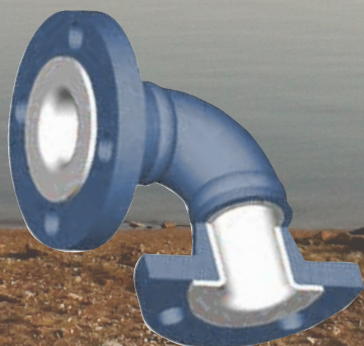
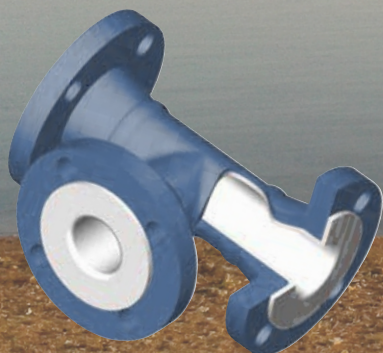
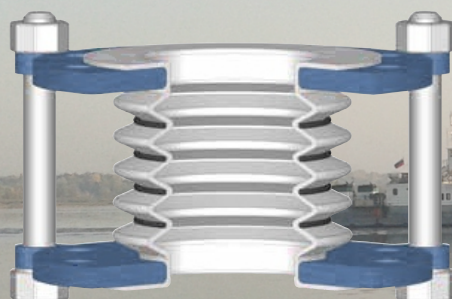
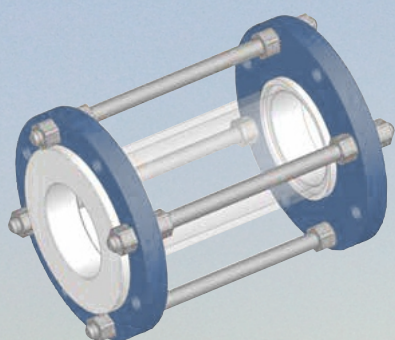




VELLES GROUP Sp. z o.o.

LINED PIPES & FITTINGS

DIN Standard



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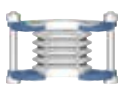


LINED PIPES & FITTINGS

The product	The name of the product	Page No.
	PTFE Lined Pipes	7
	RL Lined Pipes	8
	SL Lined Pipes	9
	Jacketed Lined Pipes	10
	Solid And Lined Spacers	11
	Lined Elbow 90 ⁰	12
	Lined Elbow 45 ⁰	13
	Lined Elbow 60 ⁰	14
	Lined Elbow 30 ⁰	15
	Jacketed Lined Elbows	16
	Lined Equal Tees	17
	Lined Lateral Tees	18
	Lined Equal Cross	19
	Lined Reducing Tees	20-26
	Lined Instrument Tees	27-31
	Lined Manifold	32
	Jacketed Tees & Manifold	33
	Lined Concentric Reducers	34-36

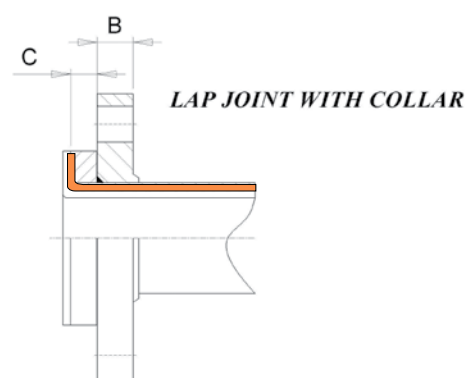
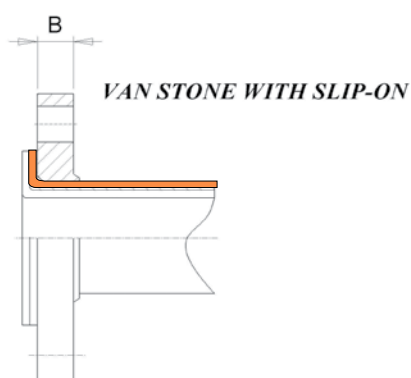
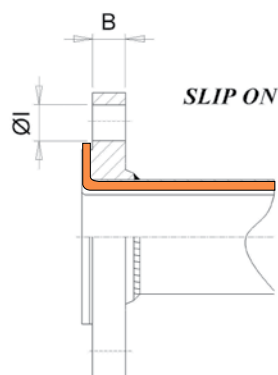
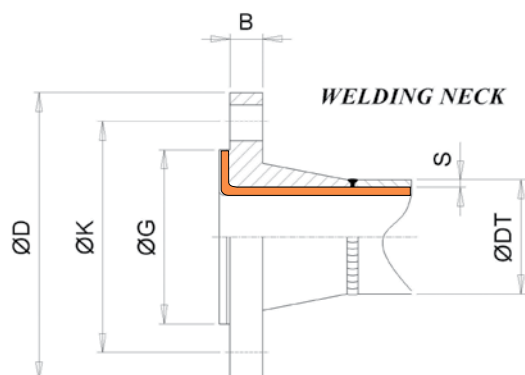


LINED PIPES & FITTINGS

Product	The name of the product	Page No.
	Lined Eccentric Reducers	37-39
	Lined Reducing Flanges	40-43
	Lined Blind Flanges	44
	Nozzle Liner	45
	Lined Dip-Pipe	46
	Lined Dip-Pipe Heavy Duty	47
	Lined Bended Dip-Pipe	48
	Lined Sprager	49
	Bellow Con 1	50
	Bellow Con 2	51
	Bellow Con 3	52
	Bellow Con 5	53
	Lined Sight Glass	54
	Lined Tubular Glass	55
	Lined Spectacle	56
	Lined Spade	57
	Lined Swing Check Value	58



LINED PIPES & FITTINGS



Nom	DT	D	G	I	B	C	S	K
Size	Mm	mm	Mm	i X n	mm	mm	mm	
15	21,3	95	45	14X4	16	10	2.77	65
20	26,7	105	58	14X4	18	12	2.87	75
25	33,4	115	68	14X4	18	12	3.38	85
32	42,2	140	78	18X4	18	12	3.56	100
40	48,3	150	88	18X4	18	12	3.68	110
50	60,3	165	102	18X4	18	14	3.91	125
65	73,0	185	122	18X8	18	14	5.16	145
80	88,9	200	138	18X8	20	16	5.49	160
100	114,3	220	158	18X8	20	16	6.02	180
125	141,3	250	188	18X8	20	18	6.55	210
150	168,3	285	212	22X8	22	18	7.11	240
200	219,1	340	268	22X12	26	20	8.18	295
250	273	405	320	26X12	28	22	9.27	355
300	323,8	460	378	26X12	28	22	9.53	410
350	355,6	520	438	26X16	30	22	9.53	470
400	406,4	580	490	30X16	32	26	9.53	525
450	457,2	640	550	30X24	40	26	9.53	585
500	508	715	610	33X20	44	26	9.53	650
600	609,6	840	725	36X20	54	30	9.53	770



LINED PIPES & FITTINGS

TABLE 3
Vacuum / temperature rating

Liner	Temp	Diameter										
		25	40	50	80	100	150	200	250	300	350	400
PTFE HD	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full			
	100° C	Full	Full	Full	Full	Full	Full					
	150° C	Full	Full	Full	Full	Full						
	200° C	Full	Full	Full	Full							
PTFE SHD	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	100° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	150° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	200° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
PFA HD	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full		
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full		
	100° C	Full	Full	Full	Full	Full	Full					
	150° C	Full	Full	Full	Full	Full						
	200° C	Full	Full	Full	Full							
PFA Roto	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	100° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	150° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	200° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
FEP	20° C	Full	Full	Full								
	50° C	Full	Full	Full								
	100° C	Full	Full	Full								
	150° C	Full	Full	Full								
ETFE Roto	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	100° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	120° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
PVDF HD	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full					
	100° C	Full	Full	Full	Full	Full						
PVDF Roto	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	100° C	Full	Full	Full	Full	Full						
XLPE Roto	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full				
	80° C	Full	Full	Full	Full							
PP HD	20° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	50° C	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full	Full
	80° C	Full	Full	Full	Full	Full	Full	Full				

Please note that sudden changes in pressure (positive and negative), drops frequencies and thermal changes are an influence on the Vacuum resistance of the liner; hence thicker or bonded liner should be considered.



LINED PIPES & FITTINGS

TABLE 4
Ratings for PN10 + PN16 range

Nominal	N° and diameter of bolts	PTFE, PFA, FEP		ETFE , PVDF		XLPE , PP	
Bore		Bolt Torque		Bolt Torque		Bolt Torque	
		Ft/ Lb	N/m	Ft/ Lb	N/m	Ft/ Lb	N/m
DN15-DN20	4 x M12	18	25	26	35	24	33
DN25-DN32	4 x M16	26	35	36	49	34	46
DN40	4 x M16	26	35	36	49	34	46
DN50	4 x M16	44	60	62	84	58	78
DN63	4 x M16	48	65	67	91	62	85
DN80	8 x M16	48	65	67	91	62	85
DN100	8 x M16	52	70	72	98	67	91
DN125	8 x M16	70	95	98	133	91	124
DN150	8 x M20	96	130	134	182	125	169
DN200	8 x M20	118	160	165	224	153	208
DN250	12 x M20	100	135	139	189	129	176
DN300	12 x M20	133	180	186	252	173	234
DN350	16 x M20	173	235	243	329	225	306
DN400	16 x M24	195	265	274	371	254	345
DN450	20 x M24	199	270	279	378	259	351
DN500	20 x M24	199	270	279	378	259	351
DN600	20 x M27	243	330	341	462	316	429

Please note that all threads should be clean and lightly lubricated, and that the use of standard washers under both bolt head and nut is strongly recommended.

In order to avoid causing damage to the sealing faces, flanges on pipes and fittings working at temperatures above 40°C should only be dismantled once the temperature of the system has been reduced to this temperature level.

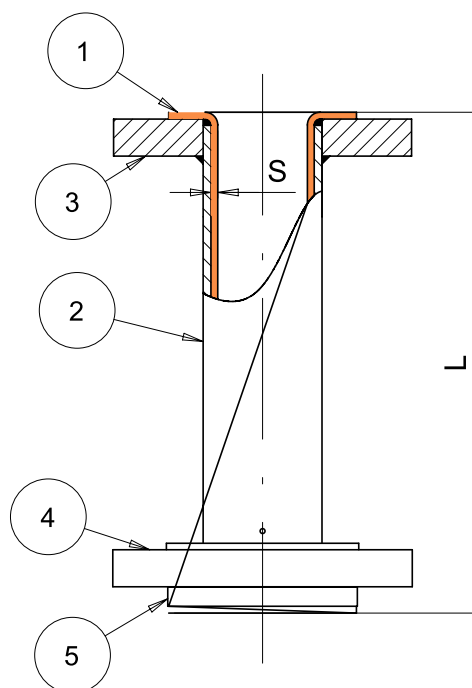
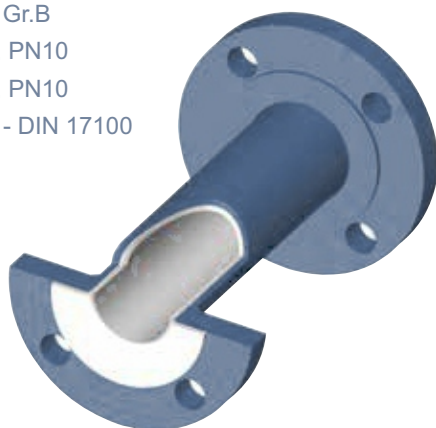
All PTFE/PFA lined products have small vent holes in the steel housing. It is important that these holes are not blocked by insulation or plugged by paint, as this may cause the lining to collapse.



PTFE-Lined Straight

Materials:

- 1.1 PFA ASTM D3307
- 1.2 ETFE ASTM D3159
- 1.3 PVDF ASTM D3222
- 1.4 PP ASTM D4101
- 1.5 XLPE ASTM D1998-04
- 1.6 PE ASTM D1998-04
- 2 APL 5 L Gr.B
- 3 EN DIN, PN10
- 4 EN DIN, PN10
- 5 St 37.0 - DIN 17100



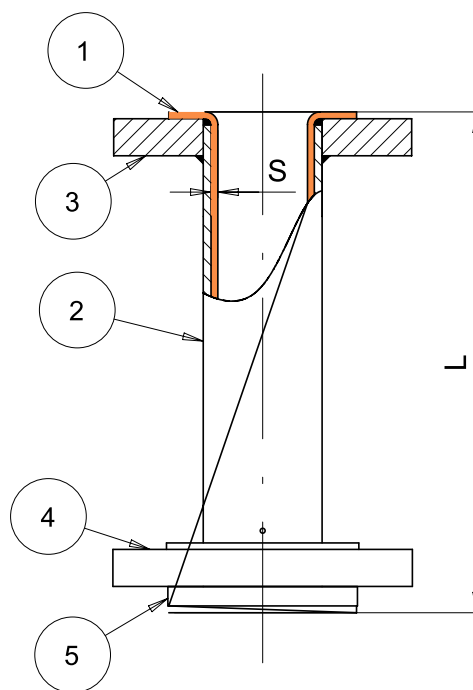
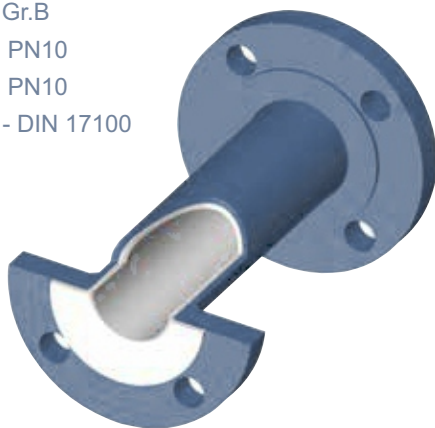
NB	L min	PTFE LINING						WEIGHT	
		SD	L max	HD	L max	SHD	L max	LINED PIPE	2 FLANGES
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
	mm	mm	mm	mm	mm	mm	mm	KG/M	KG
15	150	1,5	6,000	2.5	6,000	x	x	1.2	2.0
20	150	1,5	6,000	3.0	6,000	x	x	1.6	2.0
25	150	1,6	6,000	3.0	6,000	4	6,000	3.0	2.3
32	150	1,7	6,000	3.0	6,000	4.0	6,000	4.0	3.0
40	150	1,7	6,000	3.0	6,000	4.5	6,000	4.5	3.3
50	150	1,8	6,000	3.0	6,000	4.5	6,000	5.8	5.3
65	200	2,2	6,000	3.0	6,000	4.5	6,000	7.0	7.3
80	200	2,5	6,000	3.5	6,000	6.0	6,000	10.0	8.4
100	200	3,2	6,000	4.5	6,000	6.5	1,500	14.0	10.0
125	200	3,4	6,000	4.5	6,000	6.5	1,500	17.0	13.0
150	300	4.0	6,000	5.0	6,000	7.5	1,500	23.0	17.0
200	150	5.0	6,000	6.2	3,500	10.0	1,500	39.0	23.0
250	150	4,0 w	3,500	6.8	3,500	11.0	1,000	54.0	31.0
300	180	4,0 w	3,500	8.0	3,500	12.0	1,000	80.0	39.0
350	180	4,0 w	3,500	9.0	3,500	12.0	1,000	85.0	52.0
400	200	4,0 w	3,500	10.0	1,000	12.0	1,000	102.0	67.0
450	200	4,0 w	3,500	10.0	1,000	12.0	1,000	140.0	85.0
500	250	4,0 w	3,500	10.0	1,000	12.0	1,000	165.0	90.0
600	250	4,0 w	3,500	10.0	1,000	12.0	1,000	220.0	116.0



RL Lined Pipes

Materials:

- 1.1 PFA ASTM D3307
- 1.2 ETFE ASTM D3159
- 1.3 PVDF ASTM D3222
- 1.4 PP ASTM D4101
- 1.5 XLPE ASTM D1998-04
- 1.6 PE ASTM D1998-04
- 2 APL 5 L Gr.B
- 3 EN DIN, PN10
- 4 EN DIN, PN10
- 5 St 37.0 - DIN 17100



DIN 1029 class PN10, PN16										
DN	L min	Lining materials							PIPE	2 FLANGES
		PFA	ETFE	PVDF	PP	XLPE	PE	L max		
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%			
	mm	mm	mm	mm	mm	mm	mm	mm	Kg/m	Kg
15	×	×	×	×	×	×	×	×	×	×
20	×	×	×	×	×	×	×	×	×	×
25	×	×	×	×	×	×	×	×	×	×
32	×	×	×	×	×	×	×	×	×	×
42	100	3.0	3.0	3.0	3.0	3.0	3.0	1,000	4.8	3.3
50	100	3.0	3.0	3.0	3.0	3.0	3.0	1,000	6.3	5.3
65	110	3.0	3.0	3.0	3.0	3.0	3.0	1,200	10.0	7.3
80	110	4.5	4.5	4.5	4.5	4.5	4.5	2,000	13.0	8.4
100	120	4.5	4.5	4.5	4.5	4.5	4.5	2,250	19.0	13.0
125	120	4.5	4.5	4.5	4.5	4.5	4.5	2,250	24.5	15.6
150	130	6.0	6.0	6.0	6.0	6.0	6.0	2,250	32.0	19.5
200	150	6.0	6.0	6.0	6.0	6.0	6.0	2,250	48.0	30.0
250	150	6.0	6.0	6.0	6.0	6.0	6.0	2,250	69.0	43.0
300	180	8.0	8.0	8.0	8.0	8.0	8.0	2,250	87.0	63.0
350	180	8.0	8.0	8.0	8.0	8.0	8.0	2,250	95.0	89.0
400	200	8.0	8.0	8.0	8.0	8.0	8.0	2,250	108.0	97.0
450	200	8.0	8.0	8.0	8.0	8.0	8.0	2,250	123.0	128.0
500	250	8.0	8.0	8.0	8.0	8.0	8.0	2,250	137.0	163.0
600	250	8.0	8.0	8.0	8.0	8.0	8.0	2,250	167.0	215.0

Standard Version: one fixed lange one loose (lap joint)

Part Number: VLSGPLPxxx-xxxx - Where XXX are Dia – Length (in mm)

Available on request: • Two fixed or two loose langes

• EN DIN 1092' PN40

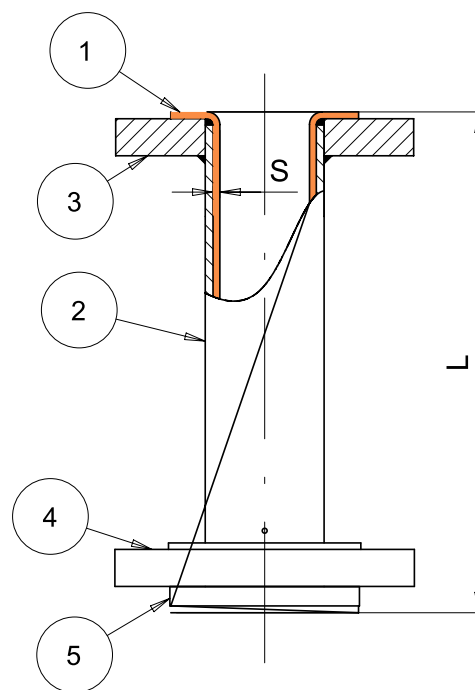
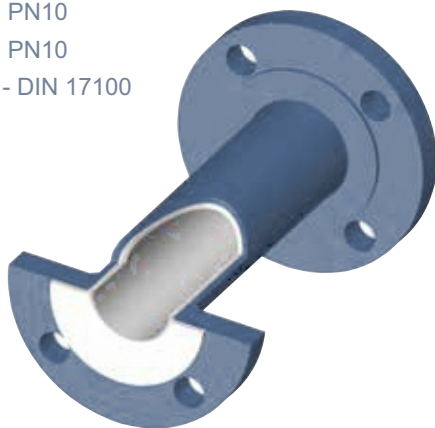
• Stainless steel body and langes 304/316



SL Lined Pipes

Materials:

- 1.1 PFA ASTM D3307
- 1.2 FEP ASTM D2116-02
- 1.3 PVDF ASTM D3222
- 1.4 PP ASTM D4101
- 1.5 PE ASTM D1998-04
- 2 APL 5 L Gr.B
- 3 EN DIN, PN10
- 4 EN DIN, PN10
- 5 St 37.0 - DIN 17100



DIN 1029 class PN10, PN16									
DN	L min	Lining materials						WEIGHT	
		PFA	FEP	PVDF	PP	PE	L max	PIPE	2 FLANGES
	mm	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	mm	Kg/m	Kg
15	x	1.5	1.5	1.5	-	-	4,500	×	×
20	x	1.9	1.9	1.9	3.0	3.0	4,500	×	×
25	x	1.9	1.9	1.9	3.0	3.0	4,500	×	×
32	x	2.4	2.4	2.4	3.0	3.0	4,500	×	×
42	100	2.4	2.4	2.4	3.0	3.0	4,500	4.8	3.3
50	100	3.0	3.0	3.0	3.0	3.0	4,500	6.3	5.3
65	110	3.0	3.0	3.0	3.0	3.0	4,500	10.0	7.3
80	110	3.6	3.6	3.6	4.0	4.0	4,500	13.0	8.4
100	120	5.3	5.3	5.3	5.0	5.0	4,500	19.0	13.0
125	120	3.9	3.9	3.9	5.0	5.0	4,500	24.5	15.6
150	130	4.4	4.4	4.4	5.0	5.0	4,500	32.0	19.5
200	150	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	48.0	30.0
250	150	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	69.0	43.0
300	180	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	87.0	63.0
350	180	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	95.0	89.0
400	200	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	108.0	97.0
450	200	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	123.0	128.0
500	250	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	137.0	163.0
600	250	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	167.0	215.0

Standard Version: one fixed flange one loose (lap joint)

Part Number: VLSGPLPxxx-xxxx - Where XXX are Dia – Length (in mm)

Available on request: • Two fixed or two loose flanges

• EN DIN 1092' PN40

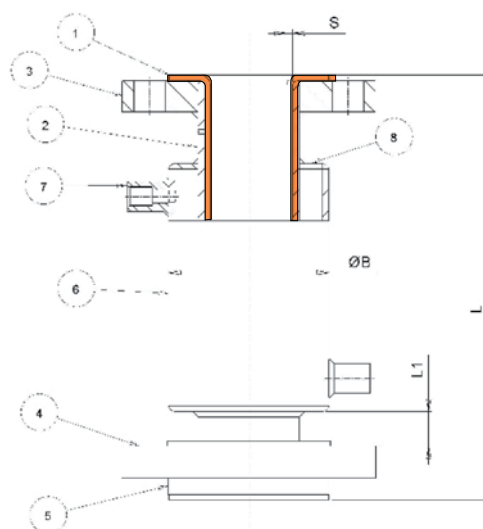
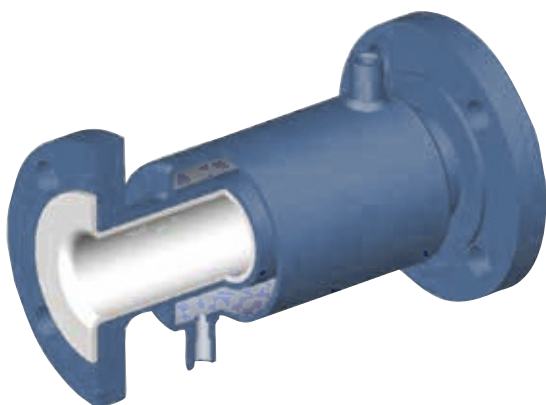
• Stainless steel body and flanges 304/316



Jacketed Lined Pipes

Materials:

1.1	PTFE Paste white ASTM – D4895/D4894	2	St 37.0 - DIN 1629
1.2	PTFE Granular white ASTM – D4895	2.1	APL 5 L Gr.B
1.3	PFA ASTM D3307	3	EN DIN, PN10
1.4	ETFE ASTM D3159	4	EN DIN, PN10
1.5	PVDF ASTM D3222	5	St 37.0 - DIN 17100
		6	St 37.0 - DIN 1629
		6.1	APL 5 L Gr.B
		7	St 37.0 - DIN 17100
		8	St 37.0 - DIN 17100



LINING MATERIALS									
DN	L min	L max	B	L1	PTFE	PFA	ETFE	PVDF	Part. No
			Jacket OD		s ± 10%	s ± 10%	s ± 10%	s ± 10%	
Inch	mm	mm	Inch	mm	mm	mm	mm	mm	
25	250	6000	2	40	3.0	3.5	3.0	3.0	VLSGDJLP-15025
42	250	6000	2 1/2	40	3.0	4.0	3.0	3.0	VLSGDJLP-15038
50	250	6000	3	40	3.0	4.0	3.5	3.5	VLSGDJLP-15050
80	300	6000	5	50	3.5	5.0	4.0	4.0	VLSGDJLP-15080
100	300	6000	6	50	4.5	5.0	4.5	4.5	VLSGDJLP-150100
150	300	6000	8	50	5.0	5.0	5.0	5.0	VLSGDJLP-150150
200	300	6000	10	50	6.5	5.0	5.0	5.0	VLSGDJLP-150200
250	300	3500	12	50	6.5	5.0	5.0	5.0	VLSGDJLP-150250

Standard Version: One fixed flange one loose (lap joint)

Available on request: • Loosed flanges
• EN DIN 1092' PN40

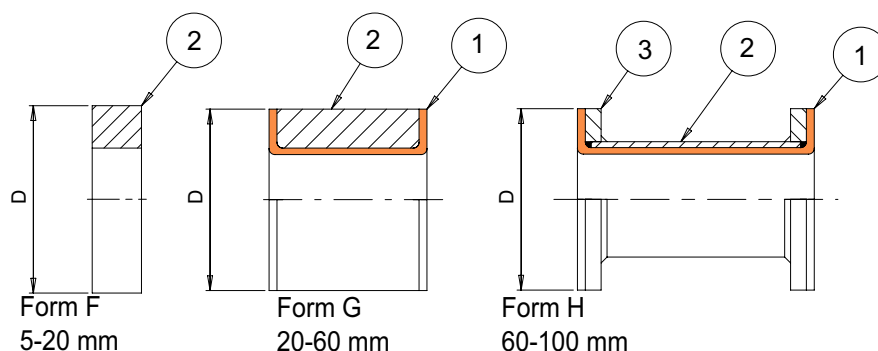
Stainless steel body and flanges 304/316



Solid And Lined Spacers

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PVDF ASTM D3222
- 1.3 PP ASTM D4101
- 2 St 37.0 - DIN 1629
- 2.1 APL 5 L Gr.B
- 3 St 37.0 - DIN 17100



DIN 1029 class PN10, PN16					
DN	D	PTFE	PVDF	PP	Part. No
		s ± 10%	s ± 10%	s ± 10%	
		mm	mm	mm	
15	45	4	4	4	VLSGDSLS-15012
20	58	4	4	4	VLSGDSLS-15019
25	68	4	4	4	VLSGDSLS-15025
32	78	4	4	4	VLSGDSLS-15032
40	88	4	4	4	VLSGDSLS-15038
50	102	4	4	4	VLSGDSLS-15050
65	122	4	4	4	VLSGDSLS-15062
80	138	4	4	4	VLSGDSLS-15080
100	158	5	5	5	VLSGDSLS-150100
125	188	5	5	5	VLSGDSLS-150125
150	212	5	5	5	VLSGDSLS-150150
200	268	5	5	5	VLSGDSLS-150200
250	320	5	5	5	VLSGDSLS-150250
300	378	5	5	5	VLSGDSLS-150300
350	438	5	5	5	VLSGDSLS-150350
400	490	5	5	5	VLSGDSLS-150400
-	-	5	5	5	VLSGDSLS-150450
500	610	5	5	5	VLSGDSLS-150500
600	725	5	5	5	VLSGDSLS-150600

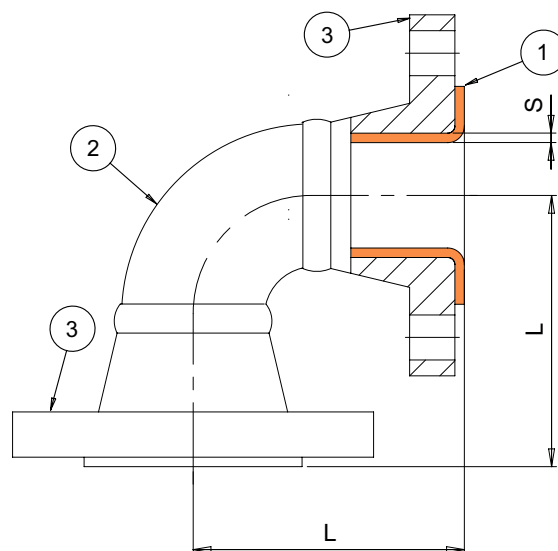
Available on request: • Stainless steel body and langes 304/316
• Different Lengths (L)



Lined Elbow 90°

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 E N DIN PN10 SLIP-ON
- 3.1 E N DIN PN10 WELD-NECK



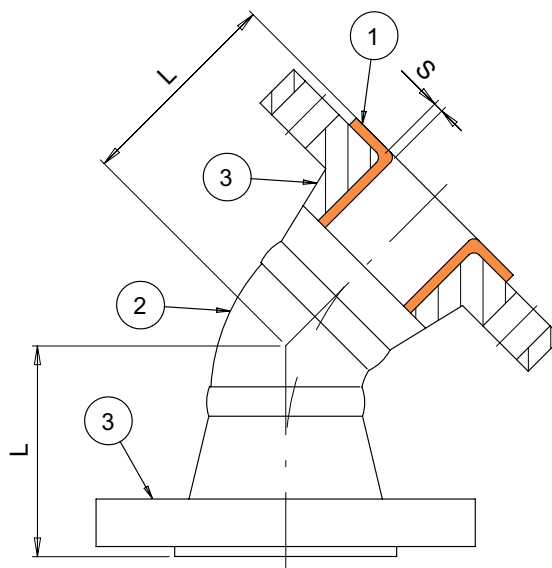
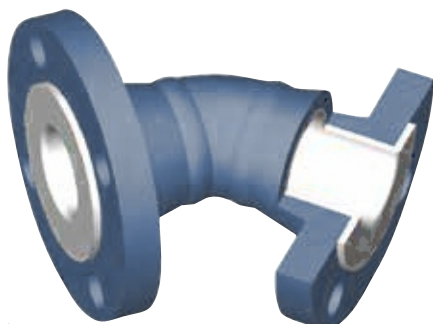
LINING MATERIALS										
DN	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	80	2.5	X	X	3.0	X	X	X	1.5	VLSGDLE90-15013
20	95	3.0	X	X	3.0	X	X	X	2.0	VLSGDLE90-15019
25	110	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	VLSGDLE90-15025
32	130	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.8	VLSGDLE90-15032
40	150	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.2	VLSGDLE90-15038
50	120	4.0	3.5	3.5	3.5	3.5	3.5	3.5	5.1	VLSGDLE90-15050
65	140	4.0	3.5	3.5	3.5	3.5	3.5	3.5	6.8	VLSGDLE90-15063
80	165	4.0	4.0	4.0	4.0	4.0	4.0	4.0	8.2	VLSGDLE90-15080
100	205	4.5	4.0	4.0	4.0	4.0	4.0	4.0	18.0	VLSGDLE90-150100
125	245	5.5	4.0	4.0	4.0	4.0	4.0	4.0	22.0	VLSGDLE90-150125
150	285	6.5	6.0	6.0	6.0	6.0	6.0	6.0	34.0	VLSGDLE90-150150
200	365	7.0	6.0	6.0	6.0	6.0	6.0	6.0	45.0	VLSGDLE90-150200
250	450	8.0	6.0	6.0	6.0	6.0	6.0	6.0	69.0	VLSGDLE90-150250
300	525	8.0	7.0	7.0	7.0	7.0	7.0	7.0	87.0	VLSGDLE90-150300
350	600	X	7.0	7.0	7.0	7.0	7.0	7.0	125.0	VLSGDLE90-150350
400	680	X	7.0	7.0	7.0	7.0	7.0	7.0	170.0	VLSGDLE90-150400
450	765	X	7.0	7.0	7.0	7.0	7.0	7.0	225.0	VLSGDLE90-150450
500	830	X	7.0	7.0	7.0	7.0	7.0	7.0	275.0	VLSGDLE90-150500
600	985	X	7.0	7.0	7.0	7.0	7.0	7.0	650.0	VLSGDLE90-150600
			o.r. - On request							



Lined Elbow 45°

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



DN	L	LINING MATERIALS							Weight	Part. No
		PTFE	PFA	ETFE	PVDF	XLPE	PE	PP		
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	45	2.5	X	X	3.0	X	X	X	1.8	VLSGDLE45-15013
20	45	3.0	X	X	3.0	X	X	X	2.0	VLSGDLE45-15019
25	70	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6	VLSGDLE45-15025
32	70	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6	VLSGDLE45-15038
40	90	4.0	3.5	3.5	3.5	3.5	3.5	3.5	10	VLSGDLE45-15050
50	90	4.0	3.5	3.5	3.5	3.5	3.5	3.5	15	VLSGDLE45-15063
80	100	4.0	4.0	4.0	4.0	4.0	4.0	4.0	15.0	VLSGDLE45-15080
100	115	4.5	4.0	4.0	4.0	4.0	4.0	4.0	20.0	VLSGDLE45-150100
125	130	5.5	4.0	4.0	4.0	4.0	4.0	4.0	26.0	VLSGDLE45-150125
150	150	6.5	6.0	6.0	6.0	6.0	6.0	6.0	33.0	VLSGDLE45-150150
200	190	7.0	6.0	6.0	6.0	6.0	6.0	6.0	54.0	VLSGDLE45-150200
250	225	8.0	6.0	6.0	6.0	6.0	6.0	6.0	75.180	VLSGDLE45-150250
300	260	8.0	7.0	7.0	7.0	7.0	7.0	7.0	190	VLSGDLE45-150300
350	290	8.0	7.0	7.0	7.0	7.0	7.0	7.0	210	VLSGDLE45-150350
400	325	X	7.0	7.0	7.0	7.0	7.0	7.0	245	VLSGDLE45-150400
450	350	X	7.0	7.0	7.0	7.0	7.0	7.0	260	VLSGDLE45-150450
500	390	X	7.0	7.0	7.0	7.0	7.0	7.0	290	VLSGDLE45-150500

Standard Version: Two fixed langes

Available on request:

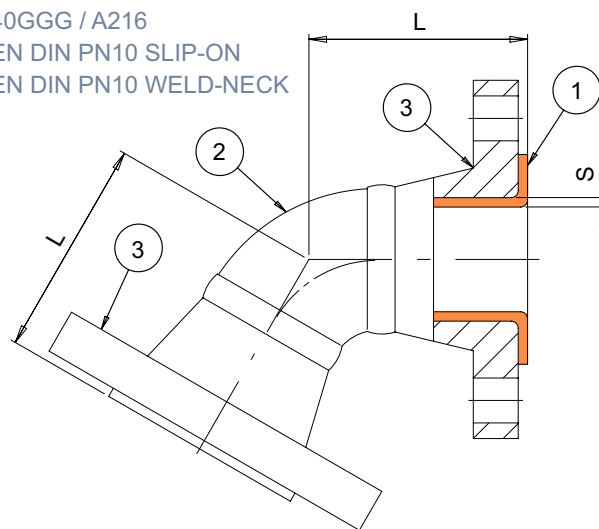
- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Elbow 60°

Materials:

1.1	PTFE Paste white ASTM – D4895/D4894	1.7	XLPE ASTM D1998-04
1.2	PTFE Granular white ASTM – D4895	1.8	PE ASTM D1998-04
1.3	PFA ASTM D3307	2	St 37.0 - DIN 1629
1.4	ETFE ASTM D3159	2.1	A 234 WPB
1.5	PVDF ASTM D3222	2.2	40GGG / A216
1.6	PP ASTM D4101	3	EN DIN PN10 SLIP-ON
		3.1	EN DIN PN10 WELD-NECK



LINING MATERIALS										
DN	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
mm	mm	s ± 10% mm	s ± 10% mm	s ± 10% mm	s ± 10% mm	s ± 10% mm	s ± 10% mm	s ± 10% mm	Kg	
15	63	2.5	X	X	3.0	X	X	X	1.6	VLSGDLE60-15013
20	75	3.0	X	X	3.0	X	X	X	1.8	VLSGDLE60-15019
25	84	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	VLSGDLE60-15025
40	108	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	VLSGDLE60-15038
50	93	4.0	3.5	3.5	3.5	3.5	3.5	3.5	8.1	VLSGDLE60-15050
65	104	4.0	3.5	3.5	3.5	3.5	3.5	3.5	11.7	VLSGDLE60-15063
80	120	4.0	4.0	4.0	4.0	4.0	4.0	4.0	13.5	VLSGDLE60-15080
100	145	4.5	4.0	4.0	4.0	4.0	4.0	4.0	18.0	VLSGDLE60-150100
125	166	5.5	4.0	4.0	4.0	4.0	4.0	4.0	20.5	VLSGDLE60-150125
150	188	6.5	6.0	6.0	6.0	6.0	6.0	6.0	26.1	VLSGDLE60-150150
200	240	7.0	6.0	6.0	6.0	6.0	6.0	6.0	42.7	VLSGDLE60-150200
250	286	8.0	6.0	6.0	6.0	6.0	6.0	6.0	59.3	VLSGDLE60-150250
300	330	8.0	7.0	7.0	7.0	7.0	7.0	7.0	86.9	VLSGDLE60-150300
350	375	X	7.0	7.0	7.0	7.0	7.0	7.0	92.4	VLSGDLE60-150350
400	425	X	7.0	7.0	7.0	7.0	7.0	7.0	114.6	VLSGDLE60-150400
450	415	X	7.0	7.0	7.0	7.0	7.0	7.0	130.4	VLSGDLE60-150450
500	508	X	7.0	7.0	7.0	7.0	7.0	7.0	165.9	VLSGDLE60-150500
600	900	X	7.0	7.0	7.0	7.0	7.0	7.0	229.1	VLSGDLE60-150600

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

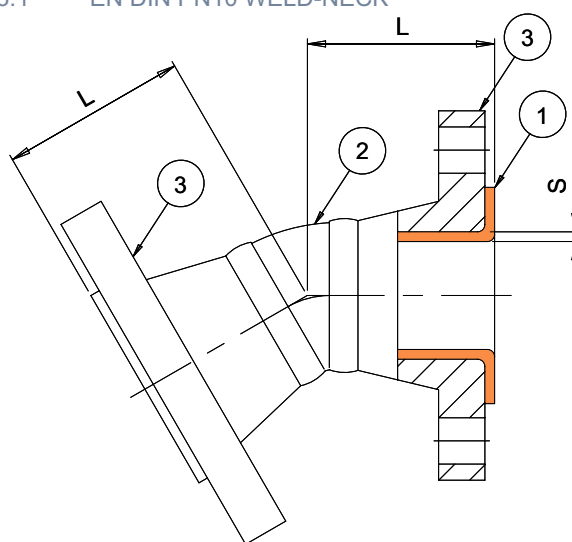
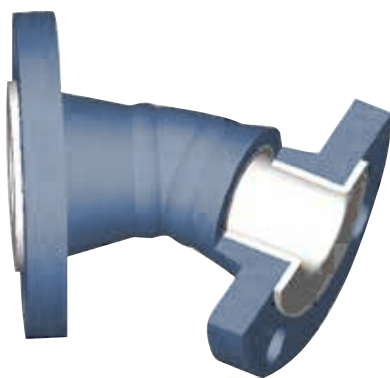


Lined Elbow 30°

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04

- 2 St 37.0 - DIN 1629
- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



DN	L	LINING MATERIALS							Weight	Part. No
		PTFE	PFA	ETFE	PVDF	XLPE	PE	PP		
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	45	2.5	X	X	3.0	X	X	X	1.6	VLSGDLE30-15013
20	45	3.0	X	X	3.0	X	X	X	1.8	VLSGDLE30-15019
25	45	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	VLSGDLE30-15025
40	57	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	VLSGDLE30-15038
50	64	4.0	3.5	3.5	3.5	3.5	3.5	3.5	8.1	VLSGDLE30-15050
65	76	4.0	3.5	3.5	3.5	3.5	3.5	3.5	11.7	VLSGDLE30-15063
80	76	4.0	4.0	4.0	4.0	4.0	4.0	4.0	13.5	DVLSGLE30-15080
100	102	4.5	4.0	4.0	4.0	4.0	4.0	4.0	16.0	VLSGDLE30-150100
125	114	5.5	4.0	4.0	4.0	4.0	4.0	4.0	20.8	VLSGDLE30-150125
150	127	6.5	6.0	6.0	6.0	6.0	6.0	6.0	26.4	VLSGDLE30-150150
200	140	7.0	6.0	6.0	6.0	6.0	6.0	6.0	43.2	VLSGDLE30-150200
250	165	8.0	6.0	6.0	6.0	6.0	6.0	6.0	56.3	VLSGDLE30-150250
300	190	8.0	7.0	7.0	7.0	7.0	7.0	7.0	82.5	VLSGDLE30-150300
350	190	X	7.0	7.0	7.0	7.0	7.0	7.0	87.8	VLSGDLE30-150350
400	203	X	7.0	7.0	7.0	7.0	7.0	7.0	108.8	VLSGDLE30-150400
450	216	X	7.0	7.0	7.0	7.0	7.0	7.0	123.8	VLSGDLE30-150450
500	241	X	7.0	7.0	7.0	7.0	7.0	7.0	157.5	VLSGDLE30-150500
600	279	X	7.0	7.0	7.0	7.0	7.0	7.0	217.5	VLSGDLE30-150600

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

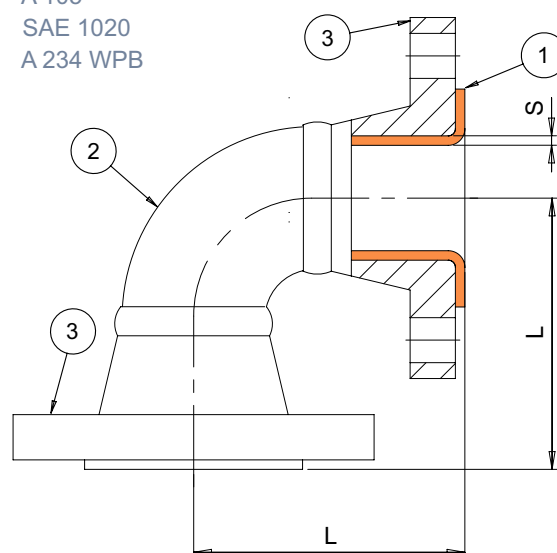
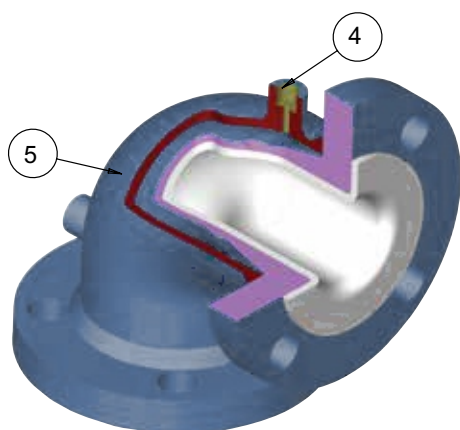


Jacketed Lined Elbows

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04

- 2 A216
- 2.1 A 234 WPB
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK
- 4 A 105
- 4.1 SAE 1020
- 5 A 234 WPB



LINING MATERIALS										
DN	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	80	2.5	X	X	3.0	X	X	X	1.5	VLSGDJLE90-15013
20	95	3.0	X	X	3.0	X	X	X	2.0	VLSGDJLE90-15019
25	110	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	VLSGDJLE90-15025
40	150	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	VLSGDJLE90-15038
50	120	4.0	3.5	3.5	3.5	3.5	3.5	3.5	6.5	VLSGDJLE90-15050
65	140	4.0	3.5	3.5	3.5	3.5	3.5	3.5	9.0	VLSGDJLE90-15063
80	165	4.0	4.0	4.0	4.0	4.0	4.0	4.0	12.0	VLSGDJLE90-15080
100	205	4.5	4.0	4.0	4.0	4.0	4.0	4.0	19.0	VLSGDJLE90-150100
125	245	5.5	4.0	4.0	4.0	4.0	4.0	4.0	22.0	VLSGDJLE90-150125
150	285	6.5	6.0	6.0	6.0	6.0	6.0	6.0	34.0	VLSGDJLE90-150150
200	365	7.0	6.0	6.0	6.0	6.0	6.0	6.0	57.0	VLSGDJLE90-150200
250	450	8.0	6.0	6.0	6.0	6.0	6.0	6.0	82.0	VLSGDJLE90-150250
300	525	8.0	7.0	7.0	7.0	7.0	7.0	7.0	115.0	VLSGDJLE90-150300
350	600	X	7.0	7.0	7.0	7.0	7.0	7.0	150.0	VLSGDJLE90-150350
400	680	X	7.0	7.0	7.0	7.0	7.0	7.0	192.0	VLSGDJLE90-150400
450	765	X	7.0	7.0	7.0	7.0	7.0	7.0	225.0	VLSGDJLE90-150450
500	830	X	7.0	7.0	7.0	7.0	7.0	7.0	280.0	VLSGDJLE90-150500
600	985	X	7.0	7.0	7.0	7.0	7.0	7.0	395.0	VLSGDJLE90-150600

Standard Version: Two fixed langes

Available on request: • One or Two loose langes
• EN DIN1092, PN40

Stainless steel body and langes 304/316

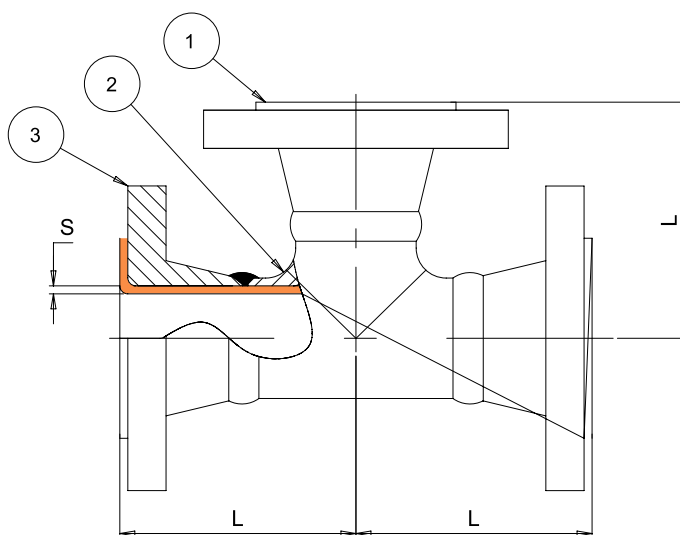
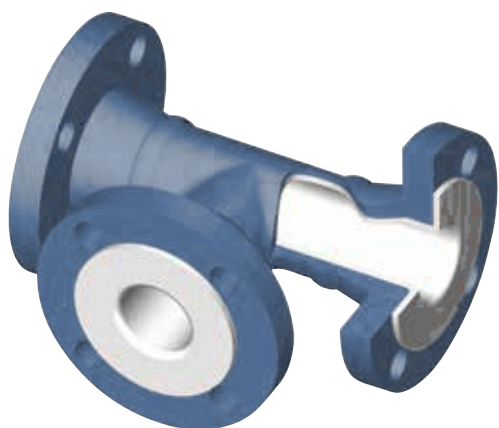
• Different Lengths (L)



Lined Equal Tees

Materials:

- | | | | |
|-----|---------------------------------|-----|-----------------------|
| 1.1 | DIN Granular white ASTM – D4895 | 2 | St 37.0 - DIN 1629 |
| 1.2 | PFA ASTM D3307 | 2.1 | A 234 WPB |
| 1.3 | ETFE ASTM D3159 | 2.2 | 40GGG / A216 |
| 1.4 | PVDF ASTM D3222 | 3 | EN DIN PN10 SLIP-ON |
| 1.5 | PP ASTM D4101 | 3.1 | EN DIN PN10 WELD-NECK |
| 1.6 | XLPE ASTM D1998-04 | | |
| 1.7 | PE ASTM D1998-04 | | |



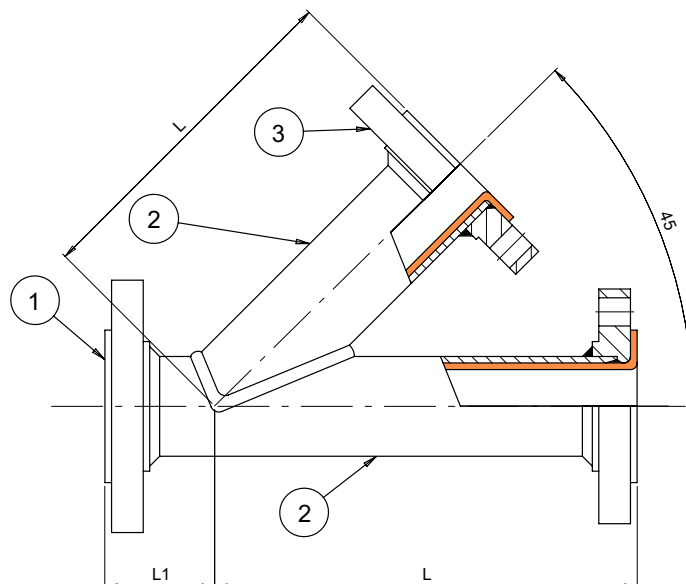
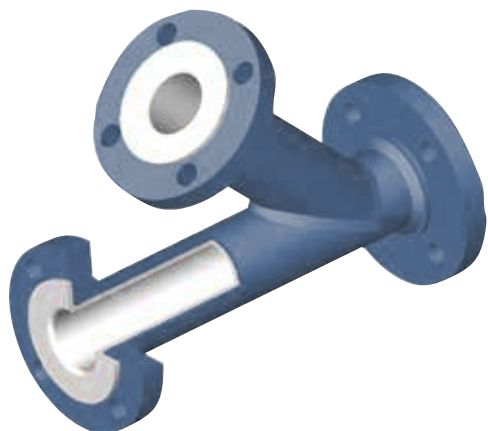
LINING MATERIALS										
DN	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	80	x	3.0	3.0	3.0	X	X	X	2.3	VLSGDLET-15013
20	95	x	3.0	3.0	3.0	X	X	X	3.2	VLSGDLET-15019
25	110	x	3.5	3.0	3.0	3.0	3.0	3.0	5.3	VLSGDLET-15025
32	130	x	3.5	3.0	3.0	3.0	3.0	3.0	7.5	VLSGDLET-15032
40	150	4.0	4.0	3.0	3.0	3.0	3.0	3.0	9.0	VLSGDLET-15038
50	120	4.0	4.0	3.5	3.5	3.5	3.5	3.5	11.0	VLSGDLET-15050
65	140	4.5	4.5	3.5	3.5	3.5	3.5	3.5	14.0	VLSGDLET-15063
80	165	5.7	5.7	4.0	4.0	4.0	4.0	4.0	19.0	VLSGDLET-15080
100	205	5.7	5.7	4.5	4.5	4.5	4.5	4.5	23.0	VLSGDLET-150100
125	245	6.0	6.0	4.5	4.5	4.5	4.5	4.5	35.0	VLSGDLET-150125
150	285	6.5	6.5	6.0	6.0	6.0	6.0	6.0	45.0	VLSGDLET-150150
200	365	7.0	7.0	6.0	6.0	6.0	6.0	6.0	70.0	VLSGDLET-150200
250	450	8.0	8.0	6.0	6.0	6.0	6.0	6.0	115.0	VLSGDLET-150250
300	525	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	160.0	VLSGDLET-150300
350	600	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	310.0	VLSGDLET-150350
400	680	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	375.0	VLSGDLET-150400
450	680	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	400.0	VLSGDLET-150450
500	500	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	420.0	VLSGDLET-150500
600	500	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	610.0	VLSGDLET-150600



Lined Lateral Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 XLPE ASTM D1998-04
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.1 APL 5 L Gr.B
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS										
DN	L	L1	PTFE	PFA	ETFE	PVDF	XLPE	PE	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
25	200	90	x	3.5	3.0	3.0	3.0	3.0	5.2	VLSGDLLT-15025
40	245	100	4.0	4.0	3.0	3.0	3.0	3.0	7.6	VLSGDLLT-15038
50	265	105	4.0	4.0	3.5	3.5	3.5	3.5	12.0	VLSGDLLT-15050
80	310	120	5.7	5.7	4.0	4.0	4.0	4.0	24.0	VLSGDLLT-15080
100	340	130	5.7	5.7	4.5	4.5	4.5	4.5	43.0	VLSGDLLT-150100
150	425	150	x	6.5	6.0	6.0	6.0	6.0	67.0	VLSGDLLT-150150
200	445	115	x	7.0	6.0	6.0	6.0	6.0	80.0	VLSGDLLT-150200
	* Different thicknesses available									

Standard Version: Three fixed langes

Available on request: • Loosed langes
• EN DIN1092, PN40

Stainless steel body and langes 304/316

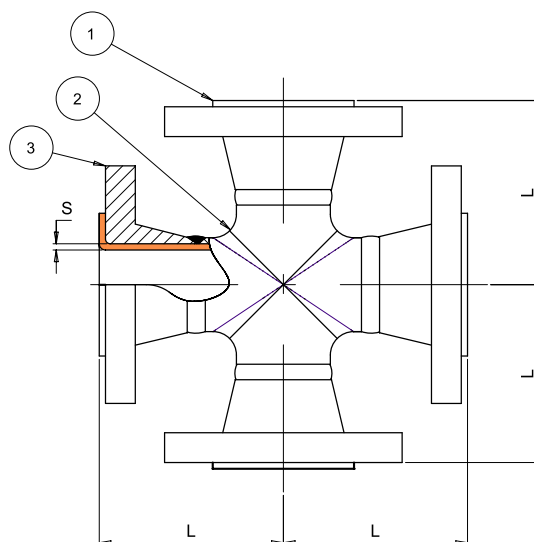
• Different Lengths (L)



Lined Equal Cross

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.1 A 234 WPB
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS										
DN	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
		s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
15	80	x	3.0	3.0	3.0	X	X	X	3.1	VLSGDLEC-15012
20	95	x	3.0	3.0	3.0	X	X	X	4.0	VLSGDLEC-15019
25	110	x	3.5	3.0	3.0	3.0	3.0	3.0	6	VLSGDLEC-15025
42	150	4.0	4.0	3.0	3.0	3.0	3.0	3.0	10	VLSGDLEC-15040
50	120	4.0	4.0	3.5	3.5	3.5	3.5	3.5	13	VLSGDLEC-15050
65	220	4.5	4.5	3.5	3.5	3.5	3.5	3.5	20	VLSGDLEC-15063
80	165	5.7	5.7	4.0	4.0	4.0	4.0	4.0	40	VLSGDLEC-15080
100	205	5.7	5.7	4.5	4.5	4.5	4.5	4.5	60	VLSGDLEC-150100
125	245	6.0	6.0	4.5	4.5	4.5	4.5	4.5	80	VLSGDLEC-150125
150	285	6.5	6.5	6.0	6.0	6.0	6.0	6.0	100	VLSGDLEC-150150
200	365	7.0	7.0	6.0	6.0	6.0	6.0	6.0	110	VLSGDLEC-150200
250	460	6.5 *	8.0	6.0	6.0	6.0	6.0	6.0	200	VLSGDLEC-150250
300	305	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	169.0	VLSGDLEC-150300
350	356	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	300.0	VLSGDLEC-150350
400	381	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	372.0	VLSGDLEC-150400
450	419	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	427.0	VLSGDLEC-150450
500	457	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	547.0	VLSGDLEC-150500
600	500	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	713.0	VLSGDLEC-150600

Standard Version: Four fixed langes

Available on request:

- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

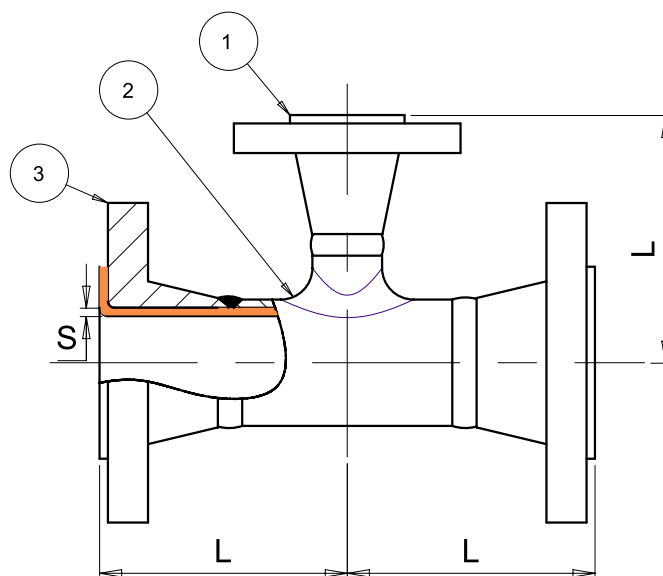
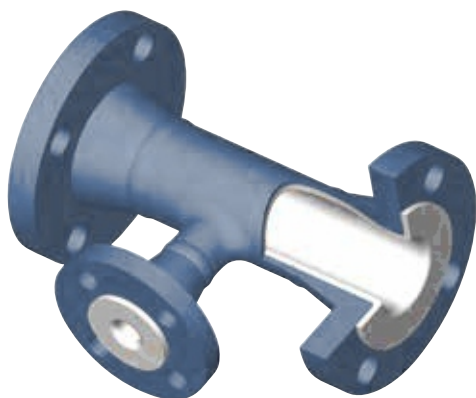


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
20	1/2"	75	x	3.0	x	x	x	x	x	3.0	VLSGDLRT-15019-15
25	1/2"	89	x	3.0	x	x	x	x	x	3.7	VLSGDLRT-15025-15
	3/4"				x	x	x	x	x	3.9	VLSGDLRT-15025-19
42	1/2"	102	3.0		x	x	x	x	x	5.1	VLSGDLRT-15038-12
	3/4"				x	x	x	x	x	5.3	VLSGDLRT-15038-19
	1"				3.0					5.5	VLSGDLRT-15038-25
50	1/2"	114	4.0 / 3		x	x	x	x	x	7.5	VLSGDLRT-15050-12
	3/4"				x	x	x	x	x	7.7	VLSGDLRT-15050-19
	1"				3.0					7.9	VLSGDLRT-15050-25
	1.5"									9.4	VLSGDLRT-15050-40

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

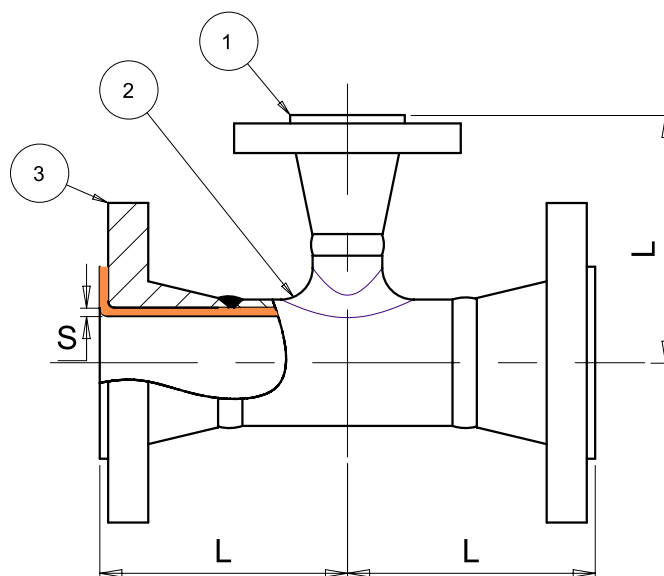
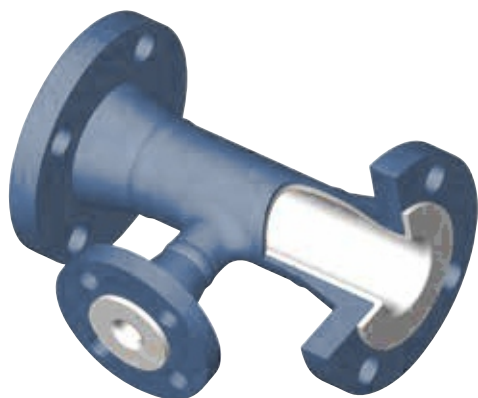


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
80	15	140	4.0 / 3							13.8	VLSGDLRT-15080-25
	42									14.0	VLSGDLRT-15080-40
	50									15.0	VLSGDLRT-15080-50
100	15	165	4.5 / 3							19.0	VLSGDLRT-150100-25
	42									19.8	VLSGDLRT-150100-40
	50									21.5	VLSGDLRT-150100-50
	80									23.5	VLSGDLRT-150100-80
150	15	203	6.0 / 3		4.5 / 3					28.2	VLSGDLRT-150150-25
	42									30.7	VLSGDLRT-150150-40
	50		6.0 / 4							32.0	VLSGDLRT-150150-50
	80									35.2	VLSGDLRT-150150-80
	100									37.0	VLSGDLRT-150150-100
200	15	229	6.0 / 3		6.0 / 3					42.5	VLSGDLRT-150200-25
	42				6					45.6	VLSGDLRT-150200-40
	50									47.0	VLSGDLRT-150200-50
	80		54.0	VLSGDLRT-150200-80							
	100		6.0 / 4.5		6.0 / 4		57.0	VLSGDLRT-150200-100			
	150						63.0	VLSGDLRT-150200-150			

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

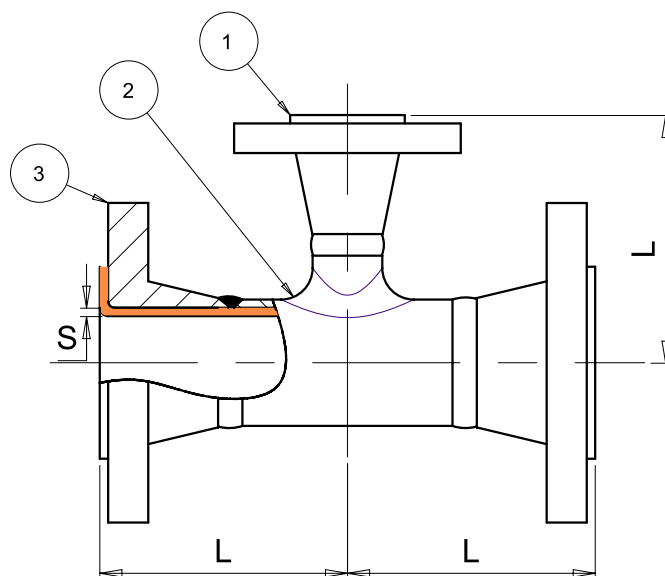
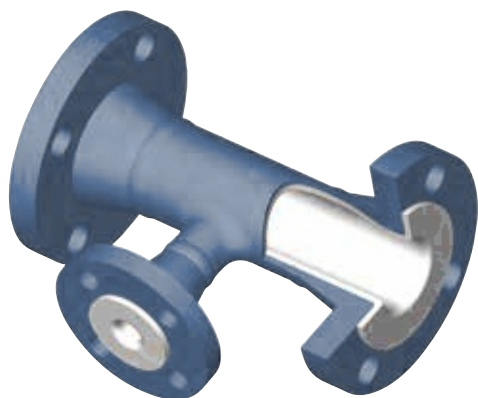


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
10"	15	280	6.5 / 3	6.0 / 3	6.0 / 3					64.6	VLSGDLRT-150250-25
	42									66.3	VLSGDLRT-150250-40
	50									68.3	VLSGDLRT-150250-50
	80		6.5 / 4	6.0 / 4	6.0					75.3	VLSGDLRT-150250-80
	100									79.3	VLSGDLRT-150250-100
	150		6.5 / 5	6.0 / 4.5	6.0					83.0	VLSGDLRT-150250-150
	200									94.0	VLSGDLRT-150250-200
12"	15	305	6.5 / 3 *	6.0 / 3					127.0	VLSGDLRT-150300-25	
	42								130.0	VLSGDLRT-150300-40	
	50								133.0	VLSGDLRT-150300-50	
	80		6.5 / 4 *	6.0					135.0	VLSGDLRT-150300-80	
	100		6.5 / 4.5 *						140.0	VLSGDLRT-150300-100	
	150		6.5 / 6 *	7.0					143.0	VLSGDLRT-150300-150	
	200								153.0	VLSGDLRT-150300-200	
	250								160.0	VLSGDLRT-150300-250	

- Standard Version:** Three fixed langes
- Available on request:**
- Loosed langes
 - EN DIN1092, PN40
 - Stainless steel body and langes 304/316
 - Different Lengths (L)

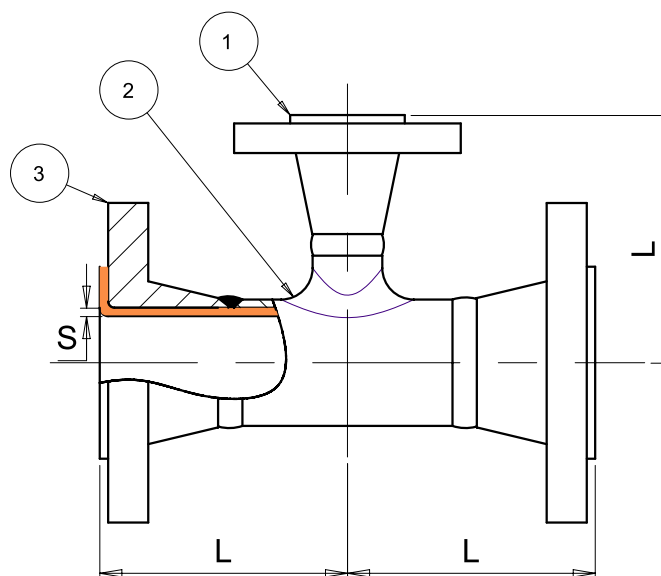
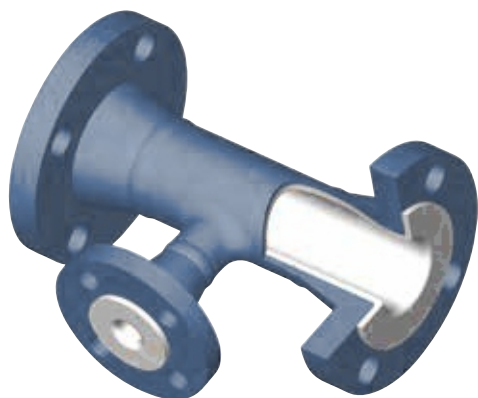


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
100	15	356	6.5 / 3 *	6.0 / 3						169.0	VLSGDLRT-150350-25
	42									173.0	VLSGDLRT-150350-40
	50									175.0	VLSGDLRT-150350-50
	80		6.5 / 4 *							186.0	VLSGDLRT-150350-80
	100		6.5 / 4.5 *	6.0						191.0	VLSGDLRT-150350-100
	150									204.0	VLSGDLRT-150350-150
	200		6.5 / 6 *	7.0						293.0	VLSGDLRT-150350-200
	250									299.0	VLSGDLRT-150350-250
	300			6.0 / 3						307.0	VLSGDLRT-150350-300
	350									227.0	VLSGDLRT-150400-25
400	25	381	6.5 / 3 *	6.0 / 3						231.0	VLSGDLRT-150400-40
	42									233.0	VLSGDLRT-150400-50
	50									244.0	VLSGDLRT-150400-80
	80		6.5 / 4 *							250.0	VLSGDLRT-150400-100
	100		6.5 / 4.5 *	6.0						263.0	VLSGDLRT-150400-150
	150									271.0	VLSGDLRT-150400-200
	200		6.5 / 6 *	7.0						283.0	VLSGDLRT-150400-250
	250									297.0	VLSGDLRT-150400-300
	300									303.0	VLSGDLRT-150400-350
	350										

- Standard Version:** Three fixed langes
- Available on request:**
- Loosed langes
 - EN DIN1092, PN40
 - Stainless steel body and langes 304/316
 - Different Lengths (L)

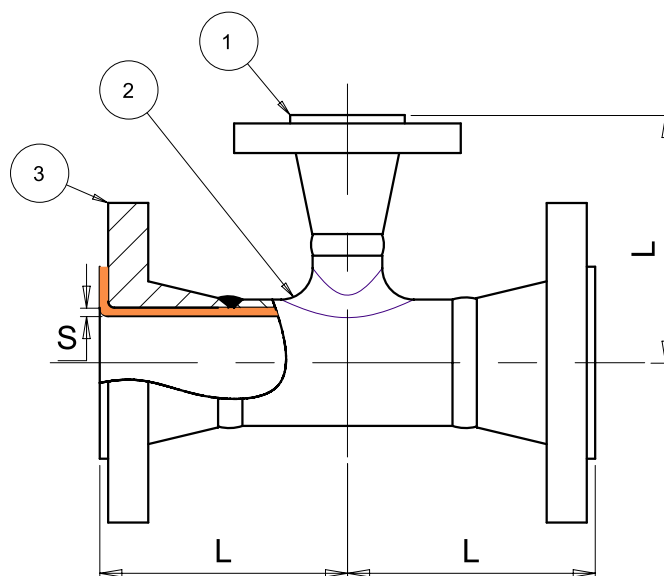
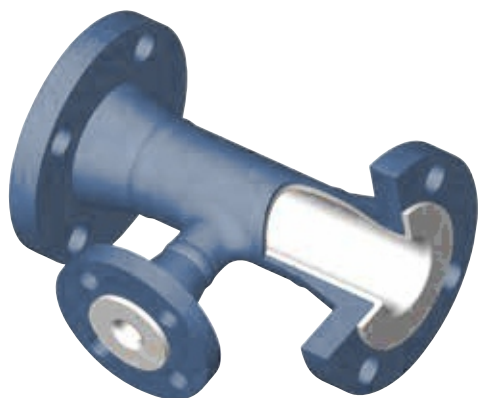


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
450	25	419	6.5 / 3 *	6.0 / 3						303.0	VLSGDLRT-150450-25
	42									307.0	VLSGDLRT-150450-40
	50									309.0	VLSGDLRT-150450-50
	80									319.0	VLSGDLRT-150450-80
	100		6.5 / 4 *	6.0						323.0	VLSGDLRT-150450-100
	150		6.5 / 4.5 *							338.0	VLSGDLRT-150450-150
	200		6.5 / 6 *	7.0						349.0	VLSGDLRT-150450-200
	250									358.0	VLSGDLRT-150450-250
	300									379.0	VLSGDLRT-150450-300
	350									405.0	VLSGDLRT-150450-350
	400									430.0	VLSGDLRT-150450-400

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- EN DIN1092, PN40

Stainless steel body and langes 304/316

- Different Lengths (L)

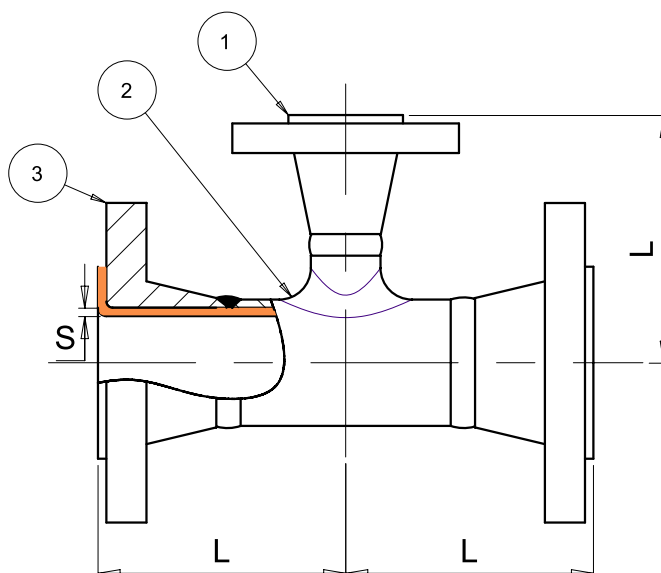
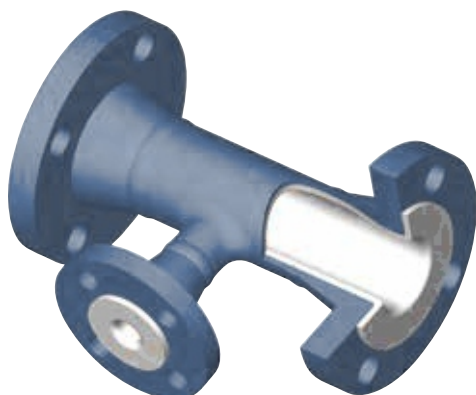


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
500	25	457	6.5 / 3 *	6.0 / 3						333.0	VLSGDLRT-150500-25
	42									335.0	VLSGDLRT-150500-40
	50									337.0	VLSGDLRT-150500-50
	80									340.0	VLSGDLRT-150500-80
	100		6.5 / 4 *	6.0						350.0	VLSGDLRT-150500-100
	150		6.5 / 4.5 *							356.0	VLSGDLRT-150500-150
	200		6.5 / 6 *	7.0						366.0	VLSGDLRT-150500-200
	250									377.0	VLSGDLRT-150500-250
	300									392.0	VLSGDLRT-150500-300
	350									407.0	VLSGDLRT-150500-350
	400									425.0	VLSGDLRT-150500-400
	450									437.0	VLSGDLRT-150500-450
	18"										

Standard Version: Three fixed langes

Available on request: • Loosed langes
• EN DIN1092, PN40

Stainless steel body and langes 304/316

• Different Lengths (L)

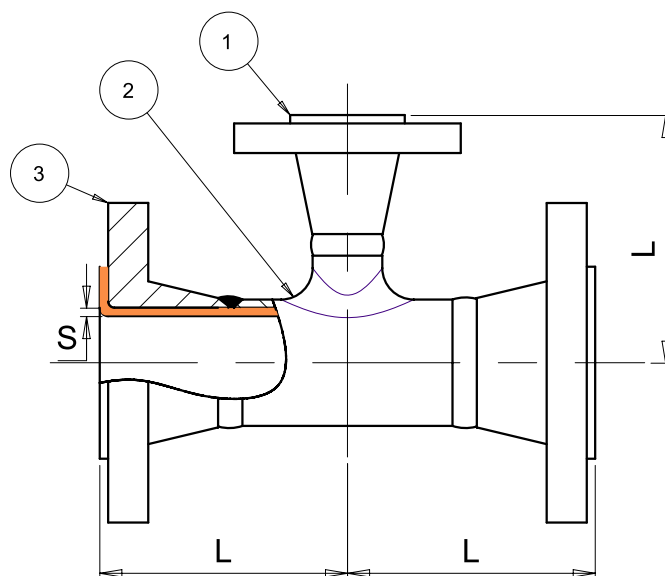
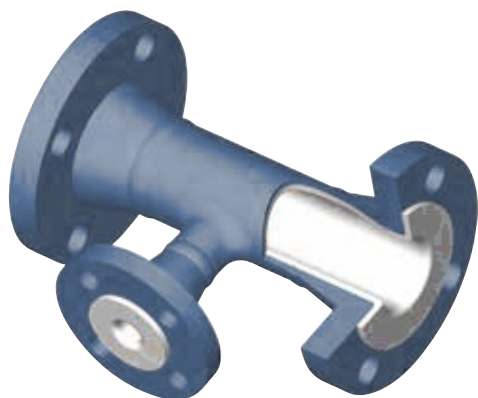


Lined Reducing Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
600	25	500	6.5 / 3 *	6.0 / 3						363.0	VLSGDLRT-150600-25
	42									367.0	VLSGDLRT-150600-40
	50									370.0	VLSGDLRT-150600-50
	80									377.0	VLSGDLRT-150600-80
	100		6.5 / 4 *	6.0						383.0	VLSGDLRT-150600-100
	150		6.5 / 4.5 *							396.0	VLSGDLRT-150600-150
	200		6.5 / 6 *	7.0						427.0	VLSGDLRT-150600-200
	250									473.0	VLSGDLRT-150600-250
	300									489.0	VLSGDLRT-150600-300
	350									507.0	VLSGDLRT-150600-350
	400									523.0	VLSGDLRT-150600-400
	450									535.0	VLSGDLRT-150600-450
	500									557.0	VLSGDLRT-150600-500

Standard Version: Three fixed langes

Available on request:

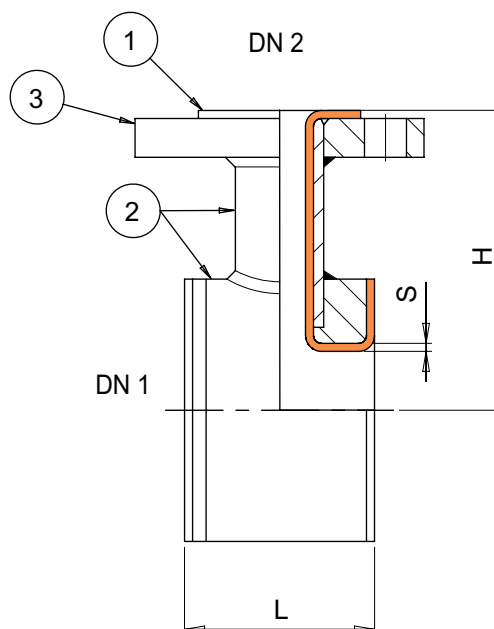
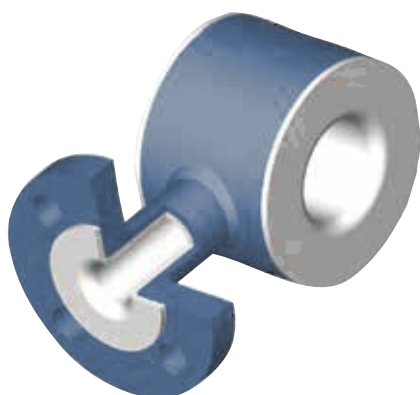
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Instrument Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	H	PTFE	PFA	ETFE	PVDF	PE	PP	Weight	Part. No
				s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
25	15	50	90	x	3.5					2.0	VLSGDLIT-15025-12
	20									2.0	VLSGDLIT-15025-19
	25									2.2	VLSGDLIT-15025-25
42	15	50	110	x	3.5					2.4	VLSGDLIT-15040-12
	20									2.6	VLSGDLIT-15040-19
	25									2.8	VLSGDLIT-15040-25
	42	75								4.4	VLSGDLIT-15040-40
50	15	50	115	x	4.0 / 3.5					3.3	VLSGDLIT-15050-12
	20									3.4	VLSGDLIT-15050-19
	25			3.0						3.7	VLSGDLIT-15050-25
	42	75		3.5						6.3	VLSGDLIT-15050-40
	50	90								8.0	VLSGDLIT-15050-50
80	15	50	135	x	4.0 / 3.5					4.3	VLSGDLIT-15080-12
	20									4.5	VLSGDLIT-15080-19
	25			3.0						4.7	VLSGDLIT-15080-25
	42	75		4.0						8.5	VLSGDLIT-15080-40
	50	90								12.5	VLSGDLIT-15080-50

Standard Version: Fixed langes

Available on request:

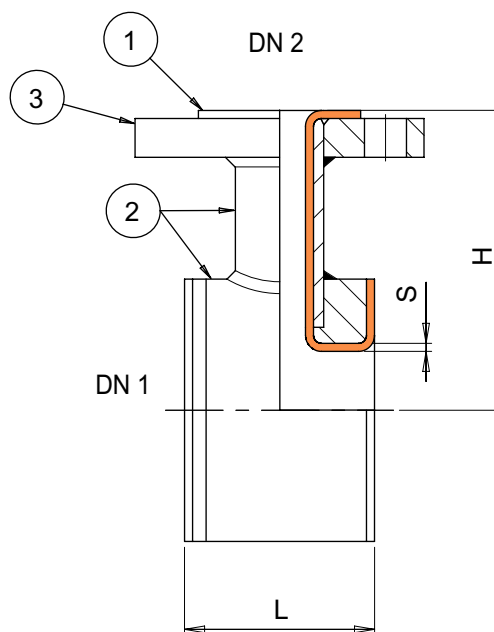
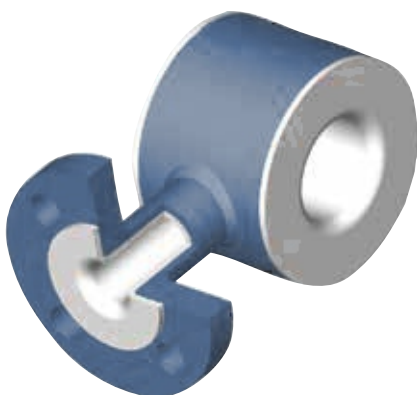
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Instrument Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	H	PTFE	PFA	ETFE	PVDF	PE	PP	Weight	Part. No
				s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
100	15	50	150	X	5.0 / 3.5					5.5	VLSGDLIT-150100-12
	20			3.0						5.7	VLSGDLIT-150100-19
	25			4.0						6.0	VLSGDLIT-150100-25
	42	75		4.0	5.0 / 4.0					9.0	VLSGDLIT-150100-40
	50	90								16.0	VLSGDLIT-150100-50
	80	150								22.0	VLSGDLIT-150100-80
150	15	50	180	X	6.0 / 3.5					7.7	VLSGDLIT-150150-12
	20			3.0						7.9	VLSGDLIT-150150-19
	25			4.0						8.2	VLSGDLIT-150150-25
	42	75		4.0	6.0 / 4.0					14.7	VLSGDLIT-150150-40
	50	90								21.8	VLSGDLIT-150150-50
	80	150								30.1	VLSGDLIT-150150-80
200	15	50	210	X	6.0 / 3.5					9.9	VLSGDLIT-150200-12
	20			3.0						10.3	VLSGDLIT-150200-19
	25			4.0						10.5	VLSGDLIT-150200-25
	42	75		4.0	6.0 / 4.0					17.8	VLSGDLIT-150200-40
	50	90								23.3	VLSGDLIT-150200-50
	80	150								34.0	VLSGDLIT-150200-80

Standard Version: Fixed langes

Available on request:

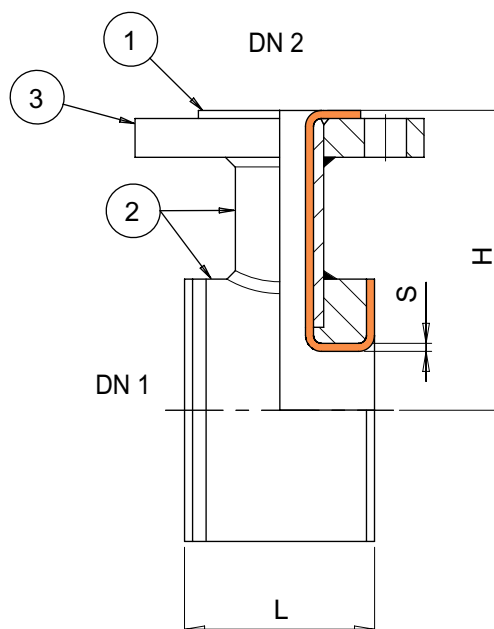
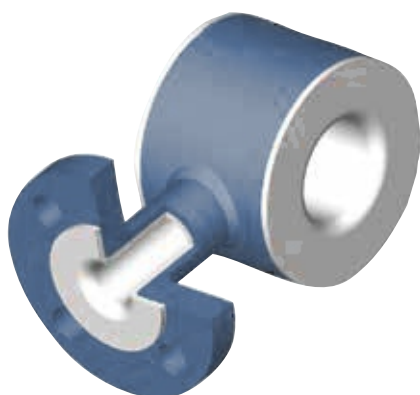
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Instrument Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 3 EN DIN PN10 SLIP-ON
- 2.2 40GGG / A216
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	H	PTFE	PFA	ETFE	PVDF	PE	PP	Weight	Part. No
				s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**	
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
250	15	50	240	×	8.0 / 3.5					13.1	VLSGDLIT-150250-12
	20			13.3						VLSGDLIT-150250-19	
	25			13.7						VLSGDLIT-150250-25	
	42	75		4.0	8.0 / 4.0					23.3	VLSGDLIT-150250-40
	50	90								26.0	VLSGDLIT-150250-50
	80	150								36.7	VLSGDLIT-150250-80
300	15	90	340	×	8.0 / 3.5					41.5	VLSGDLIT-150300-12
	20			42.2						VLSGDLIT-150300-19	
	25			43.0						VLSGDLIT-150300-25	
	42	110		4.0	8.0 / 4.0					55.5	VLSGDLIT-150300-40
	50	120								62.0	VLSGDLIT-150300-50
	80	150								70.0	VLSGDLIT-150300-80
350	15	90	375	×	8.0 / 3.5					50.7	VLSGDLIT-150350-12
	20			52.0						VLSGDLIT-150350-19	
	25			53.1						VLSGDLIT-150350-25	
	42	110		6.5 / 4 *	8.0 / 4.0					66.5	VLSGDLIT-150350-40
	50	120								73.7	VLSGDLIT-150350-50
	80	150								82.0	VLSGDLIT-150350-80

Standard Version: Fixed langes

Available on request:

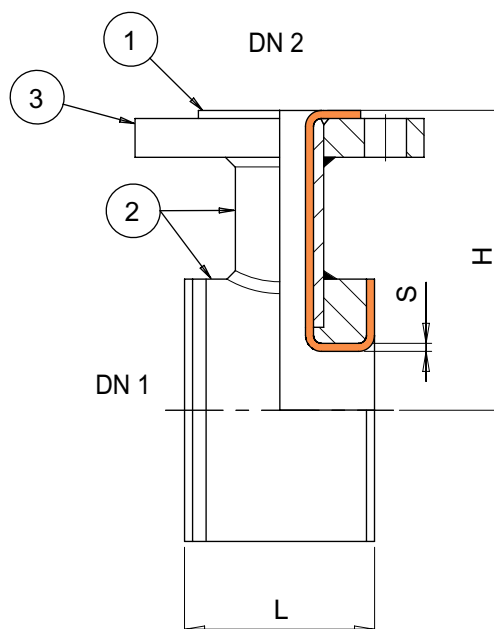
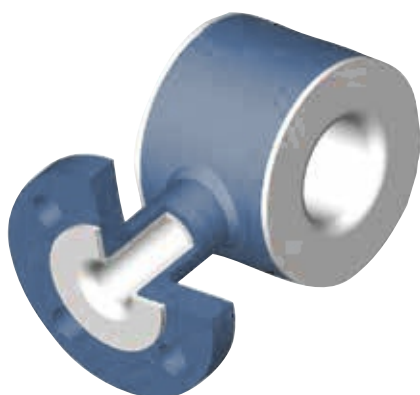
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Instrument Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS																
DN 1	DN 2	L	H	PTFE	PFA	ETFE	PVDF	PE	PP	Weight	Part. No					
				s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**						
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg						
400	15	90	390	X	8.0 / 3.5					57.0	VLSGDLIT-150400-12					
	20			6.5 / 3 *						58.0	VLSGDLIT-150400-19					
	25									59.0	VLSGDLIT-150400-25					
	42	110		6.5 / 4 *	8.0 / 4.0					74.0	VLSGDLIT-150400-40					
	50	120								83.0	VLSGDLIT-150400-50					
	80	150								93.0	VLSGDLIT-150400-80					
450	15	90	450	X	8.0 / 3.5					66.0	VLSGDLIT-150450-12					
	20			6.5 / 3 *						67.0	VLSGDLIT-150450-19					
	25									68.5	VLSGDLIT-150450-25					
	42	110		6.5 / 4 *	8.0 / 4.0					90.5	VLSGDLIT-150450-40					
	50	120								93.7	VLSGDLIT-150450-50					
	80	150								104.0	VLSGDLIT-150450-80					
500	15	90	500	X	8.0 / 3.5					69.0	VLSGDLIT-150500-12					
	20			6.5 / 3 *						70.8	VLSGDLIT-150500-19					
	25									72.0	VLSGDLIT-150500-25					
	42	110		6.5 / 4 *	8.0 / 4.0					89.7	VLSGDLIT-150500-40					
	50	120								100.0	VLSGDLIT-150500-50					
	80	150								113.0	VLSGDLIT-150500-80					

Standard Version: Fixed langes

Available on request:

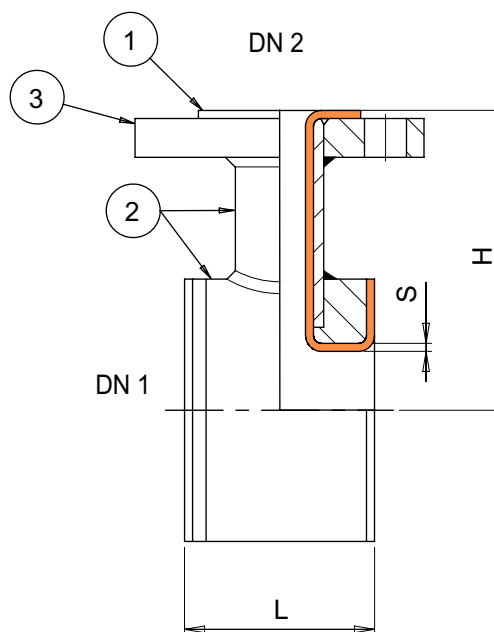
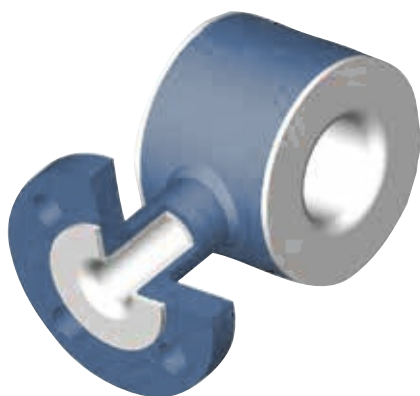
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Instrument Tees

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS																
DN 1	DN 2	L	H	PTFE	PFA	ETFE	PVDF	PE	PP	Weight	Part. No					
				s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	**						
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg						
600	15	90	510	X	8.0 / 3.5					78.3	VLSGDLIT-150600-12					
	20			6.5 / 3 *						78.4	VLSGDLIT-150600-19					
	25									79.1	VLSGDLIT-150600-25					
	42	110		6.5 / 4 *	8.0 / 4.0					94.5	VLSGDLIT-150600-40					
	50	120								107.5	VLSGDLIT-150600-50					
	80	150								120.0	VLSGDLIT-150600-80					

Standard Version: Fixed langes
Available on request:

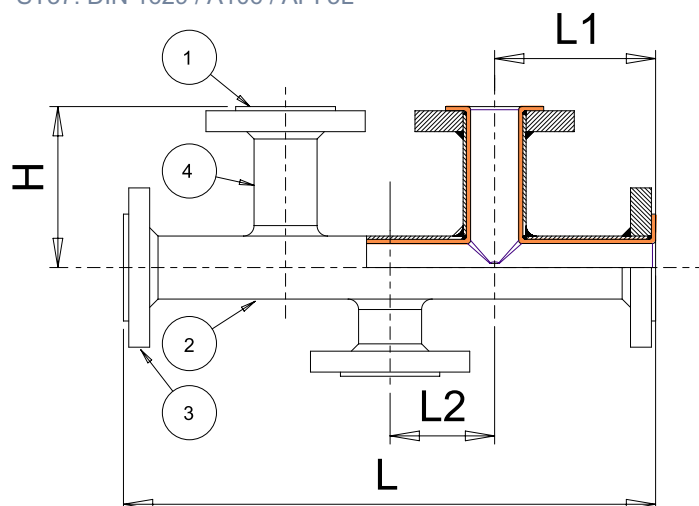
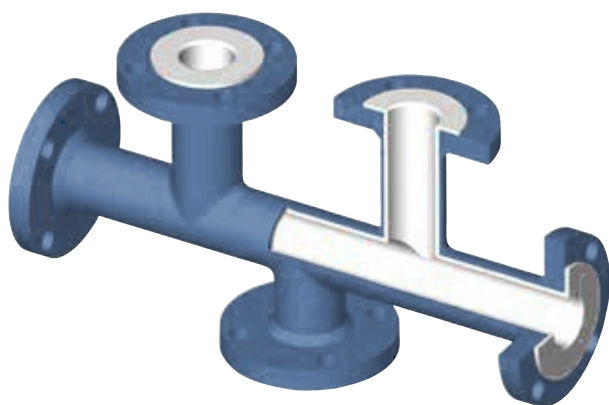
- Loosed langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Manifold

Materials:

- | | | | |
|-----|-------------------------------------|-----|--------------------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 2 | ST37 – DIN1629 / A106 / AP152 |
| 1.2 | PTFE Granular white ASTM – D4895 | 3 | EN DIN PN10 SLIP ON |
| 1.3 | PFA ASTM D3307 | 3.1 | EN DIN PN10 WELD NECK |
| 1.4 | ETFE ASTM D3159 | 4 | ST37. DIN 1629 / A106 / API 5L |
| 1.5 | PVDF ASTM D3222 | | |
| 1.6 | PP ASTM D4101 | | |
| 1.7 | XLPE ASTM D1998-04 | | |



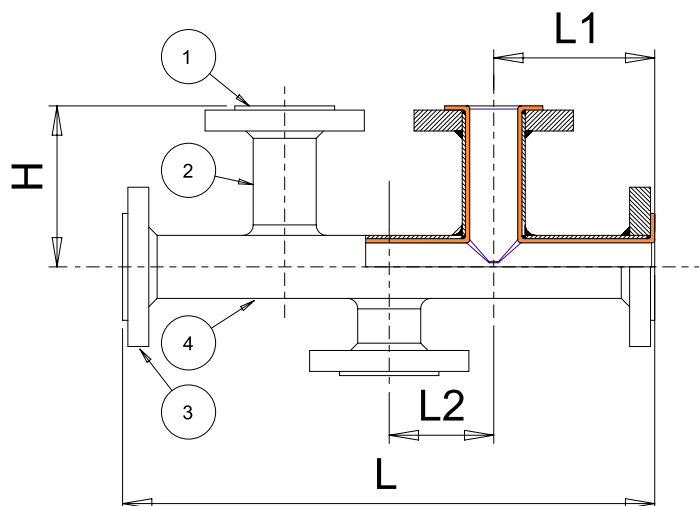
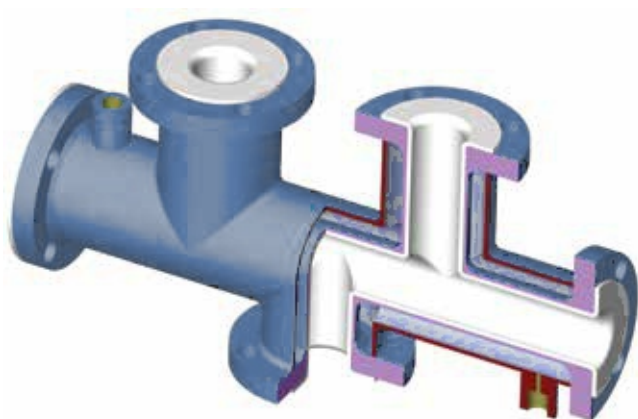
LINING MATERIALS						
Nozzle DN	D	d1	H	T	S	Part. No
			max			
	mm	mm	mm	mm	mm	
15	35	14	2000	15	4	VLSGDLM-15012
20	43	17	2000	15	5	VLSGDLM-15019
25	108	23	2000	20	8	VLSGDLM-15025
42	127	35	2000	25	10	VLSGDLM-15038
50	152	45	2000	25	12	VLSGDLM-15050
65	178	55	2000	25	12	VLSGDLM-15062
80	190	70	2000	25	15	VLSGDLM-15080
100	229	92	2000	30	15	VLSGDLM-150100
125	254	118	2000	30	15	VLSGDLM-150125
150	280	144	2000	30	15	VLSGDLM-150150
200	343	190	2000	30	15	VLSGDLM-150200
250	406	240	1000	30	15	VLSGDLM-150250
300	428	290	1000	30	15	VLSGDLM-150300
350	534	325	1000	30	15	VLSGDLM-150350
400	596	376	1000	30	15	VLSGDLM-150400
450	635	425	1000	30	15	VLSGDLM-150450
500	600	475	1000	30	15	VLSGDLM-150500



Jacketed Tees & Manifold

Materials:

- | | | | |
|-----|-------------------------------------|-----|--------------------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 2 | St37 – DIN1629 / A106 / Ap152 |
| 1.2 | PTFE Granular white ASTM – D4895 | 3 | EN DIN PN10 SLIP ON |
| 1.3 | PFA ASTM D3307 | 3.1 | EN DIN PN10 WELD NECK |
| 1.4 | ETFE ASTM D3159 | 4 | ST37. DIN 1629 / A106 / API 5L |
| 1.5 | PVDF ASTM D3222 | | |
| 1.6 | PP ASTM D4101 | | |
| 1.7 | XLPE ASTM D1998-04 | | |



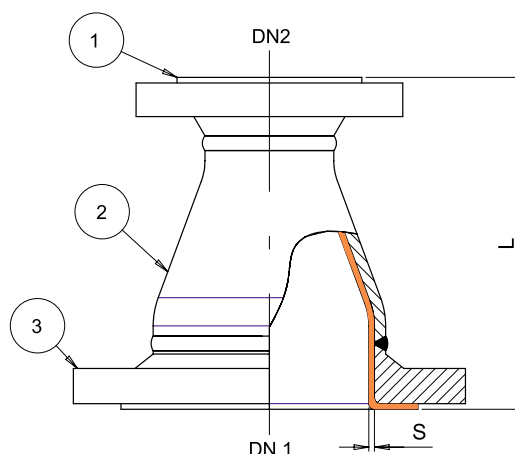
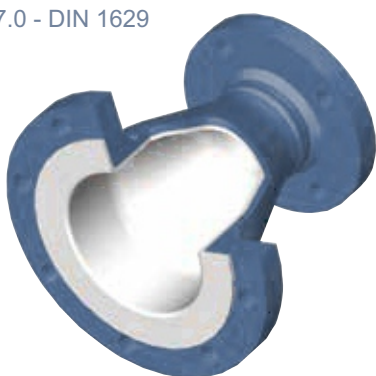


Lined Concentric Reducers

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
20	15	125	2.0	2.0	x	x	x	x	x	2.1	VLSGDLCR-15019-12
25	15	125	3.0	x	x	x	x	x	x	2.3	VLSGDLCR-15025-12
	20			x	x	x	x	x	x	2.3	VLSGDLCR-15025-19
32	20	130	3.0	x	x	x	x	x	x	2.7	VLSGDLCR-15032-19
	25			x	3.0					3.0	VLSGDLCR-15032-25
40	20	145	3.0	x	x	x	x	x	x	3.1	VLSGDLCR-15038-19
	25			3.0						3.3	VLSGDLCR-15038-25
50	25	165	4.0 / 3	3.0						4.1	VLSGDLCR-15050-25
	40									4.8	VLSGDLCR-15050-38
65	25	185	4.0 / 3	3.0						5.8	VLSGDLCR-15062-25
	50									6.9	VLSGDLCR-15062-50
80	25	190	4.0 / 3							6.7	VLSGDLCR-15080-25
	40									6.2	VLSGDLCR-15080-38
	50									6.9	VLSGDLCR-15080-50
100	25	205	4.5 / 3.5							9.9	VLSGDLCR-150100-25
	40									9.3	VLSGDLCR-150100-38
	50									9.8	VLSGDLCR-150100-50
	80									12.4	VLSGDLCR-150100-80

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

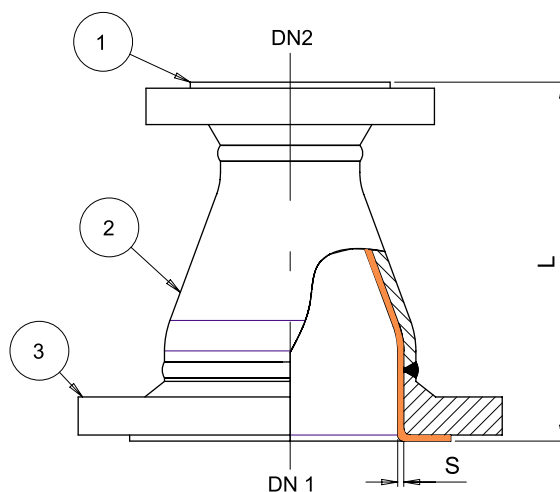


Lined Concentric Reducers

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
125	25	235	4.5 / 3.5							10.5	VLSGDLCR-150125-50
	80									12.7	VLSGDLCR-150125-80
	100									15.0	VLSGDLCR-150125-100
150	25	250	4.5 / 3.0							18.9	VLSGDLCR-150150-25
	50		5.0 / 4.0							19.9	VLSGDLCR-150150-50
	80									17.4	VLSGDLCR-150150-80
	100									18.3	VLSGDLCR-150150-100
200	100	270	7.0	6.0						22.0	VLSGDLCR-150200-100
	150								25.3	VLSGDLCR-150200-150	
250	100	310	7.0	6.0						33.0	VLSGDLCR-150250-100
	150								37.5	VLSGDLCR-150250-150	
	200								44.7	VLSGDLCR-150250-200	
300	150	340	7.0							45.9	VLSGDLCR-150300-150
	200									47.8	VLSGDLCR-150300-200
	250									52.5	VLSGDLCR-150300-250
350	200	465	7.0							69.0	VLSGDLCR-150350-200
	250									73.5	VLSGDLCR-150350-250
	300									80.0	VLSGDLCR-150350-300

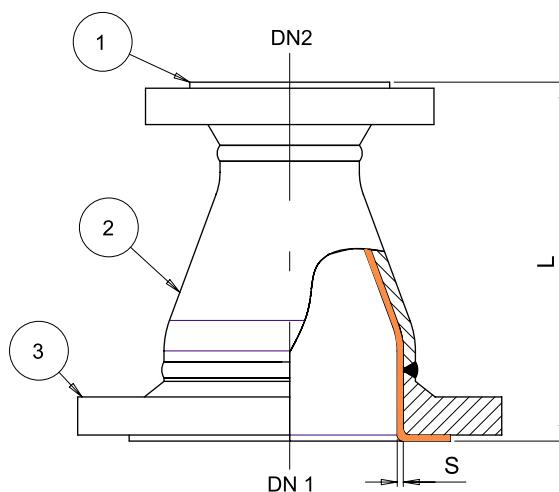


Lined Concentric Reducers

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 1.5 PVDF ASTM D3222
- 1.6 PP ASTM D4101
- 1.7 XLPE ASTM D1998-04
- 1.8 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
400	250	495	7.0							98.0	VLSGDLCR-150400-250
	300									105.0	VLSGDLCR-150400-300
	350									115.0	VLSGDLCR-150400-350
450	300	495	7.0							135.0	VLSGDLCR-150450-300
	350									148.0	VLSGDLCR-150450-350
	400									157.0	VLSGDLCR-150450-400
500	300	650	7.0							185.0	VLSGDLCR-150500-300
	350									198.0	VLSGDLCR-150500-350
	400									210.0	VLSGDLCR-150500-400
	450									218.0	VLSGDLCR-150500-450
600	400	750	7.0							272.0	VLSGDLCR-150600-400
	450									282.0	VLSGDLCR-150600-450
	500									291.0	VLSGDLCR-150600-500

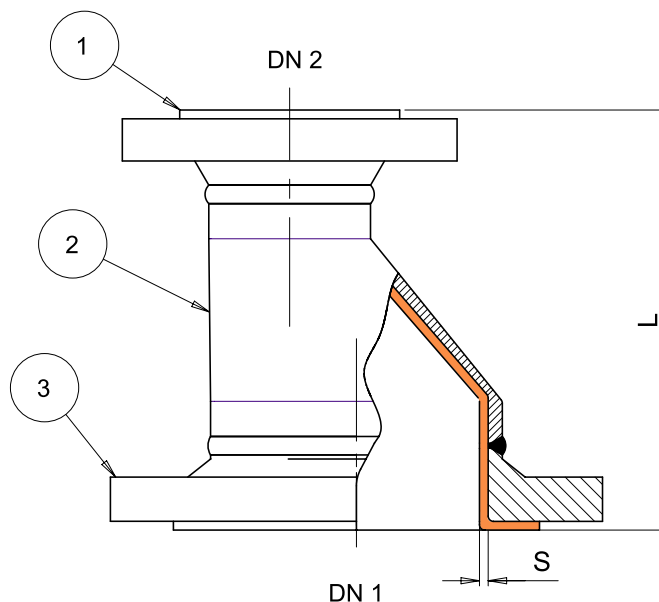


Lined Eccentric Reducers

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			S ± 10%	S ± 10%	S ± 10%	S ± 10%	S ± 10%	S ± 10%	S ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
42	25	114	3.0	3.0						3.0	VLSGDLER-15038-25
50	25	127	4.0 / 3	3.0						4.0	VLSGDLER-15050-25
	42									4.3	VLSGDLER-15050-38
80	25	152	4.0 / 3						6.7	VLSGDLER-15080-25	
	42								6.2	VLSGDLER-15080-38	
	50								7.0	VLSGDLER-15080-50	
100	42	178	4.5 / 3.5						11.0	VLSGDLER-150100-38	
	50								11.8	VLSGDLER-150100-50	
	80								14.8	VLSGDLER-150100-80	
150	50	229	5.0 / 4.0						17.0	VLSGDLER-150150-50	
	80								19.0	VLSGDLER-150150-80	
	100								21.0	VLSGDLER-150150-100	
200	100	279	6.0	6.0						22.0	VLSGDLER-150200-100
	150									26.0	VLSGDLER-150200-150

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)

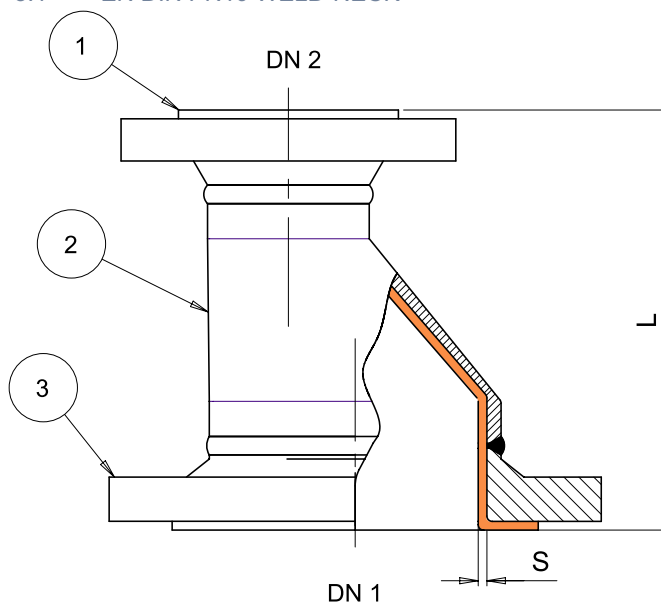


Lined Eccentric Reducers

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629

- 2.1 A 234 WPB
- 2.2 40GGG / A216
- 3 EN DIN PN10 SLIP-ON
- 3.1 EN DIN PN10 WELD-NECK



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
250	100	305	6.0	6.0						33.0	VLSGDLER-150250-100
	150									37.5	VLSGDLER-150250-150
	200									44.7	VLSGDLER-150250-200
300	150	356	6.0							45.0	VLSGDLER-150300-150
	200									47.5	VLSGDLER-150300-200
	250									53.0	VLSGDLER-150300-250
350	200	406	6.0							67.5	VLSGDLER-150350-200
	250									73.0	VLSGDLER-150350-250
	300									80.0	VLSGDLER-150350-300
400	250	457	6.0							98.0	VLSGDLER-150400-250
	300									105.0	VLSGDLER-150400-300
	350									115.0	VLSGDLER-150400-350
450	300	483	6.0							135.0	VLSGDLER-150450-300
	350									148.0	VLSGDLER-150450-350
	400									157.0	VLSGDLER-150450-400

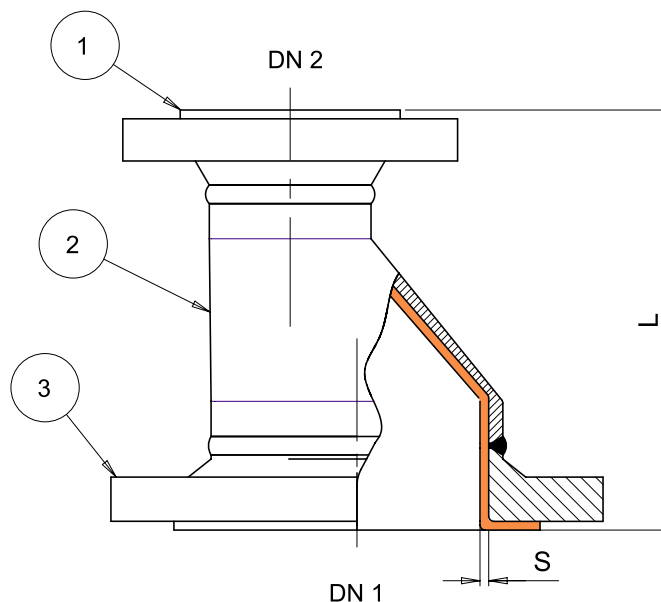
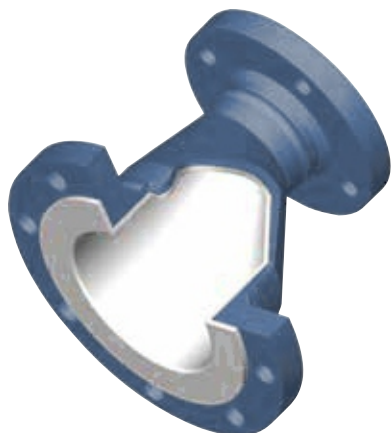
- Standard Version:** Two fixed langes
- Available on request:**
- One or Two loose langes
 - EN DIN1092, PN40
 - Stainless steel body and langes 304/316
 - Different Lengths (L)



Lined Eccentric Reducers

Materials:

- 1.1 PTFE Granular white ASTM – D4895
- 1.2 PFA ASTM D3307
- 1.3 ETFE ASTM D3159
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 1.6 XLPE ASTM D1998-04
- 1.7 PE ASTM D1998-04
- 2 St 37.0 - DIN 1629
- 2.1 A 234 WPB
- 3 EN DIN PN10 SLIP-ON



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	XLPE	PE	PP	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%		
Inch	Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
500	300	508	6.0							188.0	VLSGDLER-150500-300
	350									200.0	VLSGDLER-150500-350
	400									210.0	VLSGDLER-150500-400
	450									218.0	VLSGDLER-150500-450
600	500	610	6.0							290.0	VLSGDLER-150600-500

Standard Version: Two fixed langes

Available on request:

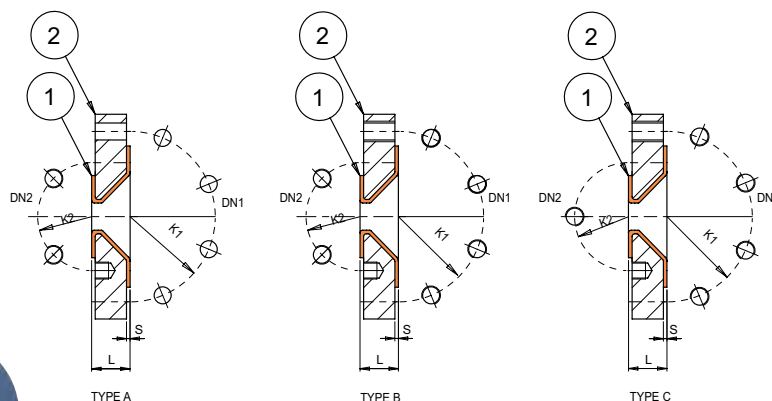
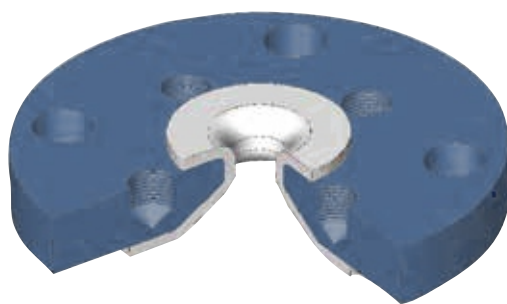
- One or Two loose langes
- EN DIN1092, PN40
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Reducing Flanges

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 ASTM A 105
- 2.1 St 37.0 - DIN 17100
- 2.2 40GGG / A216



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	PE	PP	Form	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%			
Inch	Inch	mm	mm	mm	mm	mm	mm	mm		Kg	
20	15	35	3.0	3.0					C	1.7	VLSGDLRF-15019-12
25	15	35	3.0	3.0					C	2.5	VLSGDLRF-15025-12
	20								C	2.4	VLSGDLRF-15025-19
32	20	35	3.0	3.0					C	3.8	VLSGDLRF-15032-19
	25								C	3.5	VLSGDLRF-15032-25
40	15	35	3.0	3.0					C	3.9	VLSGDLRF-15038-12
	20		3.5	3.0					C	4.0	VLSGDLRF-15038-19
	25								C	4.1	VLSGDLRF-15038-25
50	20	35	3.0	3.0					B	5.0	VLSGDLRF-15050-19
	25		3.5						B	4.9	VLSGDLRF-15050-25
	40								C	5.1	VLSGDLRF-15050-38
65	25	35	3.5	3.0					B	5.9	VLSGDLRF-15062-25
	40								C	5.6	VLSGDLRF-15062-38
	50								C	5.6	VLSGDLRF-15062-50
80	25	35	3.5	3.0					A	6.8	VLSGDLRF-15080-25
	40								B	6.6	VLSGDLRF-15080-38
	50								B	6.4	VLSGDLRF-15080-50

Available on request: • EN1092 DIN-<, PN40
• Stainless steel body and langes 304/316



Lined Reducing Flanges

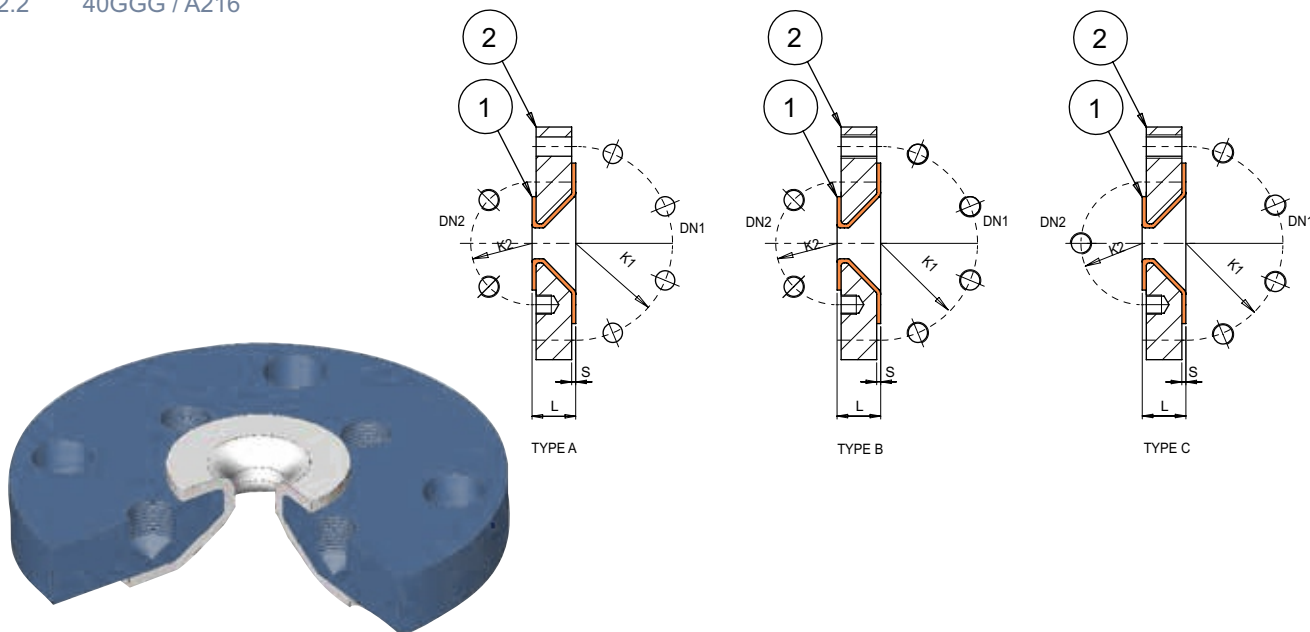
Materials:

1 PTFE white ASTM – D4894/5

2 ASTM A 105

2.1 St 37.0 - DIN 17100

2.2 40GGG / A216



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	PE	PP	Form	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%			
Inch	Inch	mm	mm	mm	mm	mm	mm	mm		Kg	
100	25	45	3.5	3.5					A	12.0	VLSGDLRF-150100-25
	40		4.0						A	12.0	VLSGDLRF-150100-38
	50								B	12.0	VLSGDLRF-150100-50
	80								C	10.0	VLSGDLRF-150100-80
125	25	45	3.5	3.0					A	16.0	VLSGDLRF-150125-25
	40		4						A	15.0	VLSGDLRF-150125-38
	50		5	4.0					A	14.0	VLSGDLRF-150125-50
	80								B	13.0	VLSGDLRF-150125-80
	100								C	13.0	VLSGDLRF-150125-100
150	25	45	3.5	3.0					A	21.0	VLSGDLRF-150150-25
	40		4						A	20.0	VLSGDLRF-150150-38
	50			4.0					A	19.0	VLSGDLRF-150150-50
	80		5						A	18.0	VLSGDLRF-150150-80
	100								B	17.0	VLSGDLRF-150150-100
200	25	45	3.5	3.0					A	29.0	VLSGDLRF-150200-25
	40		4						A	28.5	VLSGDLRF-150200-38
	50			4.0					A	28.0	VLSGDLRF-150200-50
	80		5						A	27.0	VLSGDLRF-150200-80
	100								A	25.0	VLSGDLRF-150200-100
	150								B	23.0	VLSGDLRF-150200-150

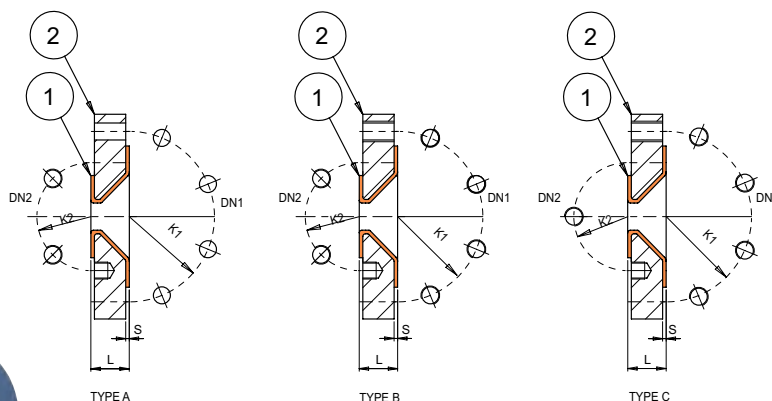
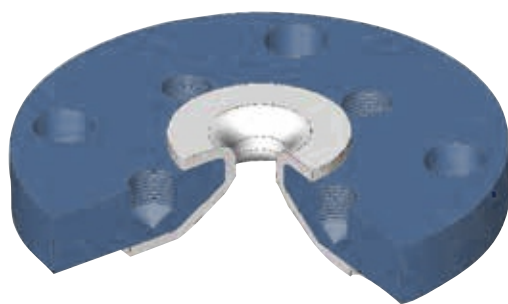
Available on request: • EN1092 DIN-< , PN40
• Stainless steel body and langes 304/316



Lined Reducing Flanges

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 ASTM A 105
- 2.1 St 37.0 - DIN 17100
- 2.2 40GGG / A216



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	PE	PP	Form	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%			
Inch	Inch	mm	mm	mm	mm	mm	mm	mm		Kg	
250	50	45	5.0	4.5					A	28.0	VLSGDLRF-150250-50
	80								A	24.0	VLSGDLRF-150250-80
	100								A	22.0	VLSGDLRF-150250-100
	150								A	19.0	VLSGDLRF-150250-150
	200								B	16.0	VLSGDLRF-150250-200
300	50	50	5.0	4.5					A	44.0	VLSGDLRF-150300-50
	80								A	38.0	VLSGDLRF-150300-80
	100								A	36.0	VLSGDLRF-150300-100
	150								A	31.0	VLSGDLRF-150300-150
	200								A	28.0	VLSGDLRF-150300-200
	250								B	24.0	VLSGDLRF-150300-250
	300								B	24.0	VLSGDLRF-150300-300
350	50	50	5.0	4.5					A	56.0	VLSGDLRF-150350-50
	80								A	50.0	VLSGDLRF-150350-80
	100								A	47.0	VLSGDLRF-150350-100
	150								A	42.0	VLSGDLRF-150350-150
	200								A	38.0	VLSGDLRF-150350-200
	250								A	35.0	VLSGDLRF-150350-250
	300								A	33.0	VLSGDLRF-150350-300
	350								B	33.0	VLSGDLRF-150350-300

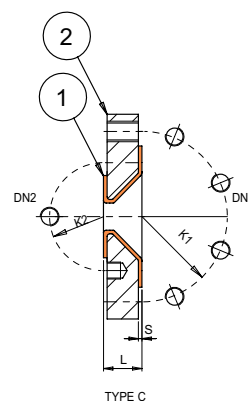
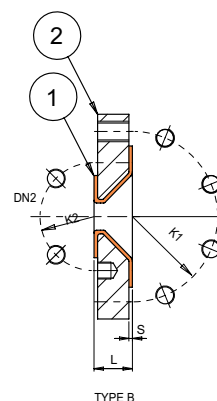
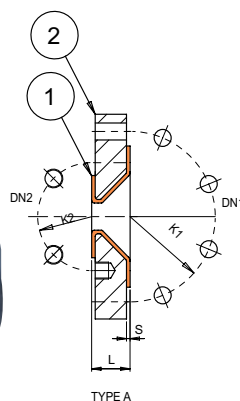
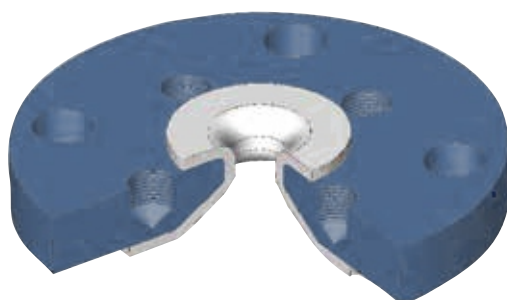
Available on request: • EN1092 DIN-< , PN40
• Stainless steel body and langes 304/316



Lined Reducing Flanges

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 ASTM A 105
- 2.1 St 37.0 - DIN 17100
- 2.2 40GGG / A216



LINING MATERIALS											
DN 1	DN 2	L	PTFE	PFA	ETFE	PVDF	PE	PP	Form	Weight	Part. No
			s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%			
Inch	Inch	mm	mm	mm	mm	mm	mm	mm		Kg	
400	80	50	5.0	4.5					A	71.0	VLSGDLRF-150400-80
	100								A	68.0	VLSGDLRF-150400-100
	150								A	62.0	VLSGDLRF-150400-150
	200								A	60.0	VLSGDLRF-150400-200
	250								A	55.0	VLSGDLRF-150400-250
	300								A	49.0	VLSGDLRF-150400-300
	350								B	40.0	VLSGDLRF-150400-350
450	100	50	5.0	4.5					A	77.0	VLSGDLRF-150450-100
	150								A	72.0	VLSGDLRF-150450-150
	200								A	70.0	VLSGDLRF-150450-200
	250								A	66.0	VLSGDLRF-150450-250
	300								A	58.0	VLSGDLRF-150450-300
	350								A	49.0	VLSGDLRF-150450-350
	400								B	44.0	VLSGDLRF-150450-400
500	100	50	5.0	4.5					A	93.0	VLSGDLRF-150500-100
	150								A	87.0	VLSGDLRF-150500-150
	200								A	86.0	VLSGDLRF-150500-200
	250								A	85.0	VLSGDLRF-150500-250
	300								A	77.0	VLSGDLRF-150500-300
	350								A	70.0	VLSGDLRF-150500-350
	400								A	62.0	VLSGDLRF-150500-400
600	150	50	5.0	4.5					A	139.0	VLSGDLRF-150600-150
	200								A	131.0	VLSGDLRF-150600-200
	250								A	128.0	VLSGDLRF-150600-250
	300								A	121.0	VLSGDLRF-150600-300
	350								A	105.0	VLSGDLRF-150600-350
	400								A	93.0	VLSGDLRF-150600-400
	450								A	84.0	VLSGDLRF-150600-450
	500								B	78.0	VLSGDLRF-150600-500

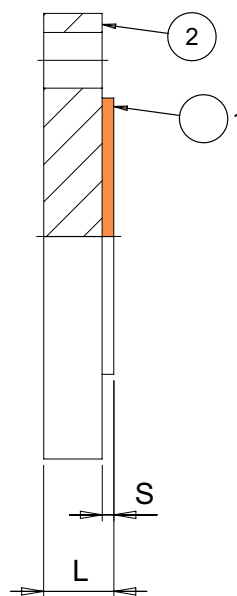
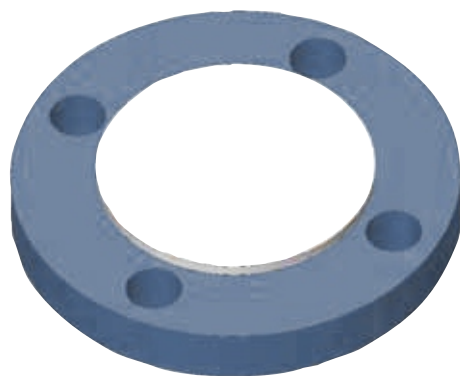
Available on request: • EN1092 DIN-< , PN40
• Stainless steel body and langes 304/316



Lined Blind Flanges

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 St 37.0 - DIN 17100
- 2.1 40GGG / A216



LINING MATERIALS				
DN 1	L	PTFE	Weight Kg	Part. No
		s ± 10%		
		mm		
15	14	4	0.8	VLSGDLBF-15012
20	16	4	0.9	VLSGDLBF-15019
25	17	4	1.2	VLSGDLBF-15025
32	19	4	1.8	VLSGDLBF-15032
42	20	4	2.1	VLSGDLBF-15038
50	22	4	3.0	VLSGDLBF-15050
65	25	4	4.0	LVLSGDBF-15062
80	28	4	5.0	VLSGDLBF-15080
100	28	5	6.0	VLSGDLBF-150100
125	28	5	9.1	VLSGDLBF-150125
150	30	5	11.8	VLSGDLBF-150150
200	33	5	18.0	VLSGDLBF-150200
250	35	5	26.0	VLSGDLBF-150250
300	37	5	35.0	VLSGDLBF-150300
350	40	5	45.0	VLSGDLBF-150350
400	42	5	60.0	VLSGDLBF-150400
450	45	5	70.0	VLSGDLBF-150450
500	48	5	85.0	VLSGDLBF-150500
600	50	5	150.0	VLSGDLBF-150600

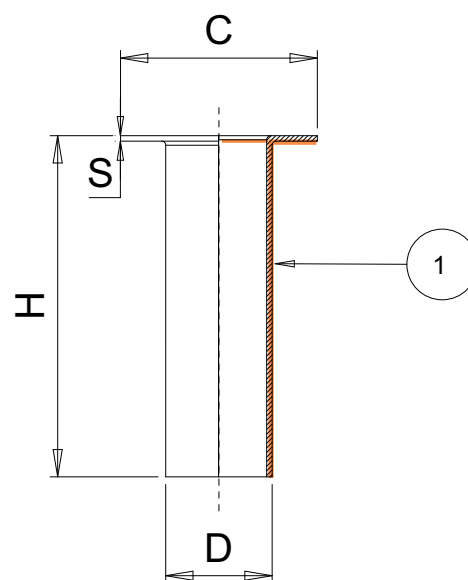
Available on request: • EN1092 DIN-< , PN40
• Stainless steel body and langes 304/316



Nozzle Liner

Materials:

- 1 PTFE white ASTM – D4894/5



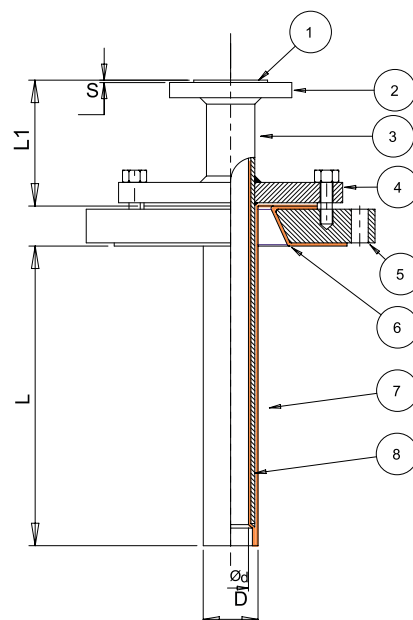
LINING MATERIALS					
Nozzle DN	D	C	H	S	Part. No
			max		
	mm	mm	mm	mm	
42	40	73	1500	3	VLSGDNL-15038
50	46	92	1500	3.5	VLSGDNL-15050
65	60	115	1500	4	VLSGDNL-15062
80	78	127	1500	4	VLSGDNL-15080
100	92	158	1500	4	VLSGDNL-150100
125	130	170	1500	4	VLSGDNL-150125
150	148	210	1500	4	VLSGDNL-150150
200	180	265	1500	6	VLSGDNL-150200
250	231	320	1500	6	VLSGDNL-150250
300	278	370	1500	6	VLSGDNL-150300
350	294	412	1000	6	VLSGDNL-150350
400	357	470	1000	6	VLSGDNL-150400
450	412	520	1000	6	VLSGDNL-150450
500	440	585	1000	6	VLSGDNL-150500



Lined Dip-Pipe

Materials:

- | | | | |
|-----|-------------------------------------|-----|-------------------------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 5.0 | A105 / ST37 |
| 1.2 | PTFE Granular white ASTM – D4895 | 6.0 | PTFE Paste white ASTM – D4895/D4894 |
| 1.3 | PFA ASTM D3307 | 6.1 | PTFE Granular white ASTM – D4895 |
| 1.4 | PVDF ASTM D3222 | 7.0 | PTFE Paste white ASTM – D4895/D4894 |
| 1.5 | PP ASTM D4101 | 7.1 | PTFE Granular white ASTM – D4895 |
| 2.0 | A105 / ST37 | 7.2 | PFA ASTM D3307 |
| 3.0 | A106 / API 5L | 7.3 | PVDF ASTM D3222 |
| 4.0 | A105 / ST37 | 7.4 | PP ASTM D4101 |
| | | 8.0 | ST37 / A106 / API 5L |



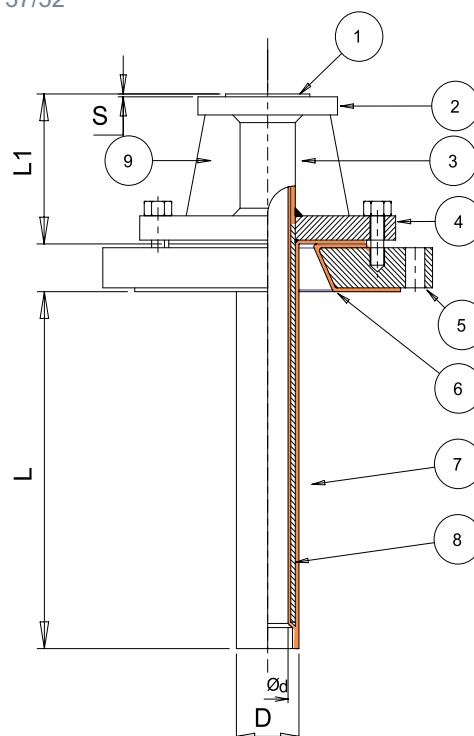
LINING MATERIALS								
Nozzle DN	DN2	Steel pipe	L max	L1				Part. No
					D	d	S	
			mm	mm	mm	mm	mm	
25	please indicate in your request	33.4 * 3.38	5000	150	40	20	3	VLSGDLDP-15025
42		48.26 * 3.88	5000	150	56	33.5	3.5	VLSGDLDP-15038
50		60.33 * 3.91	5000	150	69	44.5	4	VLSGDLDP-15050
65		73.03 * 5.16	5000	150	81	54.7	4	VLSGDLDP-15062
80		88.9 * 5.49	5000	150	97	70	4	VLSGDLDP-15080
100		114.3 * 6.02	4000	150	123	94.3	4	VLSGDLDP-150100
125		141.3 * 6.55	4000	150	150	120	4	VLSGDLDP-150125
150		168.3 * 7.11	4000	150	177	146	4	VLSGDLDP-150150
200		219.08 * 8.18	4000	150	227	195	4	VLSGDLDP-150200
250		273.05 * 9.27	3000	150	281	246.5	4	VLSGDLDP-150250
300		323.95 * 9.53	3000	150	332	297	4	VLSGDLDP-150300
350		355.6 * 9.53	3000	150	364	328.5	4	VLSGDLDP-150350
400		406.4 * 9.53	3000	150	364	379	4	VLSGDLDP-150400
450		457.2 * 9.53	3000	150	466	430	4	VLSGDLDP-150450
500		506 * 9.53	3000	150	515	479	4	VLSGDLDP-150500



Lined Dip-Pipe Heavy Duty

Materials:

- | | | | |
|-----|-------------------------------------|-----|-------------------------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 6.1 | PTFE Granular white ASTM – D4895 |
| 1.2 | PTFE Granular white ASTM – D4895 | 7.0 | PTFE Paste white ASTM – D4895/D4894 |
| 1.3 | PFA ASTM D3307 | 7.1 | PTFE Granular white ASTM – D4895 |
| 1.4 | PVDF ASTM D3222 | 7.2 | PFA ASTM D3307 |
| 1.5 | PP ASTM D4101 | 7.3 | PVDF ASTM D3222 |
| 2.0 | A105 / ST37 | 7.4 | PP ASTM D4101 |
| 3.0 | A106 / API 5L | 8.0 | ST37 / A106 / API 5L |
| 4.0 | A105 / ST37 | 9.0 | ST37/52 |
| 5.0 | A105 / ST37 | | |
| 6.0 | PTFE Paste white ASTM – D4895/D4894 | | |



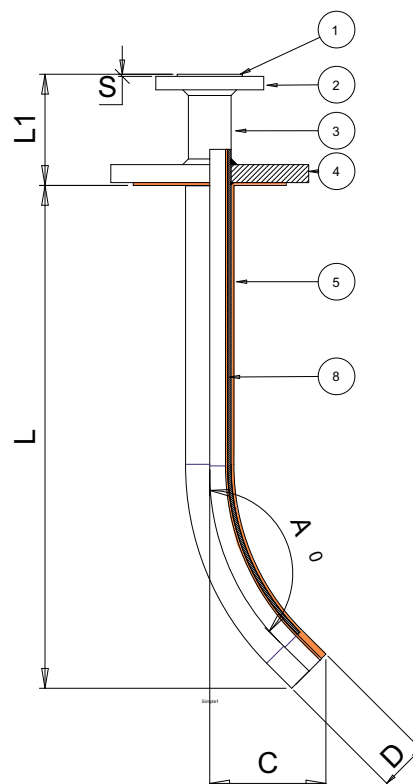
LINING MATERIALS								
Nozzle DN	DN2	Steel pipe	L max	L1				Part. No
					D	d	S	
					mm	mm	mm	
25	please indicate in your request	33.4 * 4.55	5000	150	40	18	3	VLSGDLDPHD-15025
42		48.26 * 5.08	5000	150	56	31	3.5	VLSGDLDPHD-15038
50		60.33 * 5.54	5000	150	69	41.3	4	VLSGDLDPHD-15050
65		73.03 * 7.01	5000	150	81	51	4	VLSGDLDPHD-15062
80		88.9 * 7.62	5000	150	97	65.6	4	VLSGDLDPHD-15080
100		114.3 * 8.56	4000	150	123	89.2	4	VLSGDLDPHD-150100
125		141.3 * 9.53	4000	150	150	114	4	VLSGDLDPHD-150125
150		168.3 * 10.97	4000	150	177	138	4	VLSGDLDPHD-150150
200		219.08 * 12.7	4000	150	227	185.6	4	VLSGDLDPHD-150200



Lined Bended Dip-Pipe

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 PVDF ASTM D3222
- 1.5 PP ASTM D4101
- 2.0 A105 / ST37
- 3.0 A106 / API 5L
- 4.0 A105 / ST37
- 5.0 PTFE Paste white ASTM – D4895/D4894
- 5.1 PTFE Granular white ASTM – D4895
- 5.2 PFA ASTM D3307
- 5.3 PVDF ASTM D3222
- 5.4 PP ASTM D4101
- 8.0 ST37 / A106 / API 5L



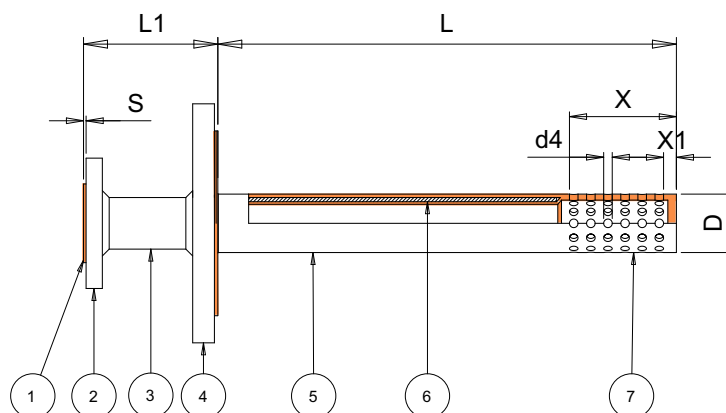
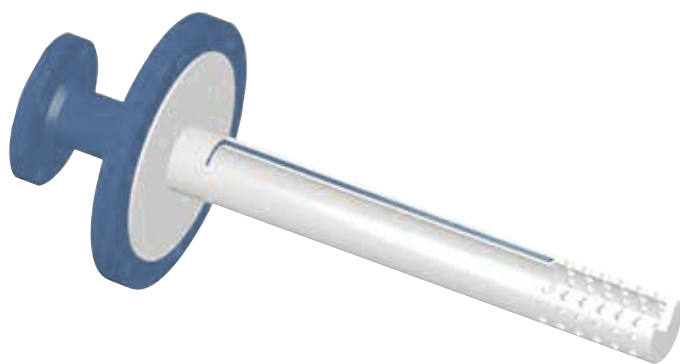
Nozzle DN	DN2	Steel pipe	L max	L1	D	A	S	S	Part. No
			mm	mm	mm	deg	mm	mm	
25	please indicate in your request	33.4 * 3.38	2000	150	40	60	500	3	VLSGDLBDP-15025
42		48.26 * 3.88	2000	150	56	60	500	3.5	VLSGDLBDP-15038
50		60.33 * 3.91	2000	150	69	60	500	4	VLSGDLBDP-15050
65		73.03 * 5.16	800	150	81	60	400	4	VLSGDLBDP-15062
80		88.9 * 5.49	800	150	97	60	400	4	VLSGDLBDP-15080
100		114.3 * 6.02	800	150	123	60	400	4	VLSGDLBDP-150100
125		141.3 * 6.55	800	150	150	60	300	4	VLSGDLBDP-150125
150		168.3 * 7.11	800	150	177	60	300	4	VLSGDLBDP-150150
200		219.08 * 8.18	800	150	227	60	250	4	VLSGDLBDP-150200
250		273.05 * 9.27	800	150	281	60	250	4	VLSGDLBDP-150250
300		323.95 * 9.53	800	150	332	60	150	4	VLSGDLBDP-150300
350		355.6 * 9.53	800	150	364	60	150	4	VLSGDLBDP-150350



Lined Sprager

Materials:

- | | | | |
|-----|-------------------------------------|-----|-------------------------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 5.4 | PP ASTM D4101 |
| 1.2 | PTFE Granular white ASTM – D4895 | 8.0 | ST37 / A106 / API 5L |
| 1.3 | PFA ASTM D3307 | 6.0 | PTFE Paste white ASTM – D4895/D4894 |
| 1.4 | PVDF ASTM D3222 | 6.1 | PTFE Granular white ASTM – D4895 |
| 1.5 | PP ASTM D4101 | 6.2 | PFA ASTM D3307 |
| 2.0 | A105 / ST37 | 6.3 | PVDF ASTM D3222 |
| 3.0 | A106 / API 5L | 6.4 | PP ASTM D4101 |
| 4.0 | A105 / ST37 | 7.0 | PTFE Granular white ASTM – D4895 |
| 5.0 | PTFE Paste white ASTM – D4895/D4894 | 7.1 | PFA ASTM D3307 |
| 5.1 | PTFE Granular white ASTM – D4895 | 7.2 | PVDF ASTM D3222 |
| 5.2 | PFA ASTM D3307 | 7.3 | PP ASTM D4101 |
| 5.3 | PVDF ASTM D3222 | | |



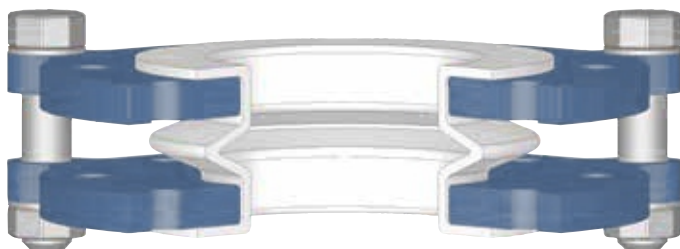
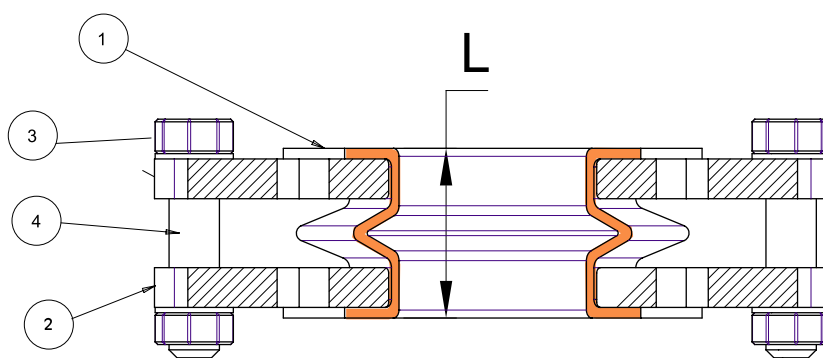
LINING MATERIALS										
Nozzle DN	DN2	Steel pipe	L max	L1						Part. No
					D	X	X1	d4	S	
					mm	max	min	max	mm	
25	please indicate in your request	33.4 * 3.38	3000	150	40	300	15	4	3	VLSGDLSr-15025
42		48.26 * 3.88	3000	150	56	300	150	4	3.5	VLSGDLSr-15038
50		60.33 * 3.91	3000	150	69	300	20	6	4	VLSGDLSr-15050
65		73.03 * 5.16	3000	150	81	300	20	6	4	VLSGDLSr-15062
80		88.9 * 5.49	3000	150	97	300	20	8	4	VLSGDLSr-15080
100		114.3 * 6.02	3000	150	123	300	20	8	4	VLSGDLSr-150100
125		141.3 * 6.55	3000	150	150	300	20	8	4	VLSGDLSr-150125
150		168.3 * 7.11	3000	150	177	300	20	10	4	VLSGDLSr-150150
200		219.08 * 8.18	3000	150	227	300	20	10	4	VLSGDLSr-150200
250		273.05 * 9.27	1000	150	281	300	20	10	4	VLSGDLSr-150250
300		323.95 * 9.53	1000	150	332	150	30	14	4	VLSGDLSr-150300
350		355.6 * 9.53	1000	150	364	150	30	14	4	VLSGDLSr-150350
400		406.4 * 9.53	1000	150	364	150	30	16	4	VLSGDLSr-150400
450		457.2 * 9.53	1000	150	466	150	30	16	4	VLSGDLSr-150450
500		506 * 9.53	1000	150	515	150	30	16	4	VLSGDLSr-150500



Bellow Con 1

Materials:

- 1 PTFE white ASTM - D4894/5
- 2 A105 / ST37
- 2.1 St 37.0 - DIN 17100
- 3.0 Coated Steel Bolt
- 4.0 SS316



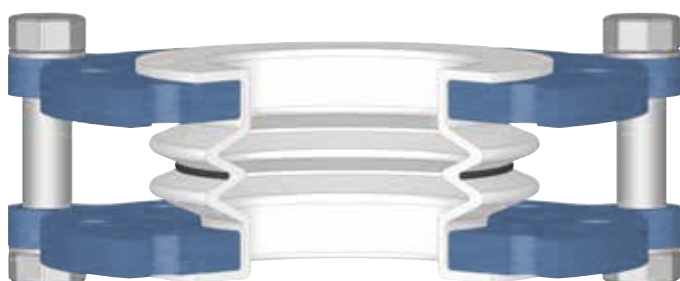
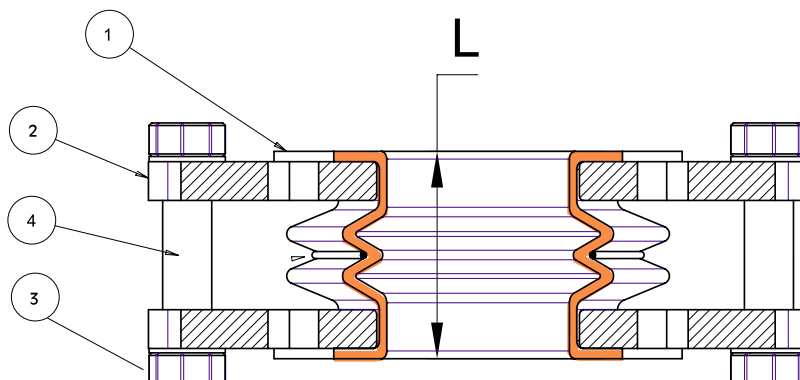
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar		Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
25	40	5	2	2	15	5	VLSGDBC-1-15025
42	40	5	2	2	15	5	VLSGDBC-1-15040
50	48	6	2	2	14	5	VLSGDBC-1-15050
80	60	7	3	3	12	4	VLSGDBC-1-15080
100	64	8	3	3	12	4	VLSGDBC-1-150100
150	75	8	4	4	9	3	VLSGDBC-1-150150
200	85	10	4	4	6	2	VLSGDBC-1-150200
250	92	10	5	3	6	2	VLSGDBC-1-150250
300	100	12	5	3	6	2	VLSGDBC-1-150300
350	102	12	5	3	4	1.5	VLSGDBC-1-150350
400	102	12	5	3	4	1.5	VLSGDBC-1-150400
450	104	12	5	3	3	0.75	VLSGDBC-1-150450
500	104	12	5	3	2	0.75	VLSGDBC-1-150500
600	104	12	5	3	2	0.75	VLSGDBC-1-150600



Bellow Con 2

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 A105 / ST37
- 2.1 St 37.0 - DIN 17100
- 3.0 Coated Steel Bolt
- 4.0 SS316



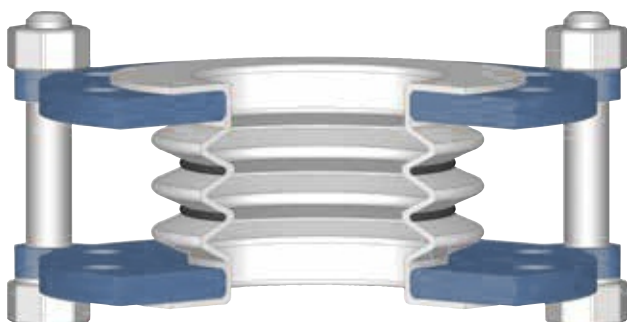
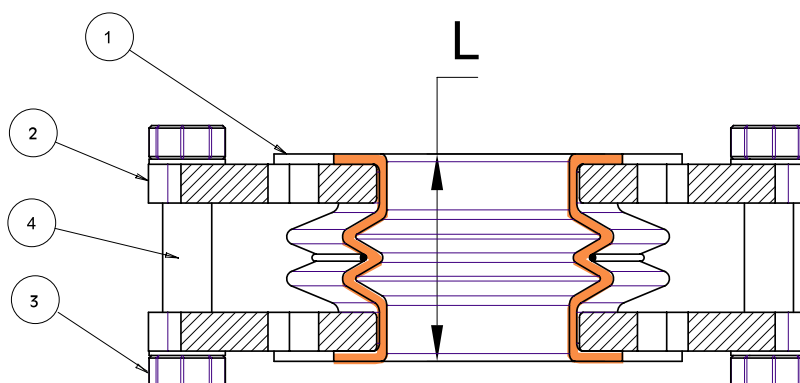
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar		Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
25	35	6	3	7	14.5	4.5	VLSGDBC-2-15025
42	35	6	3	7	14.5	4.5	VLSGDBC-2-15040
50	40	6	3	7	13.5	4.5	VLSGDBC-2-15050
80	57	9	5	7	11.5	3.75	VLSGDBC-2-15080
100	67	13	6	7	11.5	3.75	VLSGDBC-2-150100
150	75	13	6	7	9	2.75	VLSGDBC-2-150150
200	102	13	6	7	6	2	VLSGDBC-2-150200
250	140	15	6	7	6	2	VLSGDBC-2-150250
300	150	20	10	7	6	1.75	VLSGDBC-2-150300
350	160	20	10	7	4	1.25	VLSGDBC-2-150350
400	178	25	10	7	4	1.25	VLSGDBC-2-150400
450	185	25	10	7	3	0.5	VLSGDBC-2-150450
500	230	25	10	7	2	0.5	VLSGDBC-2-150500
600	160	20	10	7	2	0.5	VLSGDBC-2-150600



Bellow Con 3

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 A105 / ST37
- 2.1 St 37.0 - DIN 17100
- 3.0 Coated Steel Bolt
- 4.0 SS316



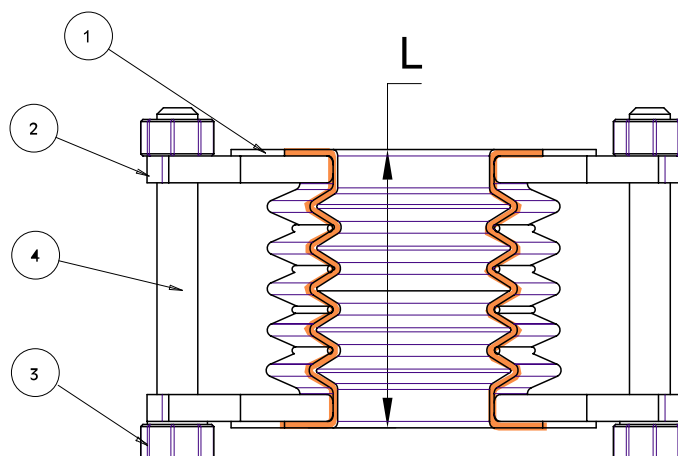
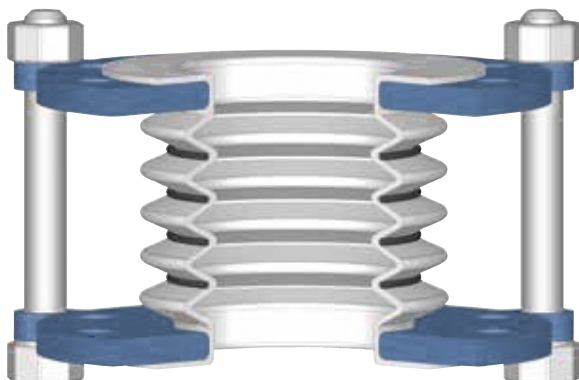
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
25	46	10	6	14	12	4	VLSGDBC-3-15025
42	46	15	6	14	12	4	VLSGDBC-3-15040
50	56	15	9	14	12	4	VLSGDBC-3-15050
80	77	25	13	14	10	3.5	VLSGDBC-3-15080
100	91	25	13	14	10	3.5	VLSGDBC-3-150100
150	101	28	12	14	8	3	VLSGDBC-3-150150
200	137	28	14	14	6	2	VLSGDBC-3-150200
250	200	30	14	14	6	2	VLSGDBC-3-150250
300	196	30	15	14	5	1.5	VLSGDBC-3-150300
350	215	32	18	14	3	1	VLSGDBC-3-150350
400	233	34	20	14	3	1	VLSGDBC-3-150400
450	280	34	20	14	2.5	0.75	VLSGDBC-3-150450
500	327	32	25	14	2	0.5	VLSGDBC-3-150500
600	302	32	25	14	2	0.5	VLSGDBC-3-150600



Bellow Con 5

Materials:

- 1 PTFE white ASTM – D4894/5
- 2 A105 / ST37
- 2.1 St 37.0 - DIN 17100
- 3.0 Coated Steel Bolt
- 4.0 SS316



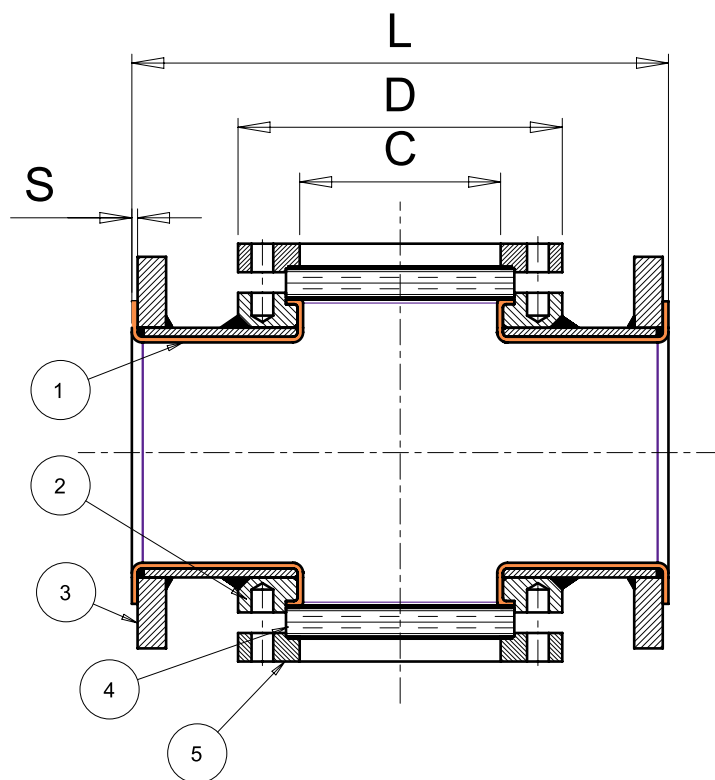
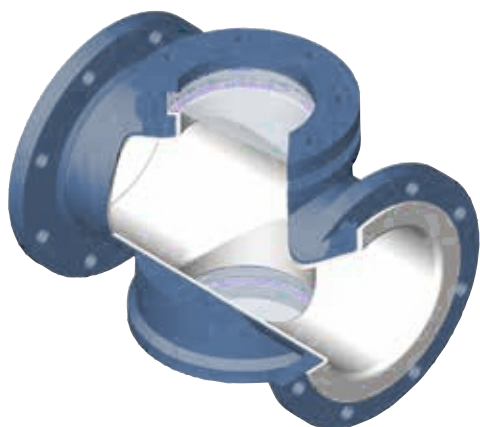
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
25	68	8	12	20	9	3	VLSGDBC-5-15025
42	80	13	12	20	9	3	VLSGDBC-5-15040
50	88	19	12	20	9	3	VLSGDBC-5-15050
80	113	25	16	20	7.5	2.5	VLSGDBC-5-15080
100	139	25	16	20	7.5	2.5	VLSGDBC-5-150100
150	153	32	16	20	6	2.5	VLSGDBC-5-150150
200	207	32	16	20	4	1.5	VLSGDBC-5-150200
250	300	32	16	20	4	1.5	VLSGDBC-5-150250
300	288	35	16	20	4	1.5	VLSGDBC-5-150300
350	325	35	18	20	2.75	0.75	VLSGDBC-5-150350
400	343	40	25	20	2.75	0.75	VLSGDBC-5-150400
450	470	40	25	20	2.75	0.5	VLSGDBC-5-150450
500	520	40	25	20	1	0.3	VLSGDBC-5-150500
600	520	32	20	20	1	0.3	VLSGDBC-5-150600



Lined Sight Glass

Materials:

1.1	PTFE Paste white ASTM – D4895/D4894	2	St 37.0 - DIN 1629
1.2	PTFE Granular white ASTM – D4895	2.1	GGG40/ A216
1.3	PFA ASTM D3307	3	DIN, PN10 SLIP-ON
1.4	ETFE ASTM D3159	3.1	DIN, PN10 WELD-NECK
1.5	PVDF ASTM D3222	4.0	Tempered Glass / BOROSILICATE
1.6	PP ASTM D4101	5.0	A105 / ST37
1.7	XLPE ASTM D1998-04		
1.8	PE ASTM D1998-04		



	D	L	C	S
DN				
25	115	160	48	3
32	140	180	48	3
40	150	200	65	3
50	165	230	80	3
65	185	290	80	3
80	200	310	100	3
100	225	350	125	3
150	285	480	137	3
200	340	600	*	3
250	*	*	*	3
300	*	*	*	3
400	*	*	*	3

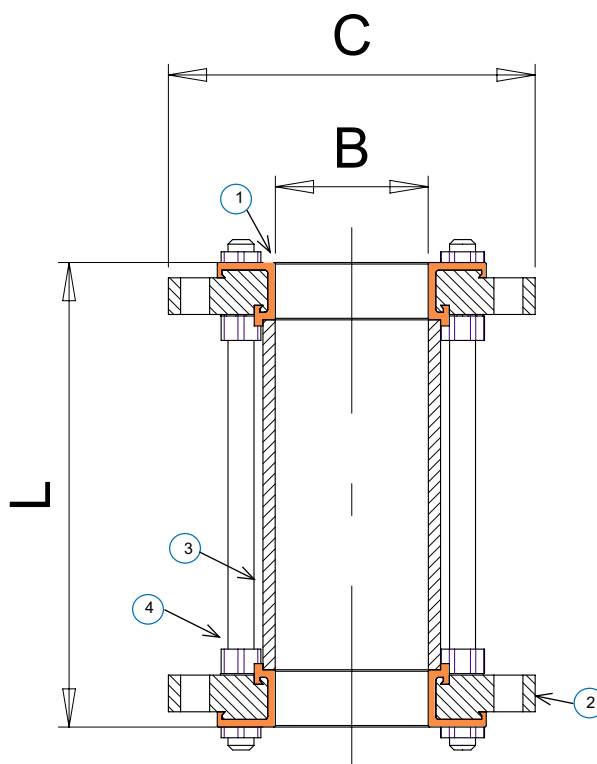
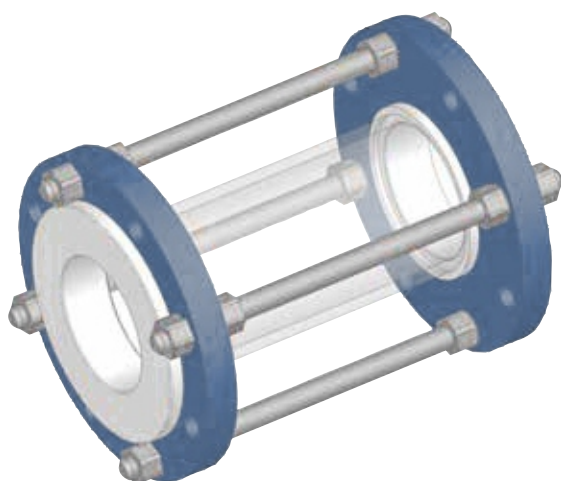
*UPON CUSTOMER REQUEST



Lined Tubular Glass

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 2.0 A105 / ST37
- 3.0 Tempered Glass / BOROSILICATE
- 4.0 Coated Steel Bolt



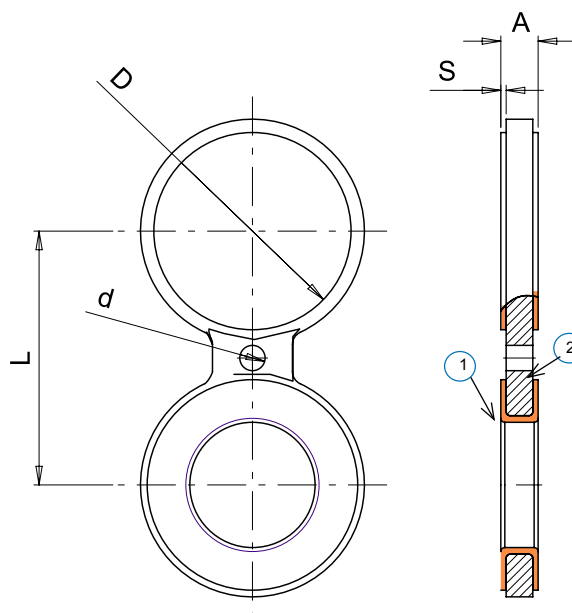
LINING MATERIALS						
DN	L mm	S mm	C mm	D mm	Weight Kg	Part. No
25	180	3	40	120	4.2	VLSGDLTG-15025
42	205	3	48	128	7.5	VLSGDLTG-15040
50	230	4	80	164	12.0	VLSGDLTG-15050
80	280	4	100	185	25.5	VLSGDLTG-15080
100	310	4.5	125	215	45.0	VLSGDLTG-150100
125	406	5	137	242	90.0	VLSGDLTG-150150
150	458	6	165	270	130.0	VLSGDLTG-150200
250	530	6	215	320	170.0	VLSGDLTG-150250
300	610	6	265	370	240.0	VLSGDLTG-150300
350	690	6	315	430	330.0	VLSGDLTG-150350
400	740	6	360	470	395.0	VLSGDLTG-150400
450	812	6	410	520	495.0	VLSGDLTG-150450
500	870	5	460	570	625.0	VLSGDLTG-150500



Lined Spectacle

Materials:

- | | | | |
|-----|-------------------------------------|-----|--------------------|
| 1.1 | PTFE Paste white ASTM – D4895/D4894 | 1.7 | XLPE ASTM D1998-04 |
| 1.2 | PTFE Granular white ASTM – D4895 | 1.8 | PE ASTM D1998-04 |
| 1.3 | PFA ASTM D3307 | 2 | St 37.0 - DIN 1629 |
| 1.4 | ETFE ASTM D3159 | 2.1 | SS304 / SS316 |
| 1.5 | PVDF ASTM D3222 | | |
| 1.6 | PP ASTM D4101 | | |



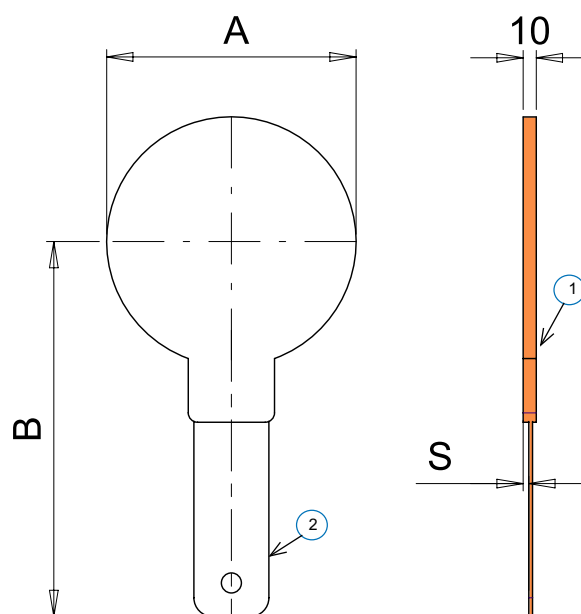
LINING MATERIALS						
DN	A mm	L mm	D mm	d mm	S mm	Part. No
25	20	79.4	51	15.9	3	VLSGDLS-15025
42	24	98.4	73	15.9	3	VLSGDLS-15040
50	24	120.6	92	19.0	4	VLSGDLS-15050
80	26	152.4	127	19.0	4	VLSGDLS-15080
125	28	190.5	158	19.0	5	VLSGDLS-150100
150	32	241.3	216	22.2	5	VLSGDLS-150150
200	32	299.4	270	22.2	5	VLSGDLS-150200
250	32	361.9	324	25.4	5	VLSGDLS-150250
300	35	431.8	381	25.4	5	VLSGDLS-150300
350	42	476.2	412	28.6	5	VLSGDLS-150350
400	47	539.7	470	28.6	5	VLSGDLS-150400
450	50	577.8	534	31.8	4	VLSGDLS-150450
500	52	635.0	584	31.8	4	VLSGDLS-150500
600	55	749.3	692	35.1	4	VLSGDLS-150600



Lined Spade

Materials:

1.1	PTFE Paste white ASTM – D4895/D4894	1.7	XLPE ASTM D1998-04
1.2	PTFE Granular white ASTM – D4895	1.8	PE ASTM D1998-04
1.3	PFA ASTM D3307	2	St 37.0 - DIN 1629
1.4	ETFE ASTM D3159	2.1	A 234 WPB
1.5	PVDF ASTM D3222		
1.6	PP ASTM D4101		



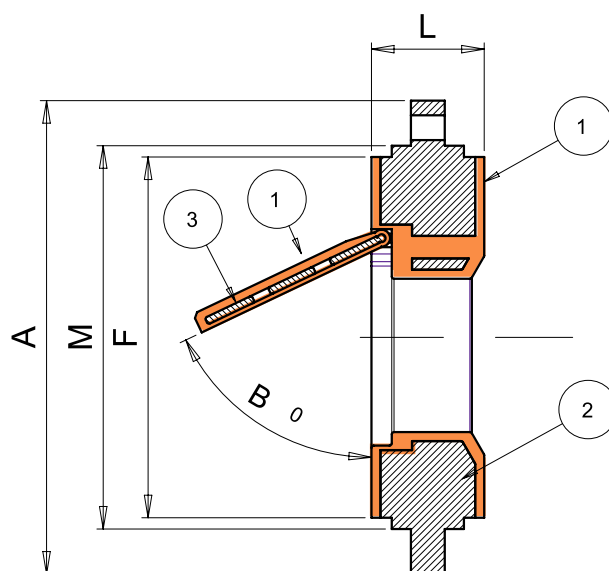
LINING MATERIALS			
DN	mm	mm	Part. No
25	50	53	VLSGDLSd-15025
40	190	76	VLSGDLSd-15040
50	100	95	VLSGDLSd-15050
80	120	130	VLSGDLSd-15080
100	155	160	VLSGDLSd-150100
150	170	220	VLSGDLSd-150150



Lined Swing Check Valve

Materials:

- 1.1 PTFE Paste white ASTM – D4895/D4894
- 1.2 PTFE Granular white ASTM – D4895
- 1.3 PFA ASTM D3307
- 1.4 ETFE ASTM D3159
- 2.0 ST37 / 52
- 3.0 ST37/52



Lined Swing Check Valve								
DN	L mm	C mm	A mm	F mm	M mm	Open angle	Weight Kg	Part. No
50	43	26	165	92	104	62	2.5	VLSGDLSCV-15050
80	46	45	200	127	140	65	4.2	VLSGDLSCV-15080
100	52	65	220	157	160	65	6.7	VLSGDLSCV-150100
150	56	104	285	216	214	65	11.5	VLSGDLSCV-150150
200	60	145	340	270	270	65	19.0	VLSGDLSCV-150200
250	68	185	395	324	322	65	29.0	VLSGDLSCV-150250
300	78	230	445	381	380	65	50.0	VLSGDLSCV-150300
350	78	232	505	438	440	65	63.0	VLSGDLSCV-150350
400	102	300	565	490	492	65	105.0	VLSGDLSCV-150400