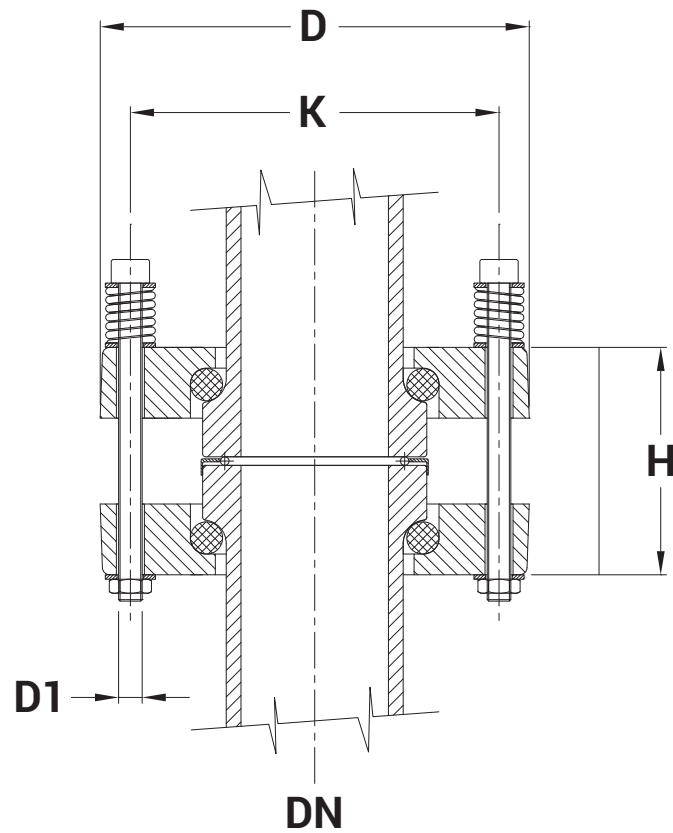
DN	D	K	NxD1	H	CODE
15	64	50	3xØ7	11	SCFM015S
25	92	75	3xØ9.5	15	SCFM025S
40	118	100	3xØ9.5	17	SCFM040S
50	127	110	3xØ9.5	17	SCFM050S
80	172	150	6xØ9.5	24	SCFM080S
100	192	170	6xØ9.5	24	SCFM100S
150	247	225	8xØ9.5	24	SCFM150S
200	307	280	8xØ9.5	33	SCFM200S
300	425	395	12xØ9.5	38	SCFM300S
400	525	495	16xØ9.5	40	SCFM400S
450	615	585	16xØ9.5	40	SCFM450S
600	755	710	20xØ15	50	SCFM600S

Stainless steel flanges

DN	D	K	NXD1	H	CODE
15	64	50	3xØ7	8	SCFAI015S
25	92	75	3xØ9.5	10	SCFAI025S
40	118	100	3xØ9.5	13	SCFAI040S
50	131	110	3xØ9.5	13	SCFAI050S
80	172	150	6xØ9.5	14	SCFAI080S
100	192	170	6xØ9.5	14	SCFAI100S
150	247	225	8xØ9.5	16	SCFAI150S
200	307	280	8xØ9.5	16	SCFAI200S
300	425	395	12xØ9.5	16	SCFAI300S
400	525	495	16xØ9.5	16	SCFAI400S
450	615	585	16xØ9.5	16	SCFAI450S
600	755	710	20xØ15	16	SCFAI600S



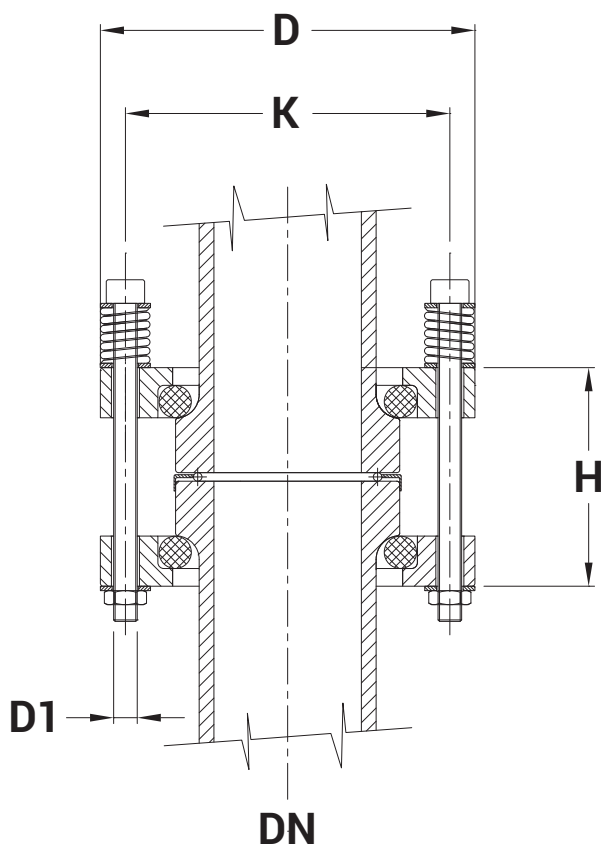
Coupling plastic flanges with inserts, bolts and nuts in stainless steel



DN	D	K	NxD1	H	CODE
15	64	50	3xØ7	50	SSVER015/K
25	105	85	4xØ9.5	58	SSVED025/K
40	132	110	4xØ9.5	72	SSVED040/K
50	147	125	4xØ9.5	86	SSVED050/K
80	184	160	8xØ9.5	110	SSVED080/K
100	204	180	8xØ9.5	115	SSVED100/K
150	265	240	8xØ9.5	115	SSVED150/K
200	322	297	8xØ9.5	115	SSVED200/K
300	428	400	12xØ9.5	120	SSVED300/K



Coupling metallic flanges with inserts, bolts and nuts in stainless steel



Aluminium flanges

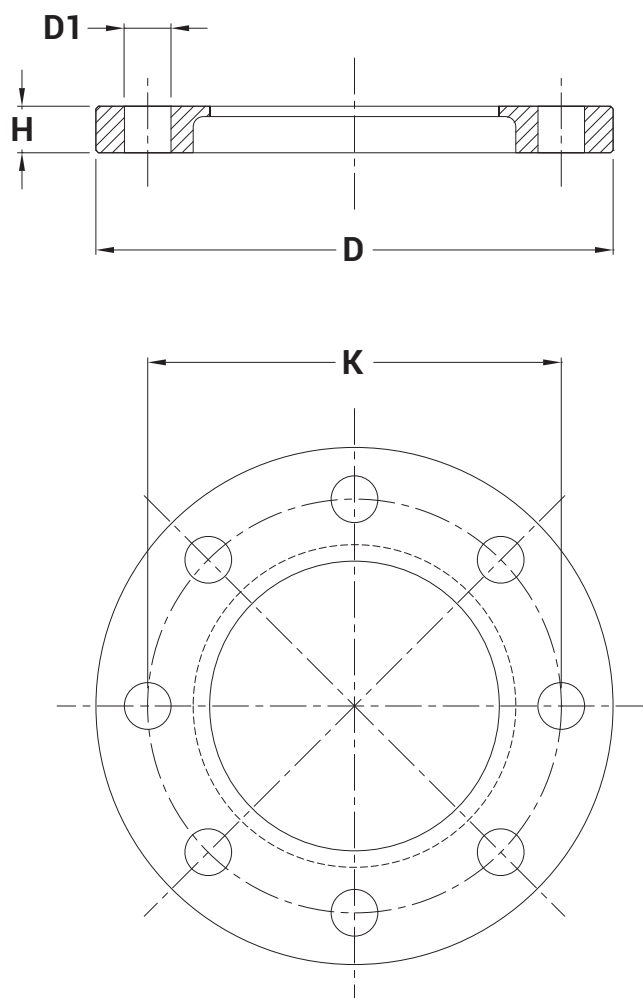
DN	D	K	NxD1	H	CODE
15	64	50	3xØ7	44	SCFCM015S
25	92	75	3xØ9.5	50	SCFCM025S
40	118	100	3xØ9.5	65	SCFCM040S
50	127	110	3xØ9.5	70	SCFCM050S
80	172	150	6xØ9.5	92	SCFCM080S
100	192	170	6xØ9.5	95	SCFCM100S
150	247	225	8xØ9.5	100	SCFCM150S
200	307	280	8xØ9.5	105	SCFCM200S
300	425	395	12xØ9.5	110	SCFCM300S
400	525	495	16xØ9.5	135	SCFCM400S
450	615	585	16xØ9.5	140	SCFCM450S
600	755	710	20xØ15	180	SCFCM600S

Stainless steel flanges

DN	D	K	NXD1	H	CODE
15	64	50	3xØ7	38	SCFCAI015S
25	92	75	3xØ9.5	40	SCFCAI025S
40	118	100	3xØ9.5	57	SCFCAI040S
50	131	110	3xØ9.5	62	SCFCAI050S
80	172	150	6xØ9.5	72	SCFCAI080S
100	192	170	6xØ9.5	75	SCFCAI100S
150	247	225	8xØ9.5	80	SCFCAI150S
200	307	280	8xØ9.5	80	SCFCAI200S
300	425	395	12xØ9.5	80	SCFCAI300S
400	525	495	16xØ9.5	80	SCFCAI400S
450	615	585	16xØ9.5	80	SCFCAI450S
600	755	710	20xØ15	80	SCFCAI600S



Aluminium and stainless steel flanges UNI PN10



Aluminium flanges

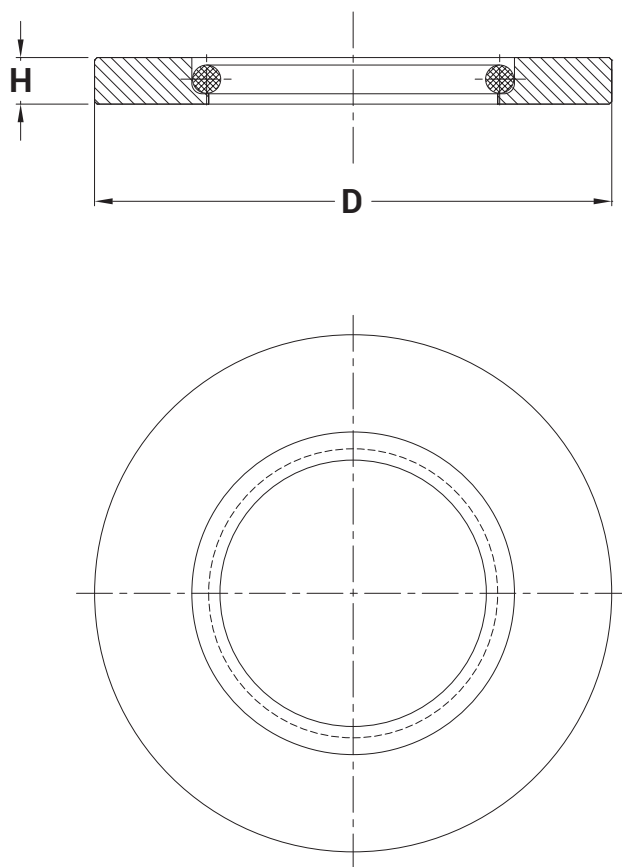
DN	D	K	NxD1	H	CODE
15	95	65	4xØ7	12	SPNM015S
25	115	85	4xØ9	12	SPNM025S
40	150	110	4xØ9	16	SPNM040S
50	165	125	4xØ9	16	SPNM050S
80	200	160	8xØ9	18	SPNM080S
100	220	180	8xØ9	18	SPNM100S
150	285	240	8xØ9	18	SPNM150S
200	340	295	8xØ11	18	SPNM200S
300	445	400	12xØ11	18	SPNM300S

Stainless steel flanges

DN	D	K	NXD1	H	CODE
15	95	65	4xØ7	12	SPNAI015S
25	115	85	4xØ9	12	SPNAI025S
40	150	110	4xØ9	16	SPNAI040S
50	165	125	4xØ9	16	SPNAI050S
80	200	160	8xØ9	18	SPNAI080S
100	220	180	8xØ9	18	SPNAI100S
150	285	240	8xØ9	18	SPNAI150S
200	340	295	8xØ11	18	SPNAI200S
300	445	400	12xØ11	18	SPNAI300S



Undrilled adaptor flanges with inserts



Undrilled flanges in aluminium, with insert

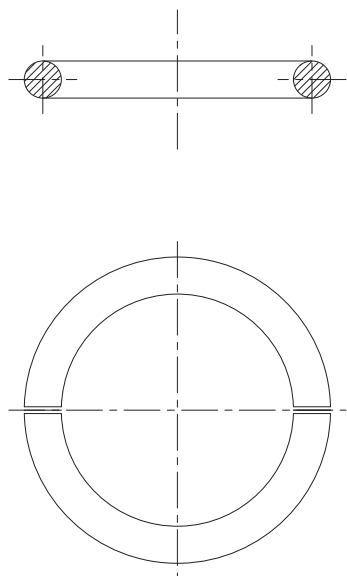
DN	D	H	FLANGE	INSERT	CODE
15	95	12	1 x SANSC015	1 x SBEIL015K	SAVER015
25	115	12	1 x SANSC025	1 x SBEIL025K	SAVER025
40	150	16	1 x SANSC040	1 x SBEIL040K	SAVER040
50	165	16	1 x SANSC050	1 x SBEIL050K	SAVER050
80	200	18	1 x SANSC080	1 x SBEIL080K	SAVER080
100	220	18	1 x SANSC100	1 x SBEIL100K	SAVER100
150	285	18	1 x SANSC150	1 x SBEIL150AS	SAVER150
200	340	20	1 x SANSC200	1 x SBEIL200AS	SAVER200
300	460	22	1 x SANSC300	1 x SBEIL300AS	SAVER300

Undrilled stainless steel flanges with insert

DN	D	H	FLANGE	INSERT	CODE
15	95	12	1 x SANSC015AI	1 x SBEIL015K	SAVER015AI
25	115	12	1 x SANSC025AI	1 x SBEIL025K	SAVER025AI
40	150	16	1 x SANSC040AI	1 x SBEIL040K	SAVER040AI
50	165	16	1 x SANSC050AI	1 x SBEIL050K	SAVER050AI
80	200	18	1 x SANSC080AI	1 x SBEIL080K	SAVER080AI
100	220	18	1 x SANSC100AI	1 x SBEIL100K	SAVER100AI
150	285	18	1 x SANSC150AI	1 x SBEIL150AS	SAVER150AI
200	340	20	1 x SANSC200AI	1 x SBEIL200AS	SAVER200AI
300	460	22	1 x SANSC300AI	1 x SBEIL300AS	SAVER300AI



Plastic inserts

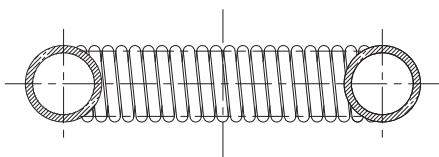
DN

DN	CODE
15	SBEIL015K
25	SBEIL025K
40	SBEIL040K
50	SBEIL050K
80	SBEIL080K
100	SBEIL100K
150	SBEIL150K
200	SBEIL200K
300	SBEIL300K

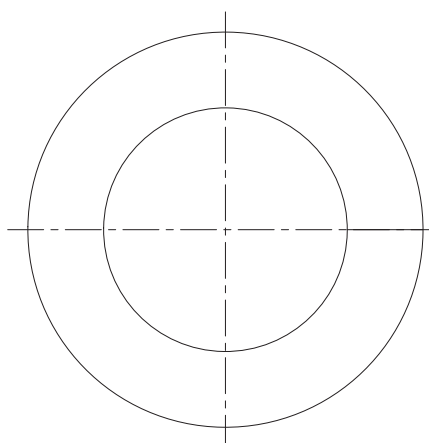
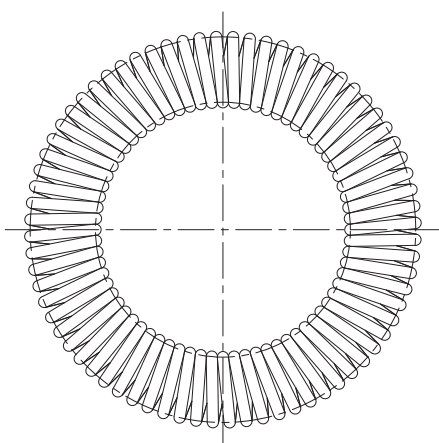
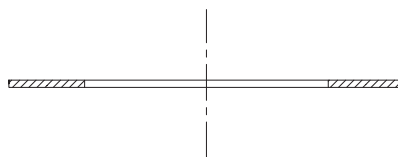


Spring inserts in stainless steel and asbestos free inserts

DN



DN



Spring inserts in stainless steel

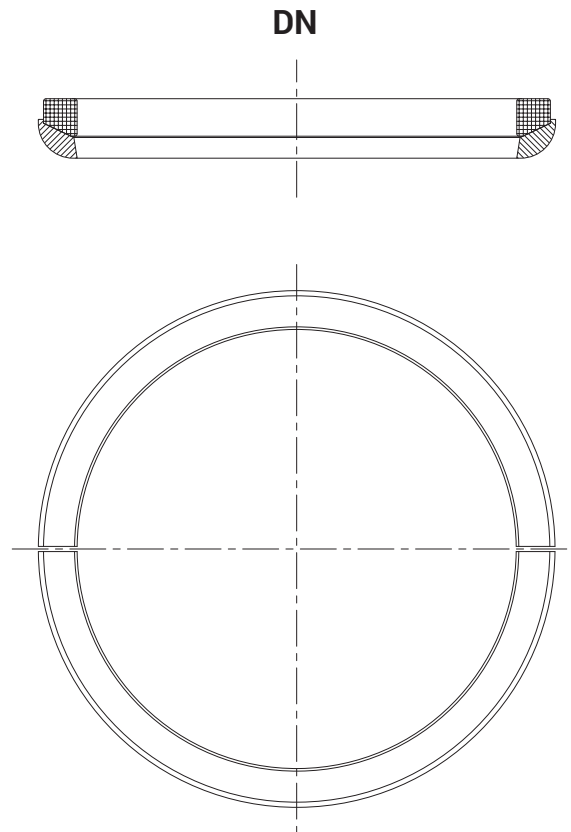
DN	CODE
15	SBEIL015/S
25	SBEIL025/S
40	SBEIL040/S
50	SBEIL050/S
80	SBEIL080/S
100	SBEIL100/S

Inserts asbestos free

DN	CODE
15	SUNLA015
25	SUNLA025
40	SUNLA040
50	SUNLA050
80	SUNLA080
100	SUNLA100



Aluminium inserts and packing spare part for flanges



Aluminium inserts with packing

DN	CODE
150	SBEIL150AS
200	SBEIL200AS
300	SBEIL300AS

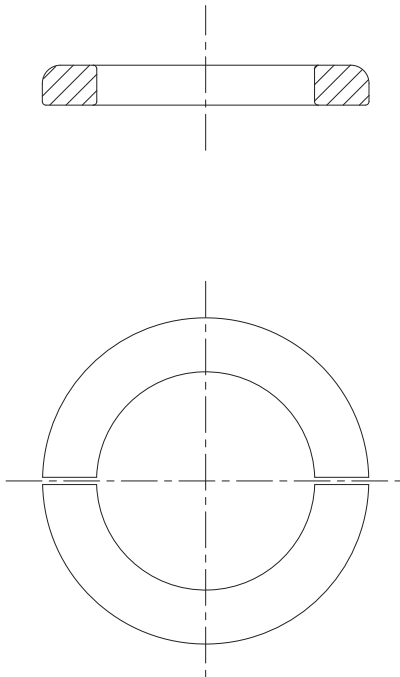
Packing spare parts for flanges

DN	CODE
150	SBEIL150A
200	SBEIL200A
300	SBEIL300A
400	SBEIL400A
450	SBEIL450A
600	SBEIL600A

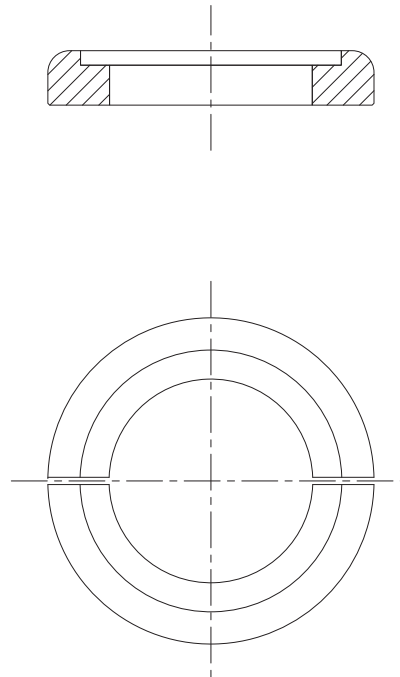


Aluminium rings for bellow

DN



DN



Aluminium rings for plastic flanges

DN	CODE
40	SCNME040SH
50	SCNME050SH
80	SCNME080SH
100	SCNME100SH
150	SCNME150SH
200	SCNME200SH
300	SCNME300SH

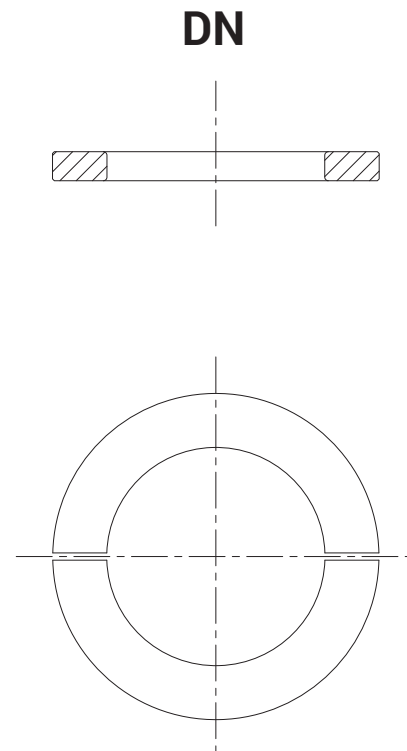
Aluminium rings for aluminium flanges

DN	CODE
15	SCNME015S
25	SCNME025S
40	SCNME040S
50	SCNME050S
80	SCNME080S
100	SCNME100S
150	SCNME150S
200	SCNME200S
300	SCNME300S



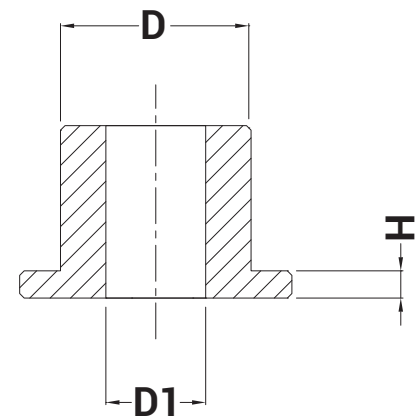
Stainless steel rings for bellow flanges

DN	CODE
15	SCNAI015S
25	SCNAI025S
40	SCNAI040S
50	SCNAI050S
80	SCNAI080S
100	SCNAI100S
150	SCNAI150S
200	SCNAI200S
300	SCNAI300S



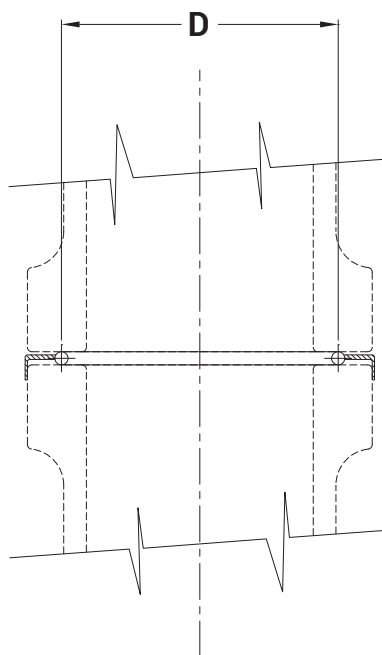
Reducing washers in stainless steel

TO USE WITH DN	D	D1	H	CODE
15 - 25	13	9	3	SDSCH14x10/4301
40 - 50 - 80 - 100	17	10	3	SDSCH18x10/4301
150 - 200 - 300	21	11	3	SDSCH22x10/4301



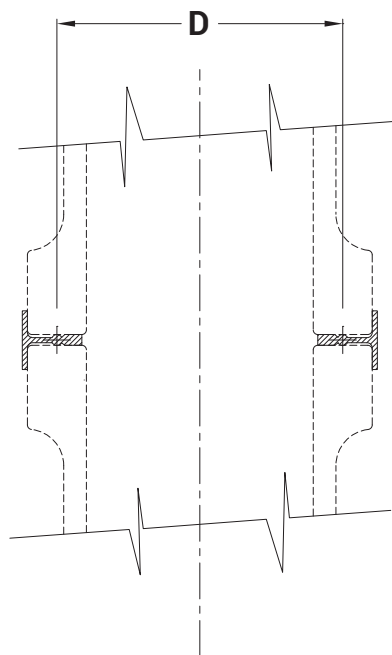
PTFE "O-ring" gaskets

DN	D	CODE
15	22	SGA015S
25	34	SGA025S
40	48	SGA040S
50	61	SGA050S
80	88	SGA080S
100	120	SGA100S
150	172	SGA150S
200	220	SGA200S
300	321	SGA300S
400	450	SDICH400/TG
450	480	SDICH450/TG
600	638	SDICH600/TG



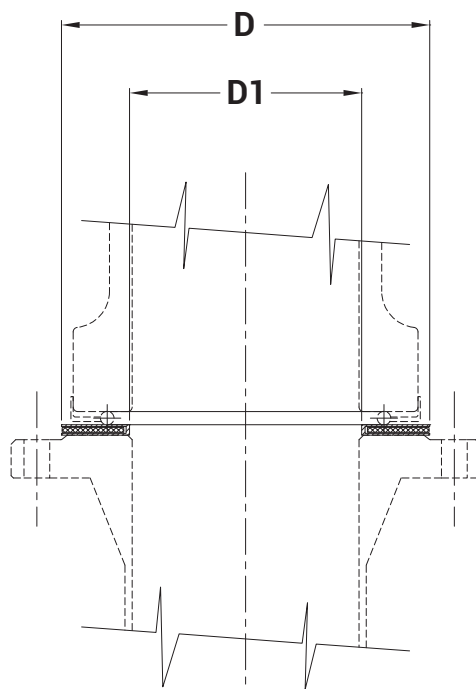
GMP compliant gaskets

DN	D	CODE
15	22	SGA015/GMP
25	34	SGA025/GMP
40	48	SGA040/GMP
50	61	SGA050/GMP
80	88	SGA080/GMP
100	120	SGA100/GMP
150	172	SGA150/GMP
200	220	SGA200/GMP
300	321	SGA300/GMP



Flat gaskets

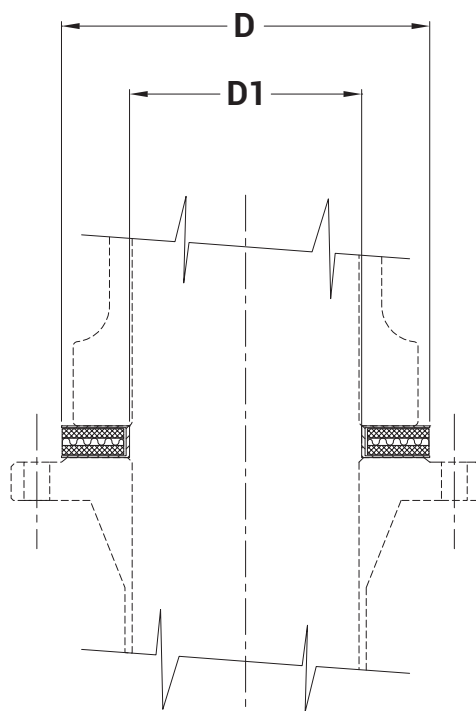
DN	D	D1	CODE
15	32	16	SGB015
25	48	25	SGB025
40	65	40	SGB040
50	80	50	SGB050
80	120	80	SGB080
100	132	102	SGB100
150	190	152	SGB150
200	240	200	SGB200
300	350	300	SGB300
400	470	400	SGB400
450	535	450	SGB450
600	684	610	SGB600



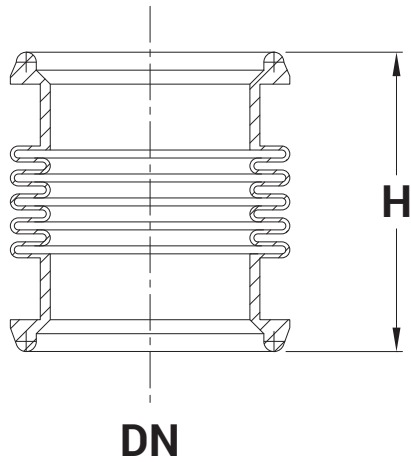
PTFE envelope gaskets for Glass-Lined

DN	D	D1	CODE
15	50	20	SPDR015
25	70	30	SPDR025
40	92	45	SPDR040
50	107	57	SPDR050
80	142	89	SPDR080
100	162	108	SPDR100
150	218	159	SPDR150
200	273	216	SPDR200
300	378	305	SPDR300

The gasket thickness is 7 mm for all shown measures
Others dimensions available on request



Standard and reduced bellows in PTFE



Standard bellows

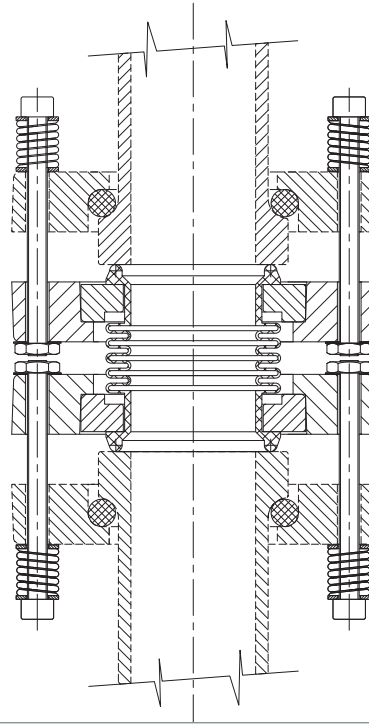
DN	H	CODE
15	65	SFALD015/U - L65
25	65	SFALD025/U - L65
40	75	SFALD040/U - L75
50	75	SFALD050/U - L75
80	75	SFALD080/U - L75
100	75	SFALD100/U - L75
150	90	SFALD150/U - L90
200	100	SFALD200/U - L100
300	130	SFALD300/U - L130

Reduced bellows

DN	H	CODE
25/15	50	SFB/R25-15E
40/15	50	SFB/R40-15E
40/25	50	SFB/R40-25E
50/15	50	SFB/R50-15E
50/25	50	SFB/R25-25E
50/40	50	SFB/R50-40E



Bellows for connecting glass to glass



Glass to glass bellows with plastic flanges

DN	PTFE BELLOW	FLANGE	INSERT	HOLES	BOLTS	NUTS	WASHERS	CODE
15	1 x SFALD015/U-L65	2 x SSCHE015/K	2 x SCNME015S	3	3xM6x45	3xM6	6xØ6	SFBNPL015S
25	1 x SFALD025/U-L65	2 x SSCHD025/K	2 x SCNME025S	4	4xM8x55	4xM8	8xØ8	SFBNPL025S
40	1 x SFALD040/U-L70	2 x SSCHD040/K	2 x SCNME040SH	4	4xM8x70	4xM8	8xØ8	SFBNPL040S
50	1 x SFALD050/U-L75	2 x SSCHD050/K	2 x SCNME050SH	4	4xM8x80	4xM8	8xØ8	SFBNPL050S
80	1 x SFALD080/U-L75	2 x SSCHD080/K	2 x SCNME080SH	8	4xM8x90	8xM8	16xØ8	SFBNPL080S
100	1 x SFALD100/U-L75	2 x SSCHD100/K	2 x SCNME100SH	8	8xM8x100	8xM8	16xØ8	SFBNPL100S
150	1 x SFALD150/U-L90	2 x SSCHD150/K	2 x SCNME150SH	8	8xM8x100	8xM8	16xØ8	SFBNPL150S
200	1 x SFALD200/U-L100	2 x SSCHD200/K	2 x SCNME200SH	8	8xM8x100	8xM8	16xØ8	SFBNPL200S
300	1 x SFALD300/U-L130	2 x SSCHD300/K	2 x SCNME300SH	12	12xM8x120	12xM8	24xØ8	SFBNPL300S

Glass to glass bellows with aluminium flanges

DN	PTFE BELLOW	FLANGE	INSERT	HOLES	BOLTS	NUTS	WASHERS	CODE
15	1 x SFALD015/U-L65	2 x SCFM015S	2 x SCNME015S	3	3xM6x50	3xM6	6xØ6	SFBNM015S
25	1 x SFALD025/U-L65	2 x SCFM025S	2 x SCNME025S	3	3xM8x60	3xM8	6xØ8	SFBNM025S
40	1 x SFALD040/U-L70	2 x SCFM040S	2 x SCNME040S	3	3xM8x70	3xM8	6xØ8	SFBNM040S
50	1 x SFALD050/U-L75	2 x SCFM050S	2 x SCNME050S	3	3xM8x70	3xM8	6xØ8	SFBNM050S
80	1 x SFALD080/U-L75	2 x SCFM080S	2 x SCNME080S	6	6xM8x100	6xM8	12xØ8	SFBNM080S
100	1 x SFALD100/U-L75	2 x SCFM100S	2 x SCNME100S	6	6xM8x90	6xM8	12xØ8	SFBNM100S
150	1 x SFALD150/U-L90	2 x SCFM150S	2 x SCNME150S	8	8xM8x90	8xM8	16xØ8	SFBNM150S
200	1 x SFALD200/U-L100	2 x SCFM200S	2 x SCNME200S	8	8xM8x110	8xM8	16xØ8	SFBNM200S
300	1 x SFALD300/U-L130	2 x SCFM300S	2 x SCNME300S	12	12xM8x120	12xM8	24xØ8	SFBNM300S

Glass to glass bellows with stainless steel flanges

DN	PTFE BELLOW	FLANGE	INSERT	HOLES	BOLTS	NUTS	WASHERS	CODE
15	1 x SFALD015/U-L65	2 x SCFAI015S	2 x SCNAI015S	3	3xM6x50	3xM6	6xØ6	SFBNAI015S
25	1 x SFALD025/U-L65	2 x SCFAI025S	2 x SCNAI025S	3	3xM8x60	3xM8	6xØ8	SFBNAI025S
40	1 x SFALD040/U-L70	2 x SCFAI040S	2 x SCNAI040S	3	3xM8x70	3xM8	6xØ8	SFBNAI040S
50	1 x SFALD050/U-L75	2 x SCFAI050S	2 x SCNAI050S	3	3xM8x70	3xM8	6xØ8	SFBNAI050S
80	1 x SFALD080/U-L75	2 x SCFAI080S	2 x SCNAI080S	6	6xM8x100	6xM8	12xØ8	SFBNAI080S
100	1 x SFALD100/U-L75	2 x SCFAI100S	2 x SCNAI100S	6	6xM8x90	6xM8	12xØ8	SFBNAI100S
150	1 x SFALD150/U-L90	2 x SCFAI150S	2 x SCNAI150S	8	8xM8x90	8xM8	16xØ8	SFBNAI150S
200	1 x SFALD200/U-L100	2 x SCFAI200S	2 x SCNAI200S	8	8xM8x110	8xM8	16xØ8	SFBNAI200S
300	1 x SFALD300/U-L130	2 x SCFAI300S	2 x SCNAI300S	12	12xM8x120	12xM8	24xØ8	SFBNAI300S

Bellows for connecting glass to other

Glass to other bellows with plastic flanges

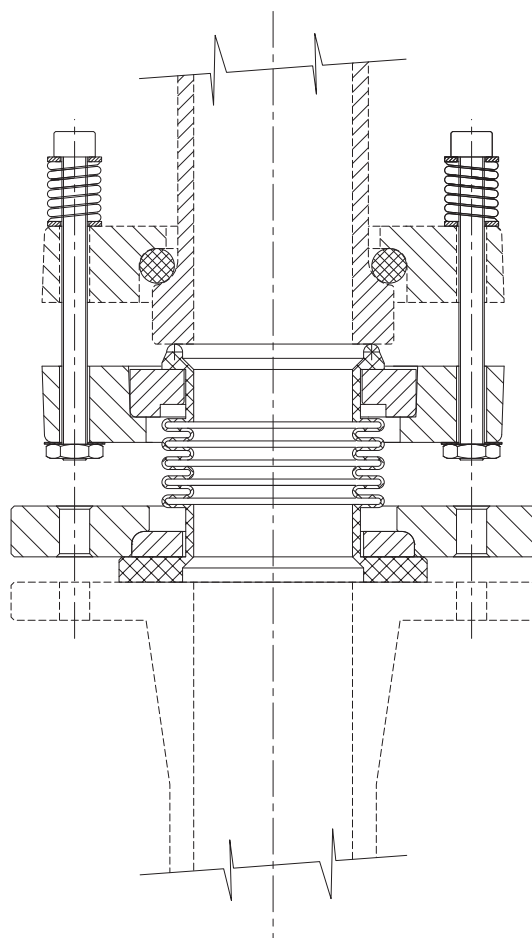
DN	CODE
15	SFBNPL015S/PN10
25	SFBNPL025S/PN10
40	SFBNPL040S/PN10
50	SFBNPL050S/PN10
80	SFBNPL080S/PN10
100	SFBNPL100S/PN10
150	SFBNPL150S/PN10
200	SFBNPL200S/PN10
300	SFBNPL300S/PN10

Glass to other bellows with aluminium flanges

DN	CODE
15	SFBNM015S/PN10
25	SFBNM025S/PN10
40	SFBNM040S/PN10
50	SFBNM050S/PN10
80	SFBNM080S/PN10
100	SFBNM100S/PN10
150	SFBNM150S/PN10
200	SFBNM200S/PN10
300	SFBNM300S/PN10

Glass to other bellows with stainless steel flanges

DN	CODE
15	SFBNAI015S/PN10
25	SFBNAI025S/PN10
40	SFBNAI040S/PN10
50	SFBNAI050S/PN10
80	SFBNAI080S/PN10
100	SFBNAI100S/PN10
150	SFBNAI150S/PN10
200	SFBNAI200S/PN10
300	SFBNAI300S/PN10



Set of bolts and nuts for flanges

Set for plastic flanges

DN	HOLES N°	BOLTS	SPRINGS	NUTS	WASHERS	CODE
15	3	3xM6x60	3xØ6	3xM6	9xØ6	SBCFPL015S
25	4	4xM8x75	4xØ8xH12	4xM8	12xØ8	SBCFPL025S
40	4	4xM8x90	4xØ8xH12	4xM8	12xØ8	SBCFPL040S
50	4	4xM8x100	4xØ8xH12	4xM8	12xØ8	SBCFPL050S
80	8	8xM8x130	8xØ8xH27	8xM8	24xØ8	SBCFPL080S
100	8	8xM8x130	8xØ8xH27	8xM8	24xØ8	SBCFPL100S
150	8	8xM8x140	8xØ8xH27	8xM8	24xØ8	SBCFPL150S
200	8	8xM8x140	8xØ8xH27	8xM8	24xØ8	SBCFPL200S
300	12	12xM8x140	12xØ8xH27	12xM8	36xØ8	SBCFPL300S

Set for aluminium flanges

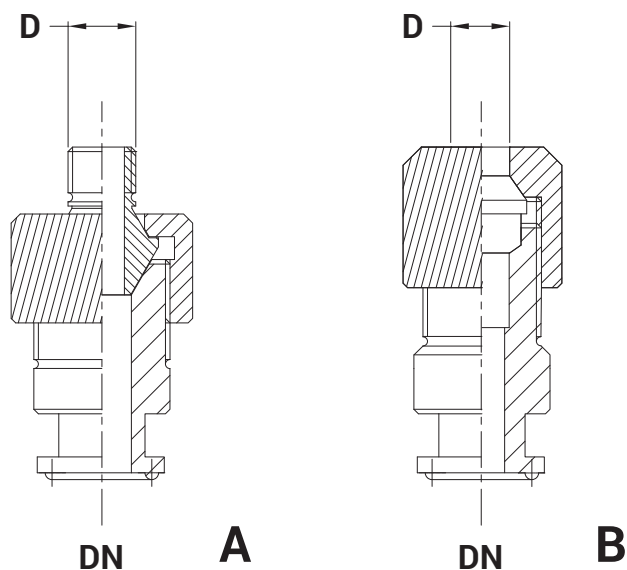
DN	HOLES N°	BOLTS	SPRINGS	NUTS	WASHERS	CODE
15	3	3xM6x65	3xØ6	3xM6	9xØ6	SBCFM015S
25	3	3xM8x75	3xØ8xH12	3xM8	9xØ8	SBCFM025S
40	3	3xM8x90	3xØ8xH12	3xM8	9xØ8	SBCFM040S
50	3	3xM8x100	3xØ8xH12	3xM8	9xØ8	SBCFM050S
80	6	6xM8x130	6xØ8xH27	6xM8	18xØ8	SBCFM080S
100	6	8xM8x130	8xØ8xH27	6xM8	18xØ8	SBCFM100S
150	8	8xM8x140	8xØ8xH27	8xM8	24xØ8	SBCFM150S
200	8	8xM8x140	8xØ8xH27	8xM8	24xØ8	SBCFM200S
300	12	12xM8x140	12xØ8xH27	12xM8	36xØ8	SBCFM300S
400	12	12xM8x195	12xØ8xH27	12xM8	36xØ8	SBCFM400S
450	12	12xM8x195	12xØ8xH27	12xM8	36xØ8	SBCFM450S
600	16	16xM10x240	16xØ10xH27	16xM10	48xØ10	SBCFM600S

Set for stainless steel flanges

DN	HOLES N°	BOLTS	SPRINGS	NUTS	WASHERS	CODE
15	3	3xM6x60	3xØ6	3xM6	9xØ6	SBCFAI015S
25	3	3xM8x75	3xØ8xH12	3xM8	9xØ8	SBCFAI025S
40	3	3xM8x90	3xØ8xH12	3xM8	9xØ8	SBCFAI040S
50	3	3xM8x90	3xØ8xH12	3xM8	9xØ8	SBCFAI050S
80	6	6xM8x120	6xØ8xH27	6xM8	18xØ8	SBCFAI080S
100	6	6xM8x130	6xØ8xH27	6xM8	18xØ8	SBCFAI100S
150	8	6xM8x130	6xØ8xH27	8xM8	24xØ8	SBCFAI150S
200	8	8xM8x130	6xØ8xH27	8xM8	24xØ8	SBCFAI200S
300	12	12xM8x130	12xØ8xH27	12xM8	36xØ8	SBCFAI300S



PTFE rapid connectors



PTFE rapid connectors for corrugate tube

DN	D	TYPE	CODE
15	16	A	SARC015/16
25	16	A	SARC025/16
25	24	A	SARC025/24

Corrugate tube

D	CODE
10	GC100 - 10
14	GC100 - 14
16	GC100 - 16
24	GC100 - 24

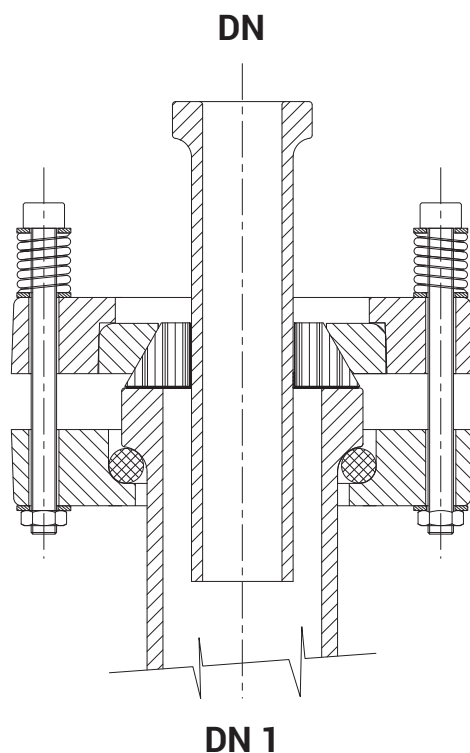
PTFE rapid connectors for smooth tube

DN	D	TYPE	CODE
15	8	B	SAR0015 - 08
15	10	B	SAR0015 - 10
15	12	B	SAR0015 - 12
15	16	B	SAR0015 - 16
25	24	B	SAR0025 - 24

Smooth tube

D INT.	D EXT.	PTFE CODE	PFA CODE
4	6	TU04x06	TU04x06PFA
6	8	TU06x08	TU06x08PFA
8	10	TU08x10	TU08x10PFA
10	12	TU10x12	TU10x12PFA
14	16	TU14x16	TU14x16PFA

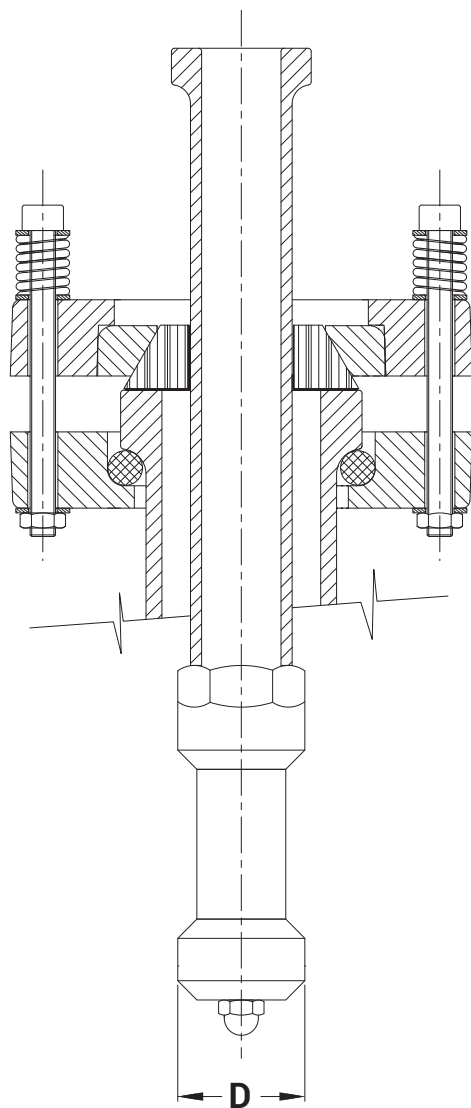
Coulisse connectors



DN	DN1	CODE	CODE	CODE
		Plastic flanges	Aluminium flanges	Stainless steel flanges
15	25	SCOPL25/15S	SCOM25/15S	SCOAI25/15S
25	40	SCOPL40/25S	SCOM40/25S	SCOAI40/25S
25	50	SCOPL50/25S	SCOM50/25S	SCOAI50/25S
40	50	SCOPL50/40S	SCOM50/40S	SCOAI50/40S
50	65	SCOPL50/65S	SCOM50/65S	SCOAI50/65S
50	80	SCOPL80/50S	SCOM80/50S	SCOAI80/50S



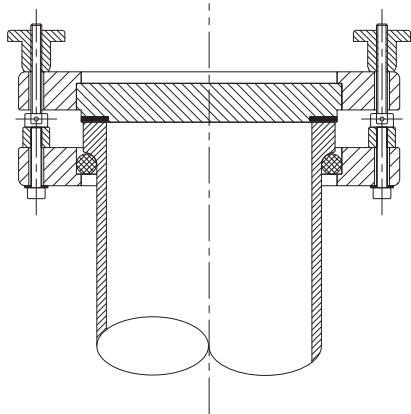
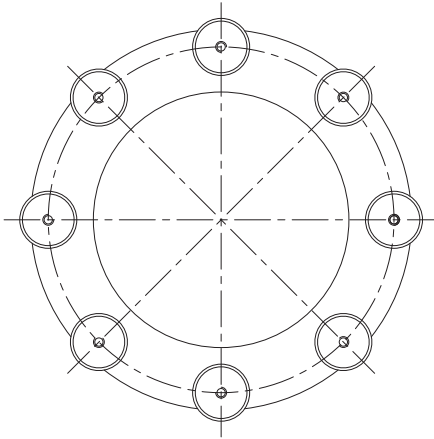
Spray balls



D	SPRAY ANGLE	CONNECTION	FLOW (L/min) WITH Δp AT 2 (bar)	CODE
30	360°	1/2"	13	SSB30
49	360°	3/4"	100	SSB49



Rapid closures

**DN**

DN	CODE Plastic	CODE Aluminium	CODE Stainless steel
40	SC.RAP040	SC.RAP040/ALL	SC.RAP040/AI
50	SC.RAP050	SC.RAP050/ALL	SC.RAP050/AI
80	SC.RAP080	SC.RAP080/ALL	SC.RAP080/AI
100	SC.RAP100	SC.RAP100/ALL	SC.RAP100/AI
150	SC.RAP150	SC.RAP150/ALL	SC.RAP150/AI
200	SC.RAP200	SC.RAP200/ALL	SC.RAP200/AI



