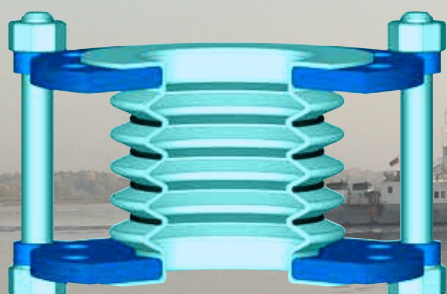
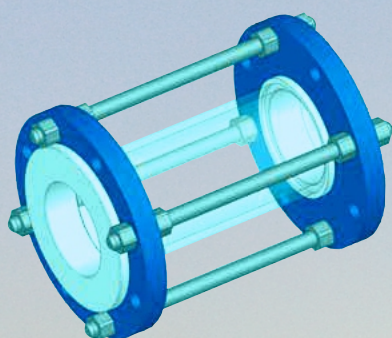




VELLES GROUP Sp. z o.o.

LINED PIPES & FITTINGS

ANSI Standard



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LINED PIPES & FITTINGS

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LINED PIPES & FITTINGS

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LINED PIPES & FITTINGS

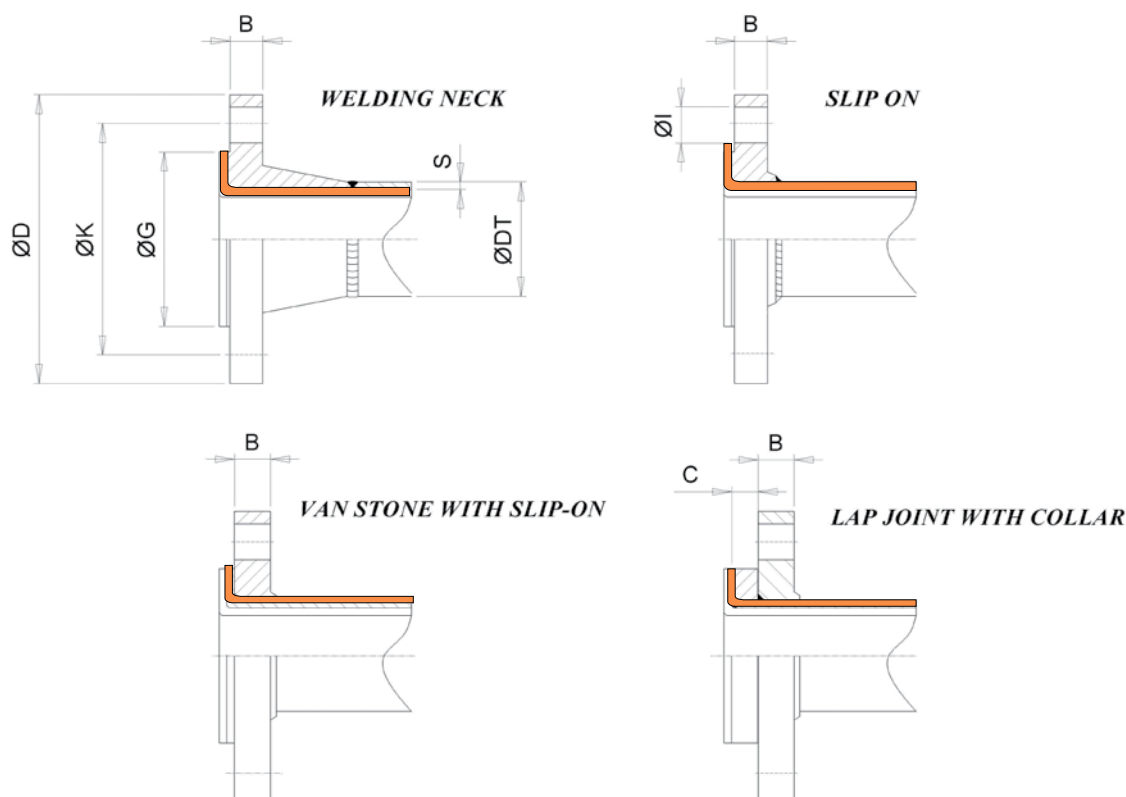


TABLE 1

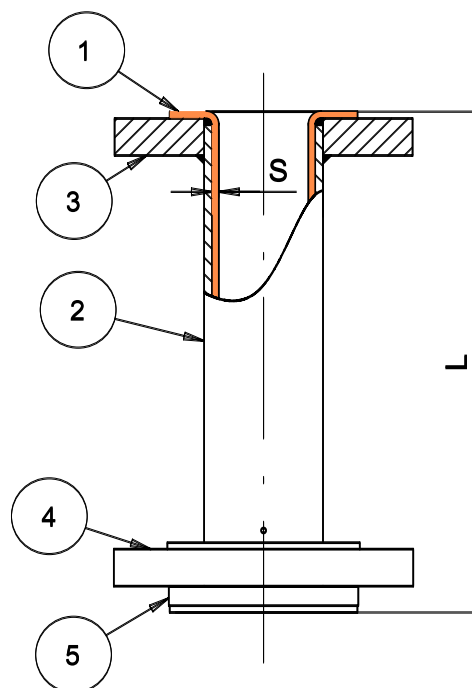
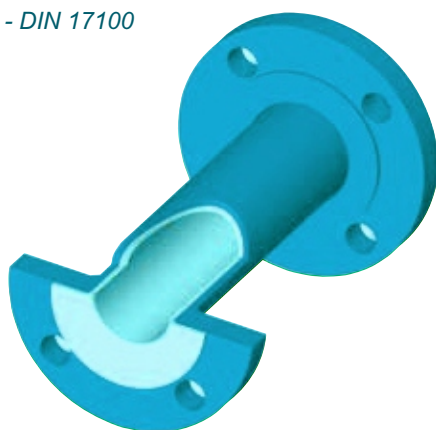
Nom Size	DT Mm	D mm	G mm	I n X i	B mm	C mm	S mm
1/2"	21,3	88,9	35,1	4X15,7	11,2	10	2.77
3/4"	26,7	98,6	42,9	4X15,7	12,7	12	2.87
1"	33,5	108	50,8	4X15,7	14,2	12	3.38
1 1/4"	42,2	117,3	63,5	4X15,7	15,7	12	3.56
1 1/2"	48,3	127	73,2	4X19,1	17,5	12	3.68
2"	60,5	152,4	91,9	4X19,1	19,1	14	3.91
2 1/2"	73,2	177,85	104,6	4X19,1	22,4	14	5.16
3"	88,9	190,5	127,0	4X19,1	23,9	16	5.49
3 1/2"	101,6	215,9	139,7	8X19,1	23,9	16	5.74
4"	114,3	228,6	157,2	8X22,4	23,9	16	6.02
5"	141,3	254	185,7	8X22,4	23,9	18	6.55
6"	168,4	279,4	215,9	8X22,4	25,4	18	7.11
8"	219,2	342,9	269,7	8X22,4	28,4	20	8.18
10"	273,1	406,4	323,9	12X25,4	30,2	22	9.27
12"	323,9	482,6	381,0	12X25,4	31,8	22	9.53
14"	355,6	533,4	412,8	12X25,4	35,1	25	9.53
16"	406,4	596,9	469,9	12X28,4	36,6	25	9.53
18"	457,2	635	533,4	16X31,8	39,6	25	9.53
20"	508	698,5	584,2	20X31,8	42,9	25	9.53
24"	609,6	812,8	269,2	20X35,1	47,8	25	9.53



PTFE 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 ASTM A 105 SLIP-ON
- 4 ASTM A 105 LAP-JOINT
- 5 St 37.0 - DIN 17100



NB	L min	PTFE LINING						WEIGHT for HD	
		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
1/2"	150	1,5	6,000	2.5	6,000	x	x	1.5	0.8
3/4"	150	1,5	6,000	3.0	6,000	x	x	2.0	1.2
1"	150	1,6	6,000	3.0	6,000	4	6,000	3.0	1.6
1.5"	150	1,7	6,000	3.0	6,000	4.5	6,000	4.8	2.6
2"	150	1,8	6,000	3.0	6,000	4.5	6,000	6.3	4.0
2.5"	200	2,2	6,000	3.0	6,000	4.5	6,000	10.0	6.6
3"	200	2,5	6,000	3.5	6,000	6.0	6,000	13.0	8.0
4"	200	3,2	6,000	4.5	6,000	6.5	6,000	19.0	11.0
5"	200	3,4	6,000	4.5	6,000	6.5	6,000	24.5	12.0
6"	300	4.0	6,000	5.0	6,000	7.5	6,000	32.0	15.0
8"	150	5.0	6,000	6.2	6,000	10.0	1,500	48.0	27.0
10"	150	4,0 w	5,000	6.8	3,500	11.0	1,000	69.0	36.0
12"	180	4,0 w	5,000	8.0	3,500	12.0	1,000	87.0	57.0
14"	180	4,0 w	5,000	9.0	3,500	12.0	1,000	95.0	76.0
16"	200	4,0 w	5,000	10.0	1,000	12.0	1,000	108.0	97.0
18"	200	4,0 w	5,000	10.0	1,000	12.0	1,000	123.0	110.0
20"	250	4,0 w	5,000	10.0	1,000	12.0	1,000	137.0	134.0
24"	250	4,0 w	5,000	10.0	1,000	12.0	1,000	167.0	195.0

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

Available on request : • Two fixed or two loosed flanges

• ANSI B16.5 Class 300 flanges

• Stainless steel body and flanges 304/316

• Longer lengths than 6000 mm

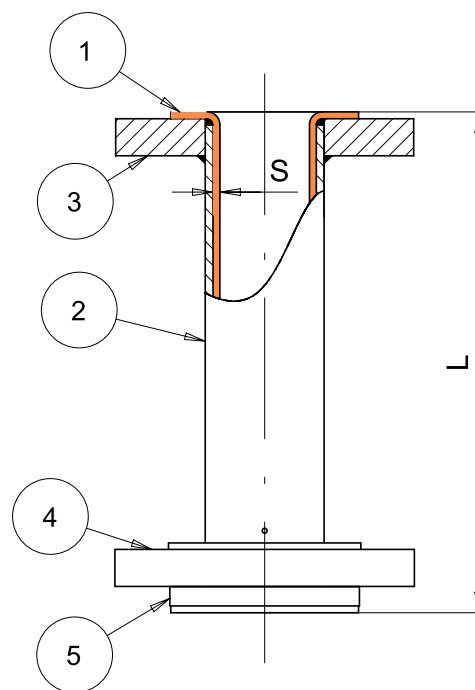
Part Number: VLSGPLPxxx-xxxx - Where XXX are Dia – Length (in mm)



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 ASTM A 105 SLIP-ON
- 4 ASTM A 105 LAP-JOINT
- 5 St 37.0 - DIN 17100



ANSI B16.5 - Class 150#										
DN	L min	Lining materials							PIPE	2 FLANGES
		PFA	ETFE	PVDF	PP	XLPE	PE	L max		
	mm	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	s ± 10%	mm	Kg/m	Kg
1/2"	×	×	×	×	×	×	×	×	×	×
3/4"	×	×	×	×	×	×	×	×	×	×
1"	×	×	×	×	×	×	×	×	×	×
1 1/4"	×	×	×	×	×	×	×	×	×	×
1 1/2"	100	3.0	3.0	3.0	3.0	3.0	3.0	1,000	4.8	3.3
2"	100	3.0	3.0	3.0	3.0	3.0	3.0	1,000	6.3	5.3
2 1/2"	110	3.0	3.0	3.0	3.0	3.0	3.0	1,200	10.0	7.3
3"	110	4.5	4.5	4.5	4.5	4.5	4.5	2,000	13.0	8.4
4"	120	4.5	4.5	4.5	4.5	4.5	4.5	2,250	19.0	13.0
5"	120	4.5	4.5	4.5	4.5	4.5	4.5	2,250	24.5	15.6
6"	130	6.0	6.0	6.0	6.0	6.0	6.0	2,250	32.0	19.5
8"	150	6.0	6.0	6.0	6.0	6.0	6.0	2,250	48.0	30.0
10"	150	6.0	6.0	6.0	6.0	6.0	6.0	2,250	69.0	43.0
12"	180	8.0	8.0	8.0	8.0	8.0	8.0	2,250	87.0	63.0
14"	180	8.0	8.0	8.0	8.0	8.0	8.0	2,250	95.0	89.0
16"	200	8.0	8.0	8.0	8.0	8.0	8.0	2,250	108.0	97.0
18"	200	8.0	8.0	8.0	8.0	8.0	8.0	2,250	123.0	128.0
20"	250	8.0	8.0	8.0	8.0	8.0	8.0	2,250	137.0	163.0
24"	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 loosed langes

• ANSI B16.5 Class 300 langes

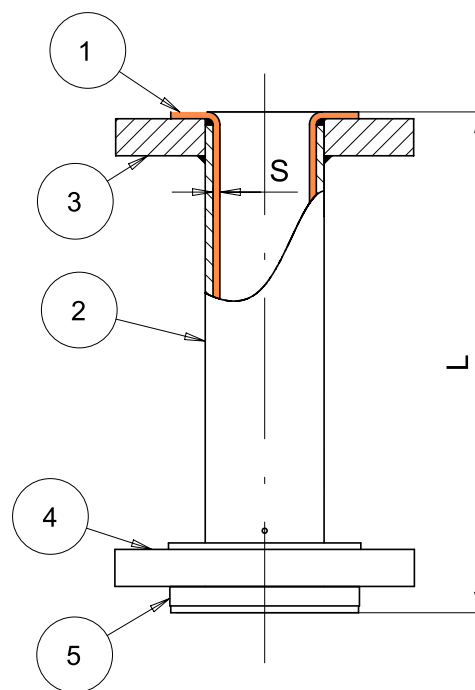
• Stainless steel body and langes 304/316



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 ASTM A 105 SLIP-ON
- 4 ASTM A 105 LAP-JOINT
- 5 St 37.0 - DIN 17100



ANSI B16.5 - Class 150#									
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
1/2"	x	1.5	1.5	1.5	-	-	4,500	×	×
3/4"	x	1.9	1.9	1.9	3.0	3.0	4,500	×	×
1"	x	1.9	1.9	1.9	3.0	3.0	4,500	×	×
1 1/4"	x	2.4	2.4	2.4	3.0	3.0	4,500	×	×
1 1/2"	100	2.4	2.4	2.4	3.0	3.0	4,500	4.8	3.3
2"	100	3.0	3.0	3.0	3.0	3.0	4,500	6.3	5.3
2 1/2"	110	3.0	3.0	3.0	3.0	3.0	4,500	10.0	7.3
3"	110	3.6	3.6	3.6	4.0	4.0	4,500	13.0	8.4
4"	120	5.3	5.3	5.3	5.0	5.0	4,500	19.0	13.0
5"	120	3.9	3.9	3.9	5.0	5.0	4,500	24.5	15.6
6"	130	4.4	4.4	4.4	5.0	5.0	4,500	32.0	19.5
8"	150	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	48.0	30.0
10"	150	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	69.0	43.0
12"	180	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	87.0	63.0
14"	180	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	95.0	89.0
16"	200	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	108.0	97.0
18"	200	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	123.0	128.0
20"	250	3,0 w	3,0 w	3,0 w	4,0 w	4,0 w	3,000	137.0	163.0
24"	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)

Available on request: • Two fixed or two loose flanges

• ANSI B16.5 Class 300 flanges

• Stainless steel body and flanges 304/316

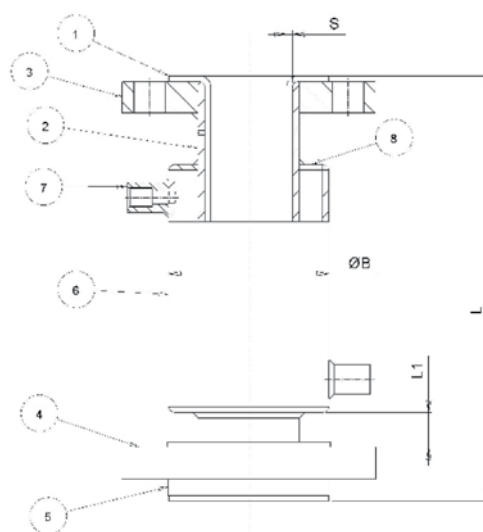
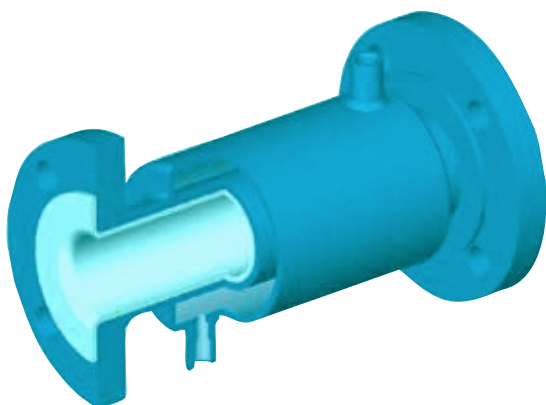
Part Number: VLSGPLPxxx-xxxx - Where XXX are Dia – Length (in mm)



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 | ASTM A 105 SLIP-ON |
| 1.4 | ETFE ASTM D3159 | 4 | ASTM A 105 LAP-JOINT |
| 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	
1"	250	6000	2	40	3.0	3.5	3.0	3.0	VLSGAJLP-15025
1 1/2"	250	6000	2 1/2	40	3.0	4.0	3.0	3.0	VLSGAJLP-15038
2"	250	6000	3	40	3.0	4.0	3.5	3.5	VLSGAJLP-15050
3"	300	6000	5	50	3.5	5.0	4.0	4.0	VLSGAJLP-15080
4"	300	6000	6	50	4.5	5.0	4.5	4.5	VLSGAJLP-150100
6"	300	6000	8	50	5.0	5.0	5.0	5.0	VLSGAJLP-150150
8"	300	6000	10	50	6.5	5.0	5.0	5.0	VLSGAJLP-150200
10"	300	3500	12	50	6.5	5.0	5.0	5.0	VLSGAJLP-150250

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

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316



Solid And Lined Spacers

Materials:

1.1 PTFE Granular white ASTM – D4895

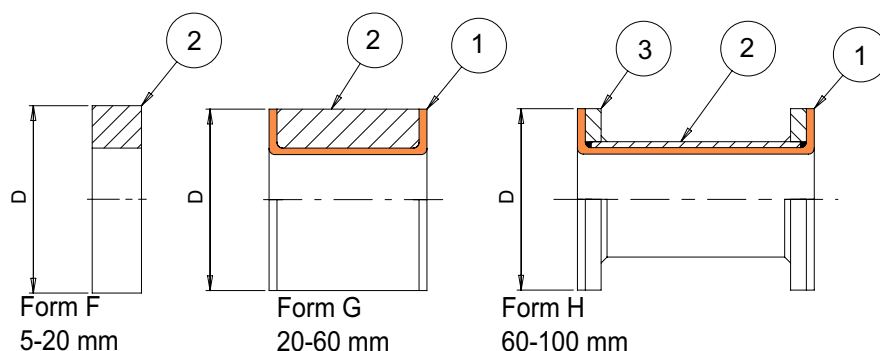
1.2 PVDF ASTM D3222

1.3 PP ASTM D4101

2 St 37.0 - DIN 1629

2.1 APL 5 L Gr.B

3 St 37.0 - DIN 17100



ANSI B16.5 - Class 150#					
DN	D	PTFE	PVDF	PP	Part. No
		s ± 10%	s ± 10%	s ± 10%	
		mm	mm	mm	
1/2"	40	4	4	4	VLSGASLS-15012
3/4"	50	4	4	4	VLSGASLS-15019
1"	55	4	4	4	VLSGASLS-15025
1 1/4 "	68	4	4	4	VLSGASLS-15032
1 1/2 "	75	4	4	4	VLSGASLS-15038
2"	95	4	4	4	VLSGASLS-15050
2 1/2 "	108	4	4	4	VLSGASLS-15062
3"	130	4	4	4	VLSGASLS-15080
4"	162	5	5	5	VLSGASLS-150100
5"	190	5	5	5	VLSGASLS-150125
6"	218	5	5	5	VLSGASLS-150150
8"	273	5	5	5	VLSGASLS-150200
10"	336	5	5	5	VLSGASLS-150250
12"	406	5	5	5	VLSGASLS-150300
14"	447	5	5	5	VLSGASLS-150350
16"	511	5	5	5	VLSGASLS-150400
18"	546	5	5	5	VLSGASLS-150450
20"	603	5	5	5	VLSGASLS-150500
24"	714	5	5	5	VLSGASLS-150600

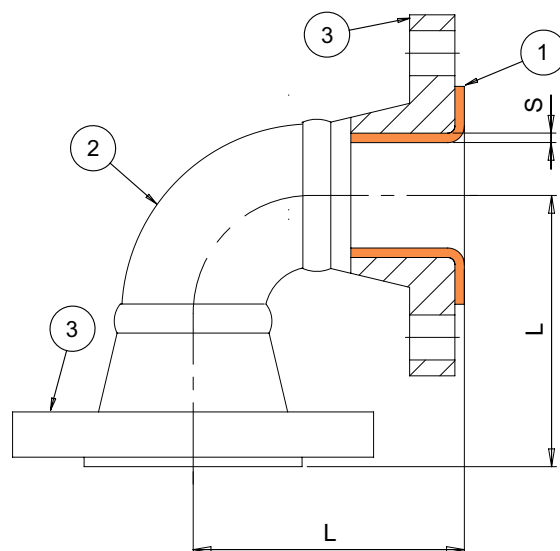
Available on request: • Stainless steel body and langes 304/316
• Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
1/2"	75	2.5	X	X	3.0	X	X	X	1.5	VLSGALE90-15013
3/4"	89	3.0	X	X	3.0	X	X	X	2.0	VLSGALE90-15019
1"	89	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	VLSGALE90-15025
1 1/5"	102	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	VLSGALE90-15038
2"	114	4.0	3.5	3.5	3.5	3.5	3.5	3.5	6.5	VLSGALE90-15050
2.5"	127	4.0	3.5	3.5	3.5	3.5	3.5	3.5	9.0	VLSGALE90-15063
3"	140	4.0	4.0	4.0	4.0	4.0	4.0	4.0	12.0	VLSGALE90-15080
4"	165	4.5	4.0	4.0	4.0	4.0	4.0	4.0	19.0	VLSGALE90-150100
5"	190	5.5	4.0	4.0	4.0	4.0	4.0	4.0	22.0	VLSGALE90-150125
6"	203	6.5	6.0	6.0	6.0	6.0	6.0	6.0	34.0	VLSGALE90-150150
8"	229	7.0	6.0	6.0	6.0	6.0	6.0	6.0	57.0	VLSGALE90-150200
10"	279	8.0	6.0	6.0	6.0	6.0	6.0	6.0	82.0	VLSGALE90-150250
12"	305	8.0	7.0	7.0	7.0	7.0	7.0	7.0	115.0	VLSGALE90-150300
14"	600	X	7.0	7.0	7.0	7.0	7.0	7.0	150.0	VLSGALE90-150350
16"	610	X	7.0	7.0	7.0	7.0	7.0	7.0	192.0	VLSGALE90-150400
18"	673	X	7.0	7.0	7.0	7.0	7.0	7.0	225.0	VLSGALE90-150450
20"	737	X	7.0	7.0	7.0	7.0	7.0	7.0	280.0	VLSGALE90-150500
24"	864	X	7.0	7.0	7.0	7.0	7.0	7.0	395.0	VLSGALE90-150600

Standard Version: Two fixed langes

Available on request:

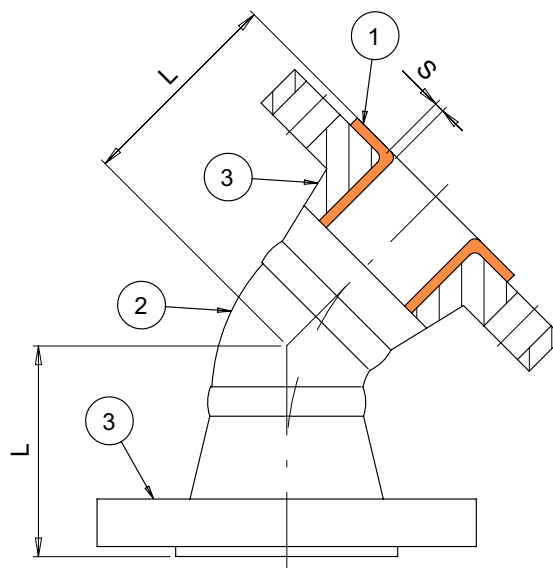
- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
1/2"	45	2.5	X	X	3.0	X	X	X	1.8	VLSGALE45-15013
3/4"	45	3.0	X	X	3.0	X	X	X	2.0	VLSGALE45-15019
1"	45	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	VLSGALE45-15025
1 1/5"	51	3.0	3.0	3.0	3.0	3.0	3.0	3.0	6.0	VLSGALE45-15038
2"	64	4.0	3.5	3.5	3.5	3.5	3.5	3.5	9.0	VLSGALE45-15050
2.5"	76	4.0	3.5	3.5	3.5	3.5	3.5	3.5	13.0	VLSGALE45-15063
3"	76	4.0	4.0	4.0	4.0	4.0	4.0	4.0	15.0	VLSGALE45-15080
4"	102	4.5	4.0	4.0	4.0	4.0	4.0	4.0	20.0	VLSGALE45-150100
5"	114	5.5	4.0	4.0	4.0	4.0	4.0	4.0	26.0	VLSGALE45-150125
6"	127	6.5	6.0	6.0	6.0	6.0	6.0	6.0	33.0	VLSGALE45-150150
8"	140	7.0	6.0	6.0	6.0	6.0	6.0	6.0	54.0	VLSGALE45-150200
10"	165	8.0	6.0	6.0	6.0	6.0	6.0	6.0	75.0	VLSGALE45-150250
12"	185	8.0	7.0	7.0	7.0	7.0	7.0	7.0	110.0	VLSGALE45-150300
14"	190	8.0	7.0	7.0	7.0	7.0	7.0	7.0	117.0	VLSGALE45-150350
16"	203	X	7.0	7.0	7.0	7.0	7.0	7.0	145.0	VLSGALE45-150400
18"	216	X	7.0	7.0	7.0	7.0	7.0	7.0	165.0	VLSGALE45-150450
20"	241	X	7.0	7.0	7.0	7.0	7.0	7.0	210.0	VLSG ALE45-150500

Standard Version: Two fixed langes

Available on request:

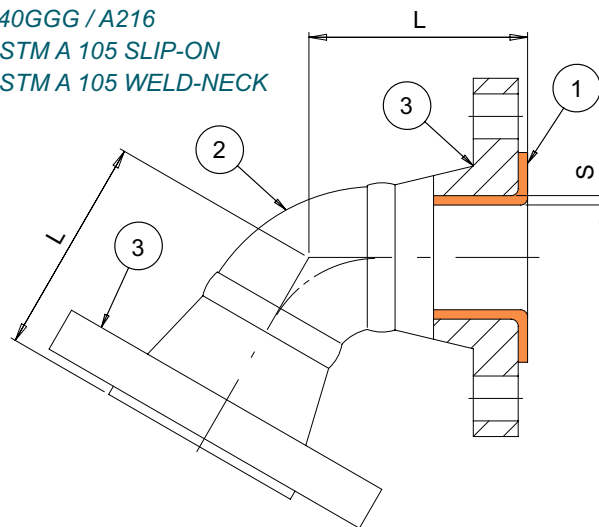
- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 | ASTM A 105 SLIP-ON |
| | | 3.1 | ASTM A 105 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	
1/2"	45	2.5	X	X	3.0	X	X	X	1.6	VLSGALE60-15013
3/4"	45	3.0	X	X	3.0	X	X	X	1.8	VLSGALE60-15019
1"	45	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	VLSGALE60-15025
1 1/5"	57	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	VLSGALE60-15038
2"	64	4.0	3.5	3.5	3.5	3.5	3.5	3.5	8.1	VLSGALE60-15050
2.5"	76	4.0	3.5	3.5	3.5	3.5	3.5	3.5	11.7	VLSGALE60-15063
3"	76	4.0	4.0	4.0	4.0	4.0	4.0	4.0	13.5	VLSGALE60-15080
4"	102	4.5	4.0	4.0	4.0	4.0	4.0	4.0	18.0	VLSGALE60-150100
5"	114	5.5	4.0	4.0	4.0	4.0	4.0	4.0	20.5	VLSGALE60-150125
6"	127	6.5	6.0	6.0	6.0	6.0	6.0	6.0	26.1	VLSGALE60-150150
8"	140	7.0	6.0	6.0	6.0	6.0	6.0	6.0	42.7	VLSGALE60-150200
10"	165	8.0	6.0	6.0	6.0	6.0	6.0	6.0	59.3	VLSGALE60-150250
12"	190	8.0	7.0	7.0	7.0	7.0	7.0	7.0	86.9	VLSGALE60-150300
14"	190	X	7.0	7.0	7.0	7.0	7.0	7.0	92.4	VLSGALE60-150350
16"	203	X	7.0	7.0	7.0	7.0	7.0	7.0	114.6	VLSGALE60-150400
18"	216	X	7.0	7.0	7.0	7.0	7.0	7.0	130.4	VLSGALE60-150450
20"	241	X	7.0	7.0	7.0	7.0	7.0	7.0	165.9	VLSGALE60-150500
24"	279	X	7.0	7.0	7.0	7.0	7.0	7.0	229.1	VLSGALE60-150600

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

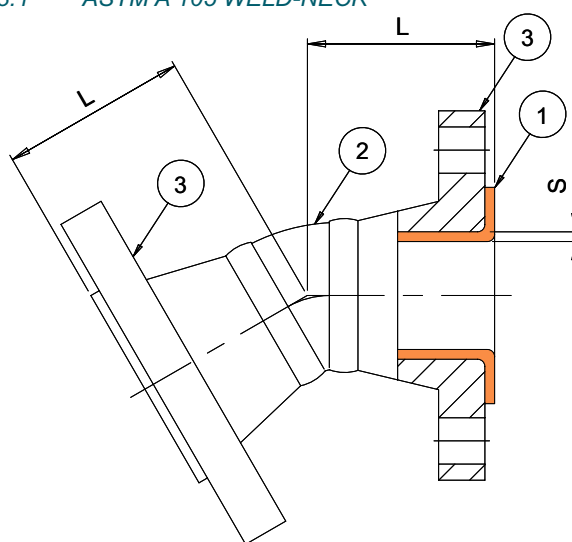
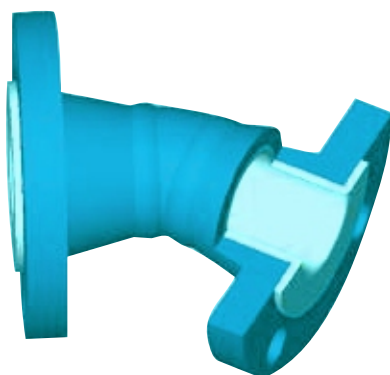


Lined Elbow 30°

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
1/2"	45	2.5	X	X	3.0	X	X	X	1.6	VLSGALE30-15013
3/4"	45	3.0	X	X	3.0	X	X	X	1.8	VLSGALE30-15019
1"	45	3.0	3.0	3.0	3.0	3.0	3.0	3.0	2.7	VLSGALE30-15025
1/5"	57	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.4	VLSGALE30-15038
2"	64	4.0	3.5	3.5	3.5	3.5	3.5	3.5	8.1	VLSGALE30-15050
2.5"	76	4.0	3.5	3.5	3.5	3.5	3.5	3.5	11.7	VLSGALE30-15063
3"	76	4.0	4.0	4.0	4.0	4.0	4.0	4.0	13.5	VLSGALE30-15080
4"	102	4.5	4.0	4.0	4.0	4.0	4.0	4.0	16.0	VLSGALE30-150100
5"	114	5.5	4.0	4.0	4.0	4.0	4.0	4.0	20.8	VLSGALE30-150125
6"	127	6.5	6.0	6.0	6.0	6.0	6.0	6.0	26.4	VLSGALE30-150150
8"	140	7.0	6.0	6.0	6.0	6.0	6.0	6.0	43.2	VLSGALE30-150200
10"	165	8.0	6.0	6.0	6.0	6.0	6.0	6.0	56.3	VLSGALE30-150250
12"	190	8.0	7.0	7.0	7.0	7.0	7.0	7.0	82.5	VLSGALE30-150300
14"	190	X	7.0	7.0	7.0	7.0	7.0	7.0	87.8	VLSGALE30-150350
16"	203	X	7.0	7.0	7.0	7.0	7.0	7.0	108.8	VLSGALE30-150400
18"	216	X	7.0	7.0	7.0	7.0	7.0	7.0	123.8	VLSGALE30-150450
20"	241	X	7.0	7.0	7.0	7.0	7.0	7.0	157.5	VLSGALE30-150500
24"	279	X	7.0	7.0	7.0	7.0	7.0	7.0	217.5	VLSGALE30-150600

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

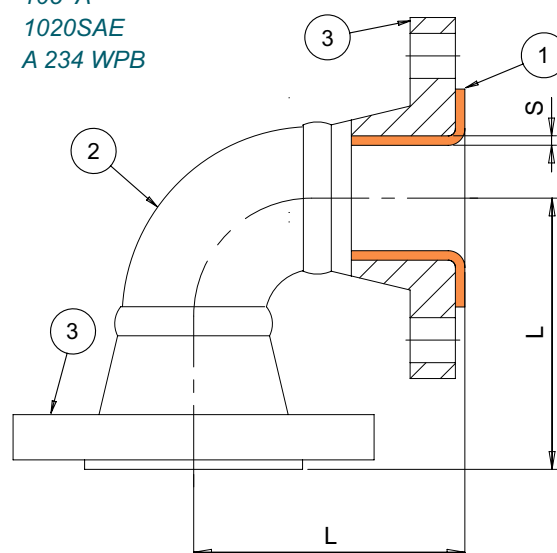
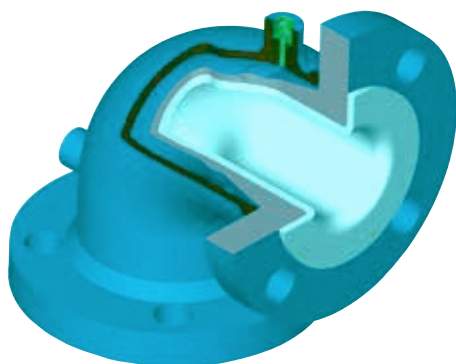


Jacketed Lined Elbows

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 WELD-NECK
- 4 105 A
- 4.1 1020SAE
- 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	
1/2"	75	2.5	X	X	3.0	X	X	X	1.5	VLSGAJLE90-15013
3/4"	89	3.0	X	X	3.0	X	X	X	2.0	VLSGAJLE90-15019
1"	89	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.1	VLSGAJLE90-15025
1 1/5"	102	3.0	3.0	3.0	3.0	3.0	3.0	3.0	4.5	VLSGAJLE90-15038
2"	114	4.0	3.5	3.5	3.5	3.5	3.5	3.5	6.5	VLSGAJLE90-15050
2.5"	127	4.0	3.5	3.5	3.5	3.5	3.5	3.5	9.0	VLSGAJLE90-15063
3"	140	4.0	4.0	4.0	4.0	4.0	4.0	4.0	12.0	VLSGAJLE90-15080
4"	165	4.5	4.0	4.0	4.0	4.0	4.0	4.0	19.0	VLSGAJLE90-150100
5"	190	5.5	4.0	4.0	4.0	4.0	4.0	4.0	22.0	VLSGAJLE90-150125
6"	203	6.5	6.0	6.0	6.0	6.0	6.0	6.0	34.0	VLSGAJLE90-150150
8"	229	7.0	6.0	6.0	6.0	6.0	6.0	6.0	57.0	VLSGAJLE90-150200
10"	279	8.0	6.0	6.0	6.0	6.0	6.0	6.0	82.0	VLSGAJLE90-150250
12"	305	8.0	7.0	7.0	7.0	7.0	7.0	7.0	115.0	VLSGAJLE90-150300
14"	600	X	7.0	7.0	7.0	7.0	7.0	7.0	150.0	VLSGAJLE90-150350
16"	610	X	7.0	7.0	7.0	7.0	7.0	7.0	192.0	VLSGAJLE90-150400
18"	673	X	7.0	7.0	7.0	7.0	7.0	7.0	225.0	VLSGAJLE90-150450
20"	737	X	7.0	7.0	7.0	7.0	7.0	7.0	280.0	VLSGAJLE90-150500
24"	864	X	7.0	7.0	7.0	7.0	7.0	7.0	395.0	VLSGAJLE90-150600

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

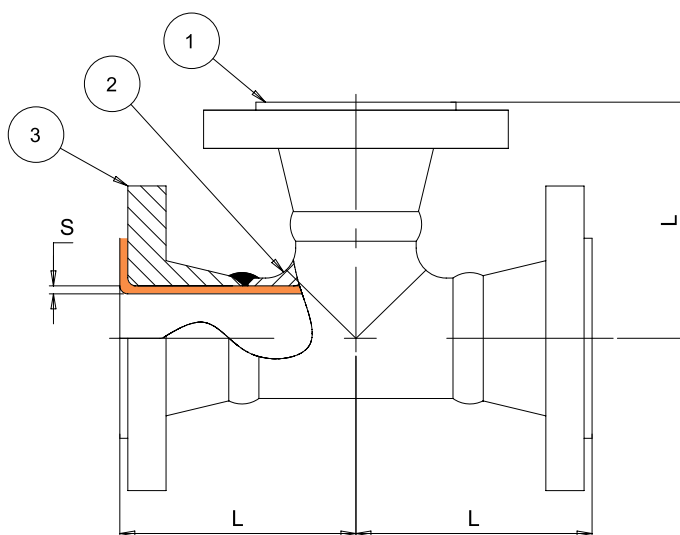


Lined Equal Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
1/2"	65	x	3.0	3.0	3.0	X	X	X	3.0	VLSGALET-15012
3/4"	75	x	3.0	3.0	3.0	X	X	X	3.5	VLSGALET-15019
1"	89	3.0	3.5	3.0	3.0	3.0	3.0	3.0	5.0	VLSGALET-15025
1.5"	102	4.0	4.0	3.0	3.0	3.0	3.0	3.0	8.5	VLSGALET-15040
2"	114	4.3	4.3	3.5	3.5	3.5	3.5	3.5	12.5	VLSGALET-15050
2.5"	127	4.5	4.5	3.5	3.5	3.5	3.5	3.5	13.7	VLSGALET-15063
3"	140	5.7	5.7	4.0	4.0	4.0	4.0	4.0	22.0	VLSGALET-15080
4"	165	6.0	6.0	4.5	4.5	4.5	4.5	4.5	39.0	VLSGALET-150100
5"	190	7.0	6.0	4.5	4.5	4.5	4.5	4.5	57.0	VLSGALET-150125
6"	203	8.0	7.0	6.0	6.0	6.0	6.0	6.0	66.0	VLSGALET-150150
8"	229	12.0	8.0	6.0	6.0	6.0	6.0	6.0	100.0	VLSGALET-150200
10"	279	12.0	8.5	6.0	6.0	6.0	6.0	6.0	158.0	VLSGALET-150250
12"	305	14.0	9.0	7.0	7.0	7.0	7.0	7.0	210.0	VLSGALET-150300
14"	356	6.5 *	8.0	7.0	7.0	7.0	7.0	7.0	385.0	VLSGALET-150350
16"	381	6.5 *	8.0	7.0	7.0	7.0	7.0	7.0	487.0	VLSGALET-150400
18"	419	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	530.0	VLSGALET-150450
20"	457	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	540.0	VLSGALET-150500
24"	500	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	700.0	VLSGALET-150600

Standard Version: Three fixed langes

Available on request:

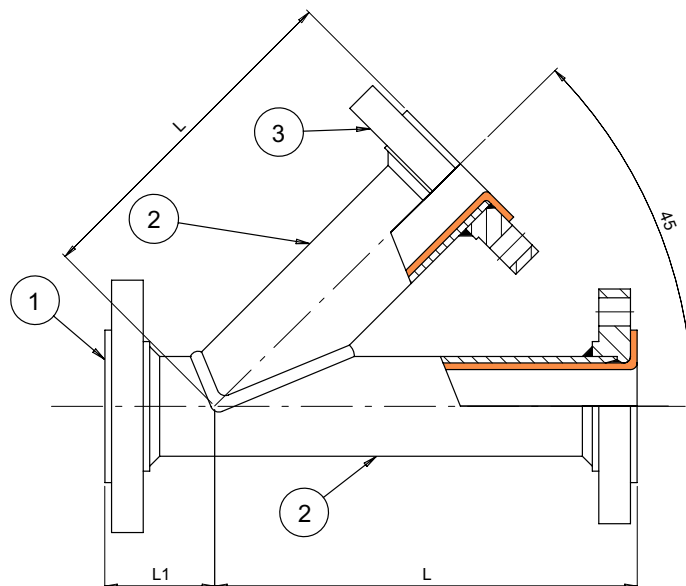
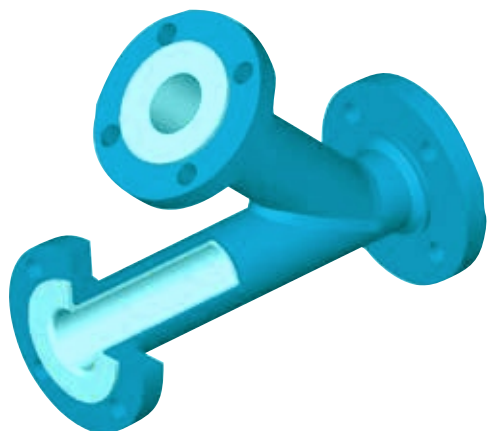
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Letral 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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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%		
Inch	mm	mm	mm	mm	mm	mm	mm	mm	Kg	
1"	146	45	x	3.5	3.0	3.0	3.0	3.0	4.0	VLSGALLT-15025
1 1/2"	178	51	4.0	4.0	3.0	3.0	3.0	3.0	7.0	VLSGALLT-15038
2"	203	64	4.0	4.0	3.5	3.5	3.5	3.5	9.0	VLSGALLT-15050
3"	254	76	5.7	5.7	4.0	4.0	4.0	4.0	19.5	VLSGALLT-15080
4"	305	76	5.7	5.7	4.5	4.5	4.5	4.5	36.0	VLSGALLT-150100
6"	368	89	x	6.5	6.0	6.0	6.0	6.0	53.0	VLSGALLT-150150
8"	445	115	x	7.0	6.0	6.0	6.0	6.0	80.0	VLSGALLT-150200

Standard Version: Three fixed langes

Available on request:

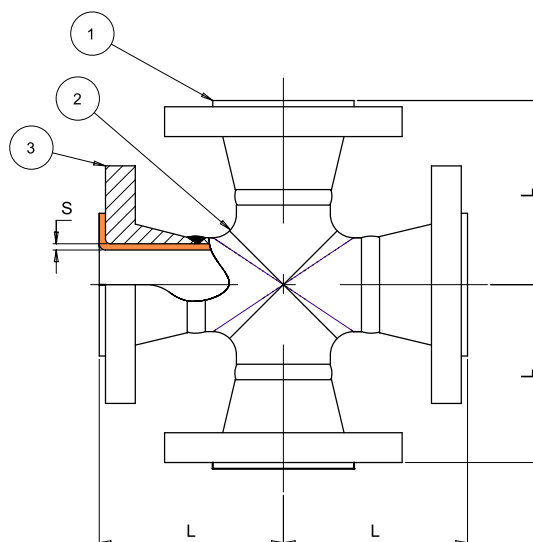
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
1/2"	65	x	3.0	3.0	3.0	X	X	X	3.1	VLSGALEC-15012
3/4"	75	x	3.0	3.0	3.0	X	X	X	4.0	VLSGALEC-15019
1"	89	x	3.5	3.0	3.0	3.0	3.0	3.0	5.5	VLSGALEC-15025
1.5"	102	4.0	4.0	3.0	3.0	3.0	3.0	3.0	8.2	VLSGALEC-15040
2"	114	4.0	4.0	3.5	3.5	3.5	3.5	3.5	13.6	VLSGALEC-15050
2.5"	127	4.5	4.5	3.5	3.5	3.5	3.5	3.5	16.5	VLSGALEC-15063
3"	140	5.7	5.7	4.0	4.0	4.0	4.0	4.0	23.6	VLSGALEC-15080
4"	165	5.7	5.7	4.5	4.5	4.5	4.5	4.5	33.0	VLSGALEC-150100
5"	190	6.0	6.0	4.5	4.5	4.5	4.5	4.5	43.0	VLSGALEC-150125
6"	203	6.5	6.5	6.0	6.0	6.0	6.0	6.0	52.3	VLSGALEC-150150
8"	229	7.0	7.0	6.0	6.0	6.0	6.0	6.0	86.3	VLSGALEC-150200
10"	279	6.5 *	8.0	6.0	6.0	6.0	6.0	6.0	124.0	VLSGALEC-150250
12"	305	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	169.0	VLSGALEC-150300
14"	356	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	300.0	VLSGALEC-150350
16"	381	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	372.0	VLSGALEC-150400
18"	419	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	427.0	VLSGALEC-150450
20"	457	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	547.0	VLSGALEC-150500
24"	500	6.5 *	7.0	7.0	7.0	7.0	7.0	7.0	713.0	VLSGALEC-150600

Standard Version: Four fixed langes

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

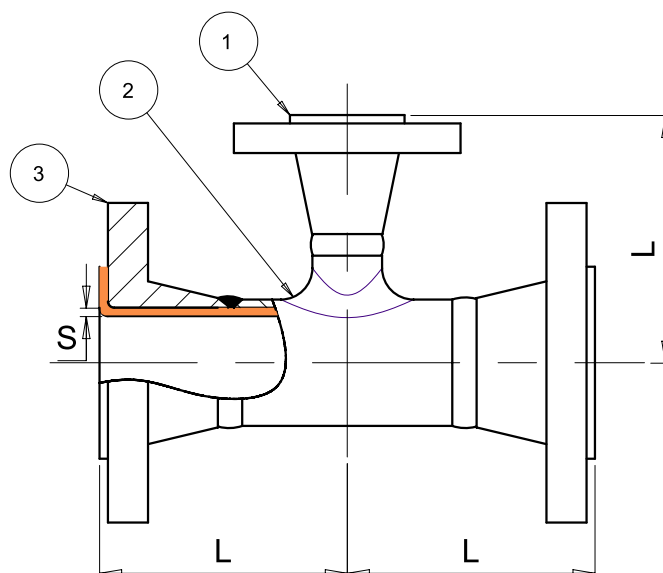


Lined Reducing Tees

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 ASTMA A 105 SLIP-ON
- 3.1 ASTMA A 105 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	
3/4"	1/2"	75	x	3.0	x	x	x	x	x	3.0	VLSGALRT-15019-15
1"	1/2"	89	x	3.0	x	x	x	x	x	3.7	VLSGALRT-15025-15
	3/4"				x	x	x	x	x	3.9	VLSGALRT-15025-19
1.5"	1/2"	102	3.0		x	x	x	x	x	5.1	VLSGALRT-15038-12
	3/4"				x	x	x	x	x	5.3	VLSGALRT-15038-19
	1"				3.0					5.5	VLSGALRT-15038-25
2"	1/2"	114	4.0 / 3		x	x	x	x	x	7.5	VLSGALRT-15050-12
	3/4"				x	x	x	x	x	7.7	VLSGALRT-15050-19
	1"				3.0					7.9	VLSGALRT-15050-25
	1.5"									9.4	VLSGALRT-15050-40

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

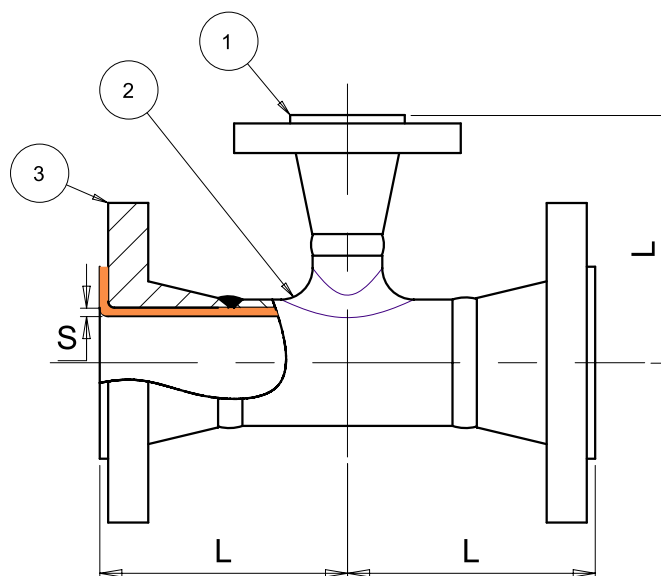


Lined Reducing Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
3"	1"	140	4.0 / 3							13.8	VLSGALRT-15080-25
	1.5"									14.0	VLSGALRT-15080-40
	2"									15.0	VLSGALRT-15080-50
4"	1"	165	4.5 / 3							19.0	VLSGALRT-150100-25
	1.5"									19.8	VLSGALRT-150100-40
	2"									21.5	VLSGALRT-150100-50
	3"									23.5	VLSGALRT-150100-80
6"	1"	203	6.0 / 3		4.5 / 3					28.2	VLSGALRT-150150-25
	1.5"									30.7	VLSGALRT-150150-40
	2"		6.0 / 4							32.0	VLSGALRT-150150-50
	3"									35.2	VLSGALRT-150150-80
	4"									37.0	VLSGALRT-150150-100
8"	1"	229	6.0 / 3		6.0 / 3					42.5	VLSGALRT-150200-25
	1.5"									45.6	VLSGALRT-150200-40
	2"									47.0	VLSGALRT-150200-50
	3"		6.0 / 4.5 6.0 / 4		6					54.0	VLSGALRT-150200-80
	4"									57.0	VLSGALRT-150200-100
	5"									60.0	VLSGALRT-150200-125
	6"									63.0	VLSGALRT-150200-150

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

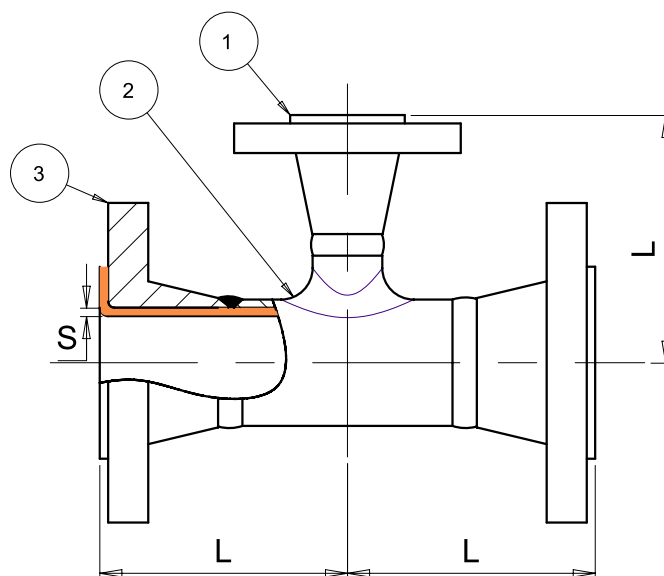


Lined Reducing Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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"	1"	280	6.5 / 3	6.0 / 3	6.0 / 3					64.6	VLSGALRT-150250-25
	1.5"									66.3	VLSGALRT-150250-40
	2"									68.3	VLSGALRT-150250-50
	3"		6.5 / 4	6.0 / 4	6.0					75.3	VLSGALRT-150250-80
	4"									79.3	VLSGALRT-150250-100
	6"		6.5 / 5	6.0 / 4.5	6.0					83.0	VLSGALRT-150250-150
	8"									94.0	VLSGALRT-150250-200
12"	1"	305	6.5 / 3 *	6.0 / 3					127.0	VLSGALRT-150300-25	
	1.5"								130.0	VLSGALRT-150300-40	
	2"								133.0	VLSGALRT-150300-50	
	3"		6.5 / 4 *	6.0					135.0	VLSGALRT-150300-80	
	4"		6.5 / 4.5 *						140.0	VLSGALRT-150300-100	
	6"		6.5 / 6 *	6.0					143.0	VLSGALRT-150300-150	
	8"								153.0	VLSGALRT-150300-200	
	10"								7.0	160.0	VLSGALRT-150300-250

- Standard Version:** Three fixed langes
- Available on request:**
- Loosed langes
 - ANSI B16.5 Class 300 langes
 - Stainless steel body and langes 304/316
 - Different Lengths (L)

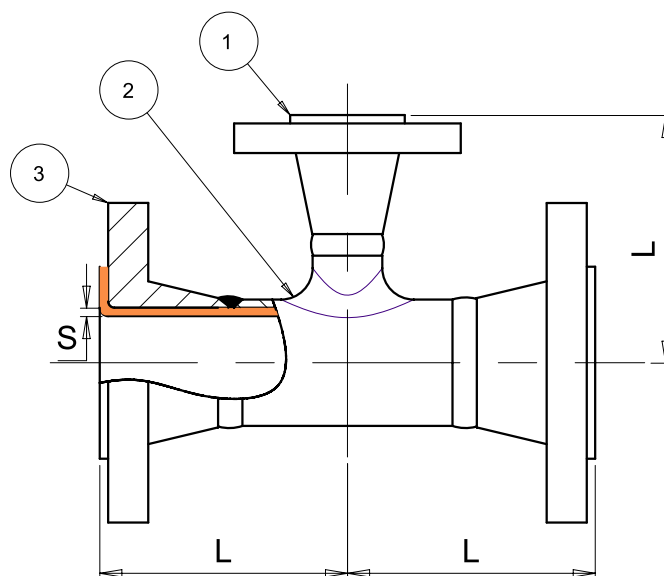


Lined Reducing Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
14"	1"	356	6.5 / 3 *	6.0 / 3						169.0	VLSGALRT-150350-25
	1.5"									173.0	VLSGALRT-150350-40
	2"									175.0	VLSGALRT-150350-50
	3"		6.5 / 4 *							186.0	VLSGALRT-150350-80
	4"		6.5 / 4.5 *	6.0						191.0	VLSGALRT-150350-100
	6"									204.0	VLSGALRT-150350-150
	8"		6.5 / 6 *	7.0						293.0	VLSGALRT-150350-200
	10"									299.0	VLSGALRT-150350-250
	12"			7.0						307.0	VLSGALRT-150350-300
	14"									307.0	VLSGALRT-150350-350
16"	1"	381	6.5 / 3 *	6.0 / 3						227.0	VLSGALRT-150400-25
	1.5"									231.0	VLSGALRT-150400-40
	2"									233.0	VLSGALRT-150400-50
	3"		6.5 / 4 *							244.0	VLSGALRT-150400-80
	4"		6.5 / 4.5 *	6.0						250.0	VLSGALRT-150400-100
	6"									263.0	VLSGALRT-150400-150
	8"		6.5 / 6 *	7.0						271.0	VLSGALRT-150400-200
	10"									283.0	VLSGALRT-150400-250
	12"			7.0						297.0	VLSGALRT-150400-300
	14"									303.0	VLSGALRT-150400-350

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

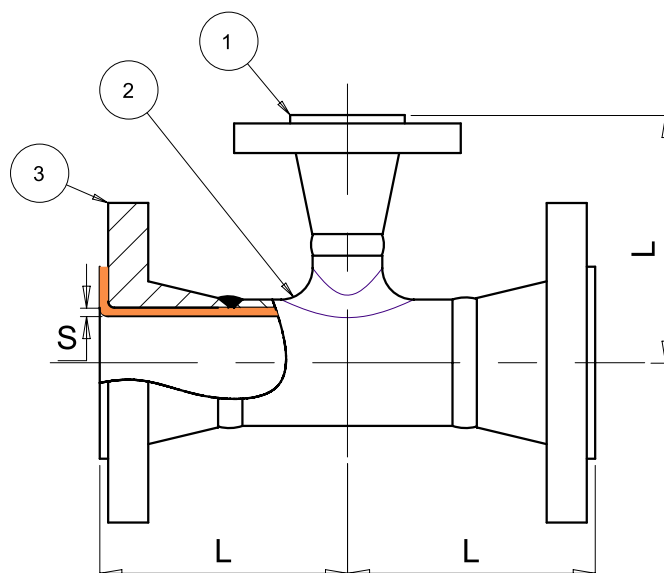


Lined Reducing Tees

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 ASTMA A 105 SLIP-ON
- 3.1 ASTMA A 105 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	
18"	1"	419	6.5 / 3 *	6.0 / 3						303.0	VLSGALRT-150450-25
	1.5"									307.0	VLSGALRT-150450-40
	2"									309.0	VLSGALRT-150450-50
	3"									319.0	VLSGALRT-150450-80
	4"									323.0	VLSGALRT-150450-100
	6"		6.5 / 4.5 *	6.0						338.0	VLSGALRT-150450-150
	8"									349.0	VLSGALRT-150450-200
	10"		6.5 / 6 *	7.0						358.0	VLSGALRT-150450-250
	12"									379.0	VLSGALRT-150450-300
	14"									405.0	VLSGALRT-150450-350
	16"									430.0	VLSGALRT-150450-400

Standard Version: Three fixed langes

Available on request:

- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

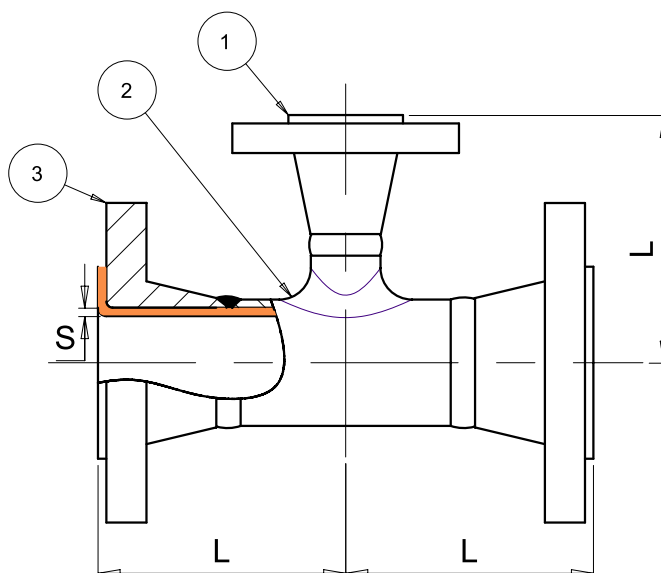


Lined Reducing Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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"	457	6.5 / 3 *	6.0 / 3						333.0	VLSGALRT-150500-25					
	1.5"									335.0	VLSGALRT-150500-40					
	2"									337.0	VLSGALRT-150500-50					
	3"									340.0	VLSGALRT-150500-80					
	4"		6.5 / 4 *	6.0						350.0	VLSGALRT-150500-100					
	6"		6.5 / 4.5 *							356.0	VLSGALRT-150500-150					
	8"		6.5 / 6 *							366.0	VLSGALRT-150500-200					
	10"									377.0	VLSGALRT-150500-250					
	12"								392.0	VLSGALRT-150500-300						
	14"								407.0	VLSGALRT-150500-350						
	16"		7.0						425.0	VLSGALRT-150500-400						
	18"								437.0	VLSGALRT-150500-450						

- Standard Version:** Three fixed langes
- Available on request:**
- Loosed langes
 - ANSI B16.5 Class 300 langes
 - Stainless steel body and langes 304/316
 - Different Lengths (L)

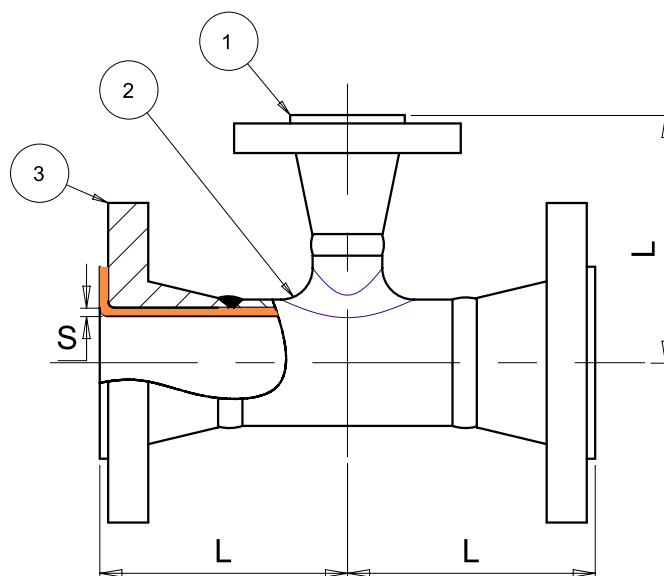


Lined Reducing Tees

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
24"	1"	500	6.5 / 3 *	6.0 / 3						363.0	VLSGALRT-150600-25
	1.5"									367.0	VLSGALRT-150600-40
	2"									370.0	VLSGALRT-150600-50
	3"									377.0	VLSGALRT-150600-80
	4"									383.0	VLSGALRT-150600-100
	6"		6.5 / 4.5 *	6.0						396.0	VLSGALRT-150600-150
	8"									427.0	VLSGALRT-150600-200
	10"		6.5 / 6 *	7.0						473.0	VLSGALRT-150600-250
	12"									489.0	VLSGALRT-150600-300
	14"									507.0	VLSGALRT-150600-350
	16"									523.0	VLSGALRT-150600-400
	18"									535.0	VLSGALRT-150600-450
	20"									557.0	VLSGALRT-150600-500

Standard Version: Three fixed langes

Available on request:

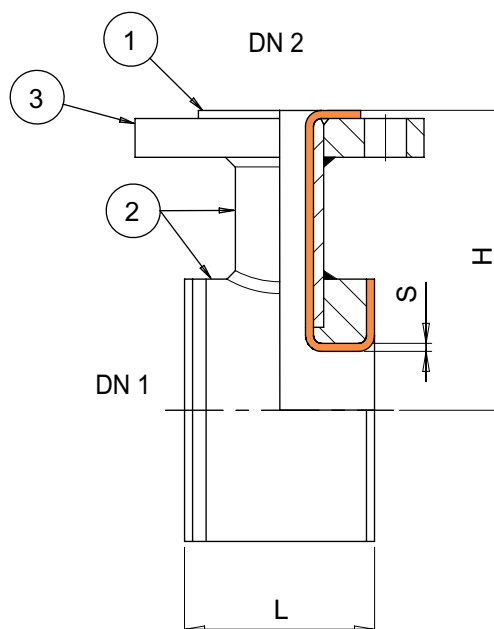
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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						
1"	1/2"	50	90	x	3.5					2.0	VLSGALIT-15025-12					
	3/4"									2.0	VLSGALIT-15025-19					
	1"									2.2	VLSGALIT-15025-25					
1.5"	1/2"	50	110	X	3.5					2.4	VLSGALIT-15040-12					
	3/4"									2.6	VLSGALIT-15040-19					
	1"									2.8	VLSGALIT-15040-25					
	1.5"	75								4.4	VLSGALIT-15040-40					
2"	1/2"	50	115	X	4.0 / 3.5					3.3	VLSGALIT-15050-12					
	3/4"									3.4	VLSGALIT-15050-19					
	1"			3.0						3.7	VLSGALIT-15050-25					
	1.5"	75		3.5						6.3	VLSGALIT-15050-40					
	2"	90								8.0	VLSGALIT-15050-50					
3"	1/2"	50	135	X	4.0 / 3.5					4.3	VLSGALIT-15080-12					
	3/4"									4.5	VLSGALIT-15080-19					
	1"			3.0						4.7	VLSGALIT-15080-25					
	1.5"	75		4.0						8.5	VLSGALIT-15080-40					
	2»	90								12.5	VLSGALIT-15080-50					

Standard Version: Fixed langes

Available on request:

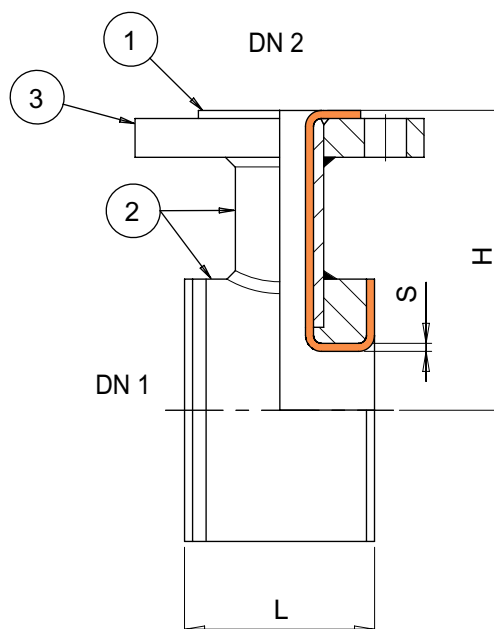
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
4"	1/2"	50	150	X	5.0 / 3.5					5.5	VLSGALIT-150100-12
	3/4"			3.0						5.7	VLSGALIT-150100-19
	1"			4.0						6.0	VLSGALIT-150100-25
	1.5"	75		4.0	5.0 / 4.0					9.0	VLSGALIT-150100-40
	2"	90								16.0	VLSGALIT-150100-50
	3"	150								22.0	VLSGALIT-150100-80
6"	1/2"	50	180	X	6.0 / 3.5					7.7	VLSGALIT-150150-12
	3/4"			3.0						7.9	VLSGALIT-150150-19
	1"			4.0						8.2	VLSGALIT-150150-25
	1.5"	75		4.0	6.0 / 4.0					14.7	VLSGALIT-150150-40
	2"	90								21.8	VLSGALIT-150150-50
	3"	150								30.1	VLSGALIT-150150-80
8"	1/2"	50	210	X	6.0 / 3.5					9.9	VLSGALIT-150200-12
	3/4"			3.0						10.3	VLSGALIT-150200-19
	1"			4.0						10.5	VLSGALIT-150200-25
	1.5"	75		4.0	6.0 / 4.0					17.8	VLSGALIT-150200-40
	2"	90								23.3	VLSGALIT-150200-50
	3"	150								34.0	VLSGALIT-150200-80

Standard Version: Fixed langes

Available on request:

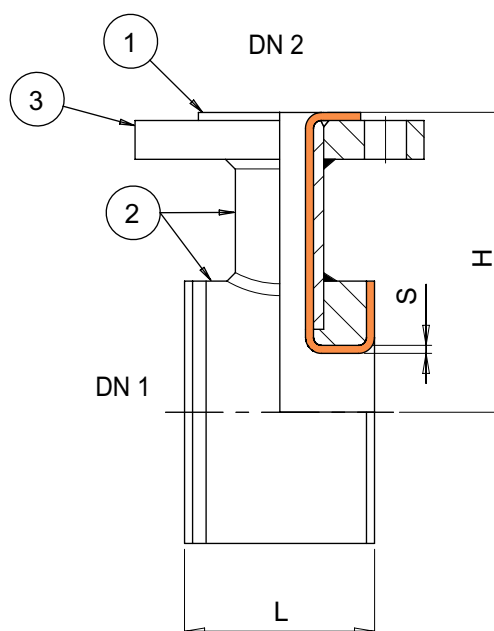
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 2.2 40GGG / A216
- 3.1 ASTM A 105 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						
10"	1/2"	50	240	×	8.0 / 3.5					13.1	VLSGALIT-150250-12					
	3/4"			3.0						13.3	VLSGALIT-150250-19					
	1"									13.7	VLSGALIT-150250-25					
	1.5"	75		4.0	8.0 / 4.0					23.3	VLSGALIT-150250-40					
	2"	90								26.0	VLSGALIT-150250-50					
	3"	150								36.7	VLSGALIT-150250-80					
12"	1/2"	90	340	×	8.0 / 3.5					41.5	VLSGALIT-150300-12					
	3/4"			3.0						42.2	VLSGALIT-150300-19					
	1"									43.0	VLSGALIT-150300-25					
	1.5"	110		4.0	8.0 / 4.0					55.5	VLSGALIT-150300-40					
	2"	120								62.0	VLSGALIT-150300-50					
	3"	150								70.0	VLSGALIT-150300-80					
14"	1/2"	90	375	×	8.0 / 3.5					50.7	VLSGALIT-150350-12					
	3/4"			6.5 / 3 *						52.0	VLSGALIT-150350-19					
	1"									53.1	VLSGALIT-150350-25					
	1.5"	110		6.5 / 4 *	8.0 / 4.0					66.5	VLSGALIT-150350-40					
	2"	120								73.7	VLSGALIT-150350-50					
	3"	150								82.0	VLSGALIT-150350-80					

Standard Version: Fixed langes

Available on request:

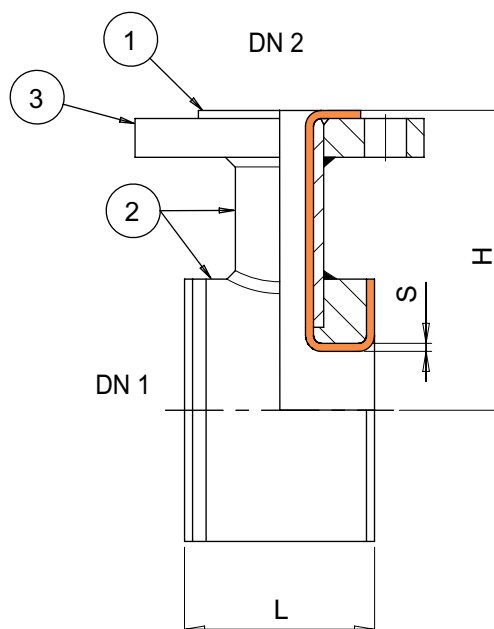
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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						
16"	1/2"	90	390	X	8.0 / 3.5					57.0	VLSGALIT-150400-12					
	3/4"			6.5 / 3 *						58.0	VLSGALIT-150400-19					
	1"									59.0	VLSGALIT-150400-25					
	1.5"	110		6.5 / 4 *	8.0 / 4.0					74.0	VLSGALIT-150400-40					
	2"	120								83.0	VLSGALIT-150400-50					
	3"	150								93.0	VLSGALIT-150400-80					
18"	1/2"	90	450	X	8.0 / 3.5					66.0	VLSGALIT-150450-12					
	3/4"			6.5 / 3 *						67.0	VLSGALIT-150450-19					
	1"									68.5	VLSGALIT-150450-25					
	1.5"	110		6.5 / 4 *	8.0 / 4.0					90.5	VLSGALIT-150450-40					
	2"	120								93.7	VLSGALIT-150450-50					
	3"	150								104.0	VLSGALIT-150450-80					
20"	1/2"	90	500	X	8.0 / 3.5					69.0	VLSGALIT-150500-12					
	3/4"			6.5 / 3 *						70.8	VLSGALIT-150500-19					
	1"									72.0	VLSGALIT-150500-25					
	1.5"	110		6.5 / 4 *	8.0 / 4.0					89.7	VLSGALIT-150500-40					
	2"	120								100.0	VLSGALIT-150500-50					
	3"	150								113.0	VLSGALIT-150500-80					

Standard Version: Fixed langes

Available on request:

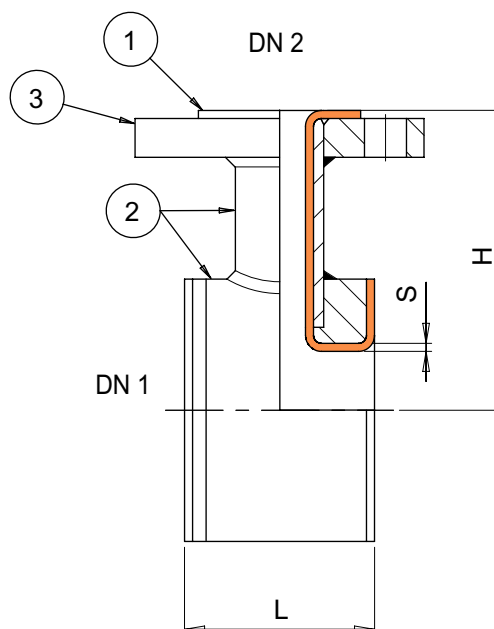
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
24"	1/2"	90	510	X	8.0 / 3.5					78.3	VLSGALIT-150600-12
	3/4"									78.4	VLSGALIT-150600-19
	1"			6.5 / 3 *						79.1	VLSGALIT-150600-25
	1.5"	110		6.5 / 4 *	8.0 / 4.0					94.5	VLSGALIT-150600-40
	2"	120								107.5	VLSGALIT-150600-50
	3"	150								120.0	VLSGALIT-150600-80

Standard Version: Fixed langes
Available on request:

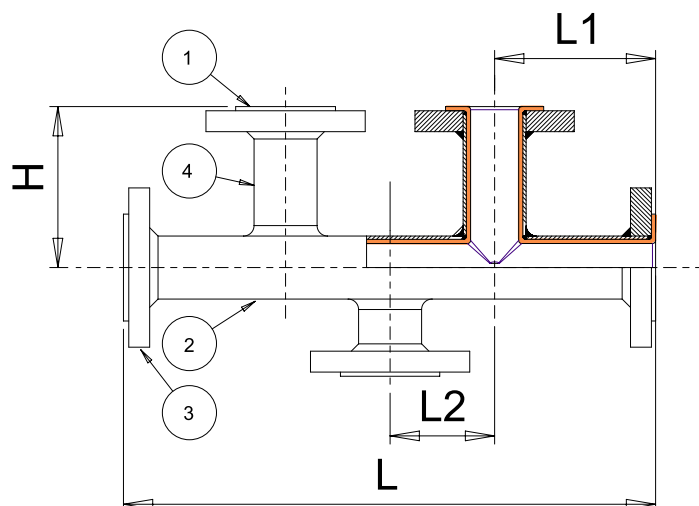
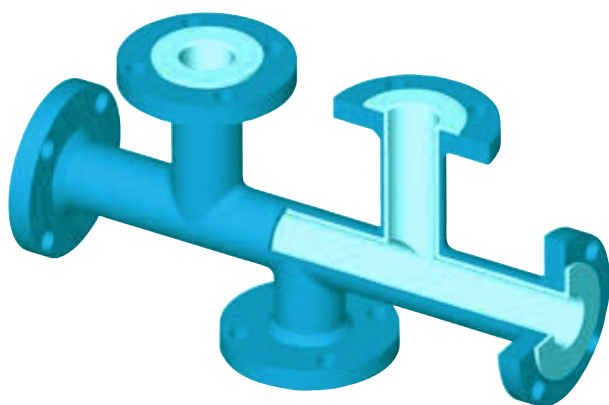
- Loosed langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)



Lined Manifold

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



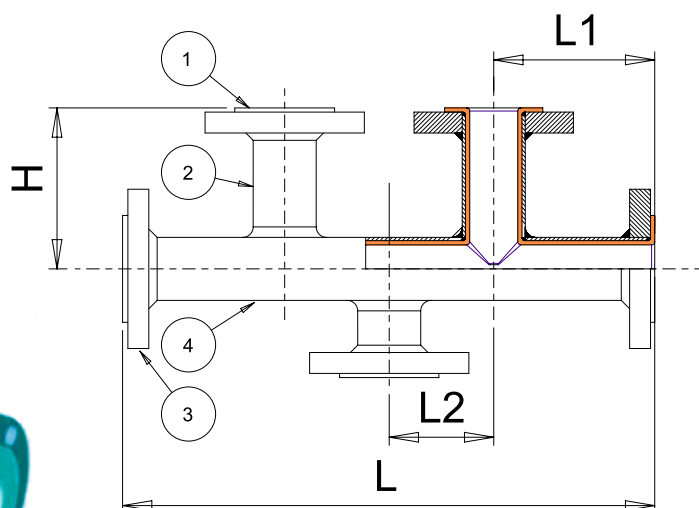
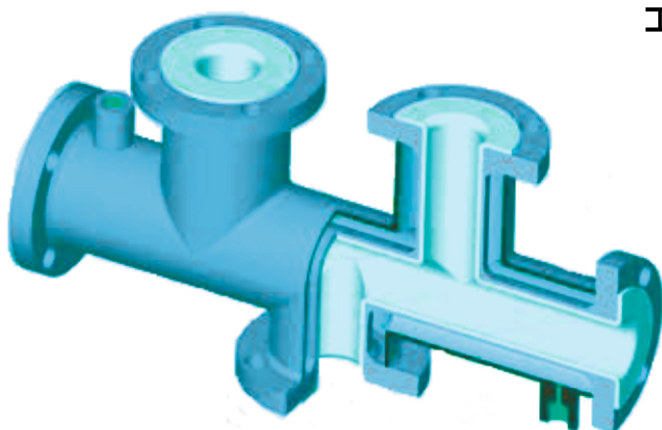
LINING MATERIALS						
Nozzle DN	D	d1	H	T	S	Part. No
			max			
	mm	mm	mm	mm	mm	
1/2"	35	14	2000	15	4	VLSGALM-15012
3/4"	43	17	2000	15	5	VLSGALM-15019
1"	108	23	2000	20	8	VLSGALM-15025
1.5"	127	35	2000	25	10	VLSGALM-15038
2"	152	45	2000	25	12	VLSGALM-15050
2.5"	178	55	2000	25	12	VLSGALM-15062
3"	190	70	2000	25	15	VLSGALM-15080
4"	229	92	2000	30	15	VLSGALM-150100
5"	254	118	2000	30	15	VLSGALM-150125
6"	280	144	2000	30	15	VLSGALM-150150
8"	343	190	2000	30	15	VLSGALM-150200
10"	406	240	1000	30	15	VLSGALM-150250
12"	428	290	1000	30	15	VLSGALM-150300
14"	534	325	1000	30	15	VLSGALM-150350
16"	596	376	1000	30	15	VLSGALM-150400
18"	635	425	1000	30	15	VLSGALM-150450
20"	600	475	1000	30	15	VLSGALM-150500



Jacketed Tees & Manifold

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
- 4.0 ST37 / A106 / API 5L



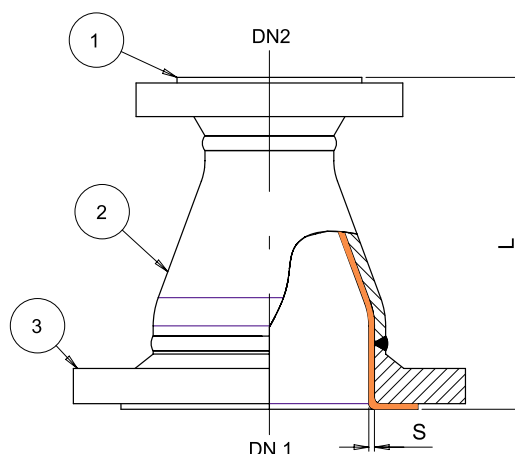


Lined Concentric Reducer

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
3/4"	1/2"	114	2.0	2.0	x	x	x	x	x	2.1	H
1"	1/2"	114	3.0	x	x	x	x	x	x	2.3	VLSGALCR-15025-12
	3/4"			x	x	x	x	x	x	2.3	VLSGALCR-15025-19
1.5"	3/4"	114	3.0	x	x	x	x	x	x	3.1	VLSGALCR-15038-19
	1"			3.0						3.3	VLSGALCR-15038-25
2"	1"	127	4.0 / 3	3.0						4.1	VLSGALCR-15050-25
	1.5"									4.8	VLSGALCR-15050-38
2.5"	1"	140	4.0 / 3	3.0						5.8	VLSGALCR-15062-25
	2"									6.9	VLSGALCR-15062-50
3"	1"	152	4.0 / 3	4.0 / 3						6.7	VLSGALCR-15080-25
	1.5"									6.2	VLSGALCR-15080-38
	2"									7.0	VLSGALCR-15080-50
4"	1"	178	4.5 / 3.5	4.5 / 3.5						10.0	VLSGALCR-150100-25
	1.5"									11.0	VLSGALCR-150100-38
	2"									12.0	VLSGALCR-150100-50
	3"									14.0	VLSGALCR-150100-80

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

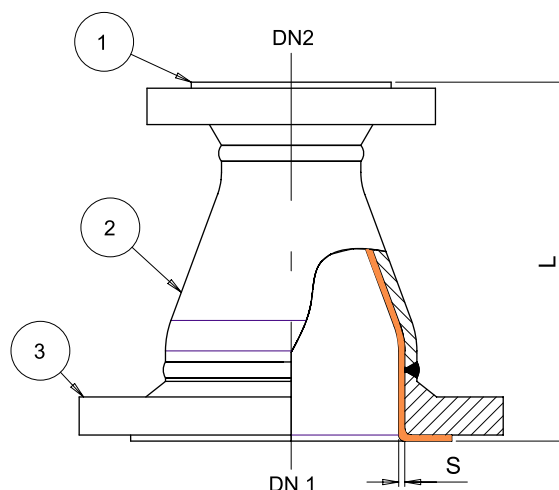


Lined Concentric Reducer

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
5"	1"	203	4.5 / 3.5							10.5	VLSGALCR-150125-50
	3"									12.7	VLSGALCR-150125-80
	4"									15.5	VLSGALCR-150125-100
6"	1"	229	4.5 / 3.0							19.5	VLSGALCR-150150-25
	2"									20.0	VLSGALCR-150150-50
	3"		5.0 / 4.0							20.5	VLSGALCR-150150-80
	4"									23.0	VLSGALCR-150150-100
8"	4"	279	6.5	5.0					22.0	VLSGALCR-150200-100	
	6"								25.3	VLSGALCR-150200-150	
10"	4"	305	6.5	5.0					35.0	VLSGALCR-150250-100	
	6"								38.0	VLSGALCR-150250-150	
	8"								44.0	VLSGALCR-150250-200	
12"	6"	356	6.5							45.5	VLSGALCR-150300-150
	8"									47.5	VLSGALCR-150300-200
	10"									52.5	VLSGALCR-150300-250
14"	8"	406	6.5							69.0	VLSGALCR-150350-200
	10"									73.5	VLSGALCR-150350-250
	12"									80.0	VLSGALCR-150350-300

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

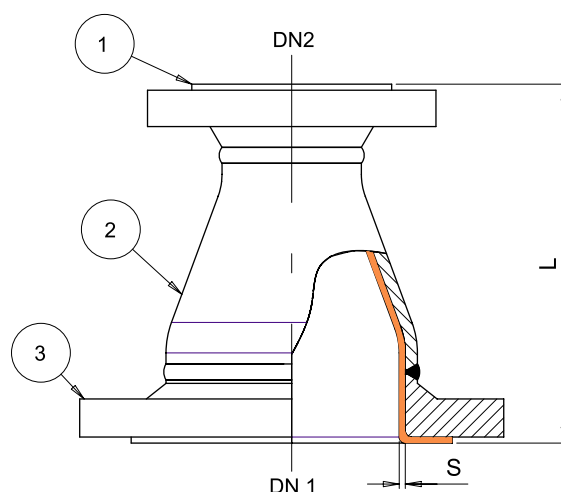


Lined Concentric Reducer

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
16"	10"	457	6.5							98.0	VLSGALCR-150400-250
	12"									105.0	VLSGALCR-150400-300
	14"									115.0	VLSGALCR-150400-350
18"	12"	483	6.5							135.0	VLSGALCR-150450-300
	14"									149.0	VLSGALCR-150450-350
	16"									158.0	VLSGALCR-150450-400
20"	12"	508	6.5							185.0	VLSGALCR-150500-300
	14"									198.0	VLSGALCR-150500-350
	16"									208.0	VLSGALCR-150500-400
	18"									217.0	VLSGALCR-150500-450
24"	16"	610	6.5							272.0	VLSGALCR-150600-400
	18"									282.0	VLSGALCR-150600-450
	20"									290.0	VLSGALCR-150600-500

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

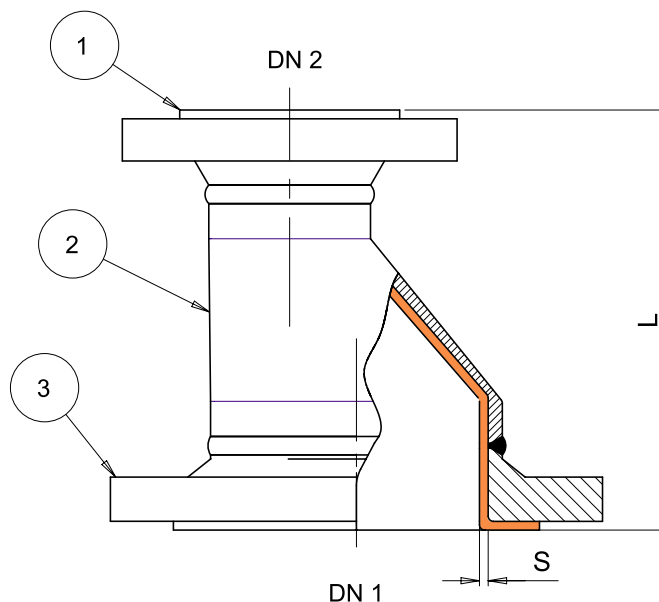


Lined Eccentric Reducer

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 ASTMA A 105 SLIP-ON
- 3.1 ASTMA A 105 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	
1.5"	1"	114	3.0	3.0						3.0	VLSGALER-15038-25
2"	1"	127	4.0 / 3	3.0						4.0	VLSGALER-15050-25
	1.5"									4.3	VLSGALER-15050-38
3"	1"	152	4.0 / 3						6.7	VLSGALER-15080-25	
	1.5"								6.2	VLSGALER-15080-38	
	2"								7.0	VLSGALER-15080-50	
4"	1.5"	178	4.5 / 3.5						11.0	VLSGALER-150100-38	
	2»								11.8	VLSGALER-150100-50	
	3"								14.8	VLSGALER-150100-80	
6"	2"	229	5.0 / 4.0						17.0	VLSGALER-150150-50	
	3"								19.0	VLSGALER-150150-80	
	4"								21.0	VLSGALER-150150-100	
8"	4"	279	6.0	6.0						22.0	VLSGALER-150200-100
	6"									26.0	VLSGALER-150200-150

Standard Version: Two fixed langes

Available on request:

- One or Two loose langes
- ANSI B16.5 Class 300 langes
- Stainless steel body and langes 304/316
- Different Lengths (L)

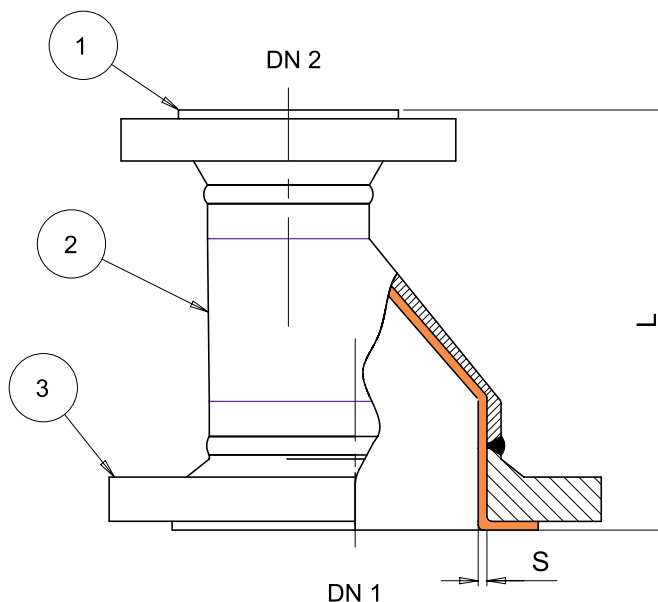


Lined Eccentric Reducer

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 ASTM A 105 SLIP-ON
- 3.1 ASTM A 105 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	
10"	4"	305	6.0	6.0						33.0	VLSGALER-150250-100
	6"									37.5	VLSGALER-150250-150
	8"									44.7	VLSGALER-150250-200
12"	6"	356	6.0							45.0	VLSGALER-150300-150
	8"									47.5	VLSGALER-150300-200
	10"									53.0	VLSGALER-150300-250
14"	8"	406	6.0							67.5	VLSGALER-150350-200
	10"									73.0	VLSGALER-150350-250
	12"									80.0	VLSGALER-150350-300
16"	10"	457	6.0							98.0	VLSGALER-150400-250
	12"									105.0	VLSGALER-150400-300
	14"									115.0	VLSGALER-150400-350
18"	12"	483	6.0							135.0	VLSGALER-150450-300
	14"									148.0	VLSGALER-150450-350
	16"									157.0	VLSGALER-150450-400

Standard Version: Two fixed langes

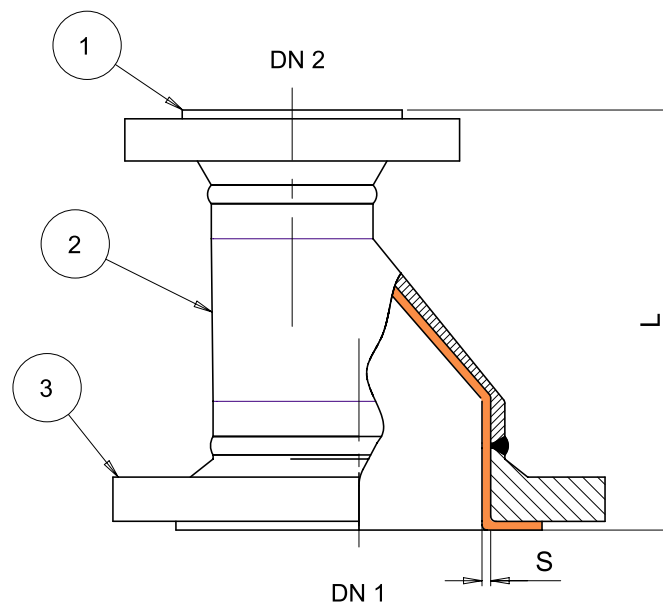
- Available on request:**
- One or Two loose langes
 - ANSI B16.5 Class 300 langes
 - Stainless steel body and langes 304/316
 - Different Lengths (L)



Lined Eccentric Reducer

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 ASTM A 105 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	
20"	12"	508	6.0							188.0	VLSGALER-150500-300
	14"									200.0	VLSGALER-150500-350
	16"									210.0	VLSGALER-150500-400
	18"									218.0	VLSGALER-150500-450
24"	20"	610	6.0							290.0	VLSGALER-150600-500

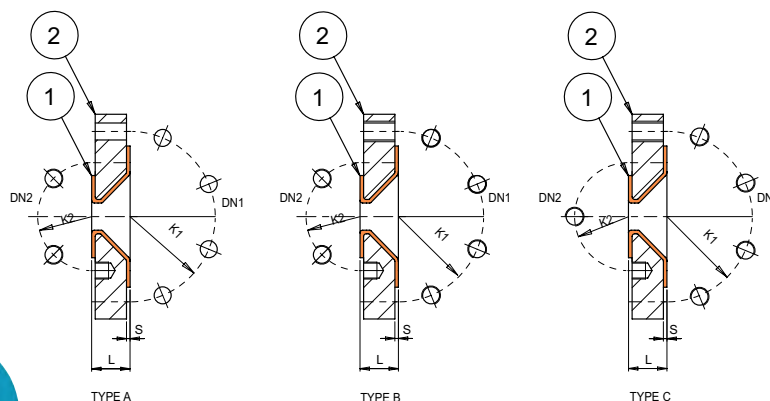
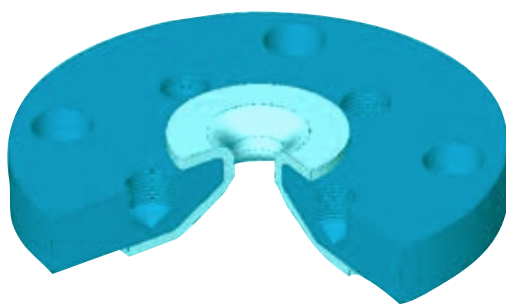
- Standard Version:** Two fixed langes
- Available on request:**
- One or Two loose langes
 - ANSI B16.5 Class 300 langes
 - Stainless steel body and langes 304/316
 - Different Lengths (L)



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	
3/4"	1/2"	35	3.0	3.0					C	1.7	VLSGALRF-15019-12
1"	1/2"	35	3.0	3.0					C	2.1	VLSGALRF-15025-12
	3/4"								C	2.4	VLSGALRF-15025-19
1 1/4"	3/4"	35	3.0	3.0					C	3.9	VLSGALRF-15032-19
	1"								C	3.5	VLSGALRF-15032-25
1 1/2"	1/2"	35	3.0	3.0					C	4.1	VLSGALRF-15038-12
	3/4"		3.5	3.0					C	4.0	VLSGALRF-15038-19
	1"								C	4.1	VLSGALRF-15038-25
2"	3/4"	35	3.0	3.0					B	5.0	VLSGALRF-15050-19
	1"		3.5						B	4.9	VLSGALRF-15050-25
	1 1/2"								C	5.1	VLSGALRF-15050-38
2 1/2 "	1"	35	3.5	3.0					B	5.9	VLSGALRF-15062-25
	1 1/2"								C	5.6	VLSGALRF-15062-38
	2"								C	5.6	VLSGALRF-15062-50
3"	1"	35	3.5	3.0					A	6.8	VLSGALRF-15080-25
	1 1/2"								B	6.6	VLSGALRF-15080-38
	2"								B	6.4	VLSGALRF-15080-50

Available on request: • ANSI B16.5 Class 300 langes
• Stainless steel body and langes 304/316



Lined Reducing Flanges

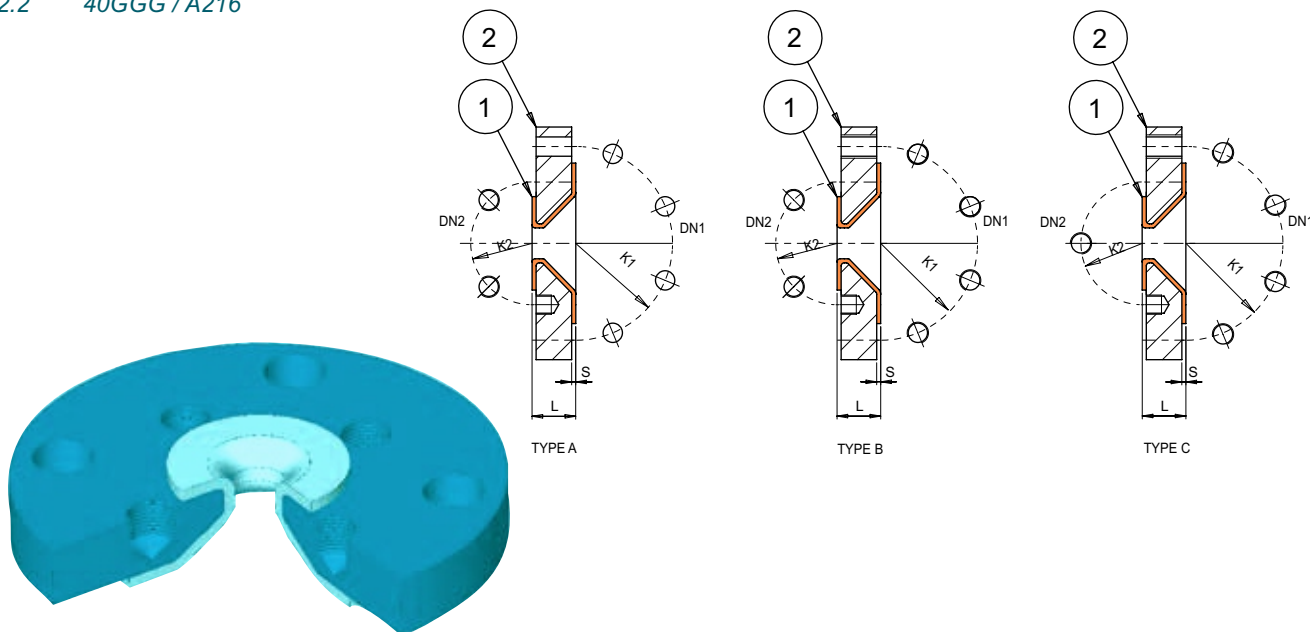
Materials:

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	
4"	1"	45	3.5	3.5					A	12.0	VLSGALRF-150100-25
	1 1/2"		4.0						A	12.0	VLSGALRF-150100-38
	2"								B	12.0	VLSGALRF-150100-50
	3"								C	10.0	VLSGALRF-150100-80
5"	1"	45	3.5	3.0					A	16.0	VLSGALRF-150125-25
	1 1/2"		4						A	15.0	VLSGALRF-150125-38
	2"		5	4.0					A	14.0	VLSGALRF-150125-50
	3"								B	13.0	VLSGALRF-150125-80
	4"								C	13.0	VLSGALRF-150125-100
6"	1"	45	3.5	3.0					A	22.0	VLSGALRF-150150-25
	1 1/2"		4						A	20.0	VLSGALRF-150150-38
	2"		5	4.0					A	19.0	VLSGALRF-150150-50
	3"								A	18.0	VLSGALRF-150150-80
	4"								B	17.0	VLSGALRF-150150-100
8"	1"	45	3.5	3.0					A	29.0	VLSGALRF-150200-25
	1 1/2"		4						A	28.5	VLSGALRF-150200-38
	2"		5	4.0					A	28.0	VLSGALRF-150200-50

Available on request: • ANSI B16.5 Class 300 langes
• Stainless steel body and langes 304/316



Lined Reducing Flanges

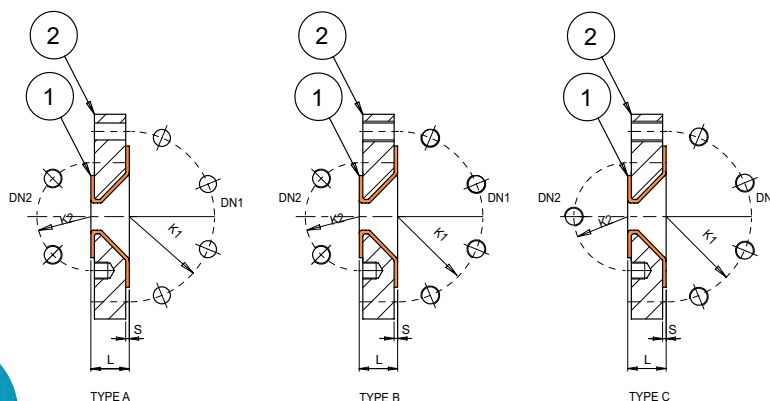
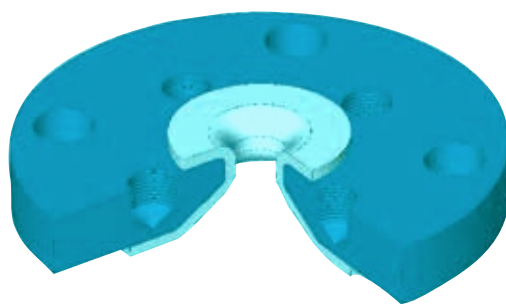
Materials:

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	
10	2"	45	5.0	4.5					A	28.0	VLSGALRF-150250-50
	3"								A	24.0	VLSGALRF-150250-80
	4"								A	22.0	VLSGALRF-150250-100
	6"								A	19.0	VLSGALRF-150250-150
	8"								B	16.0	VLSGALRF-150250-200
12"	2"	50	5.0	4.5					A	44.0	VLSGALRF-150300-50
	3"								A	38.0	VLSGALRF-150300-80
	4"								A	36.0	VLSGALRF-150300-100
	6"								A	31.0	VLSGALRF-150300-150
	8"								A	28.0	VLSGALRF-150300-200
	10"								B	24.0	VLSGALRF-150300-250
14"	2"	50	5.0	4.5					A	56.0	VLSGALRF-150350-50
	3"								A	50.0	VLSGALRF-150350-80
	4"								A	47.0	VLSGALRF-150350-100
	6"								A	42.0	VLSGALRF-150350-150
	8"								A	38.0	VLSGALRF-150350-200
	10"								A	35.0	VLSGALRF-150350-250

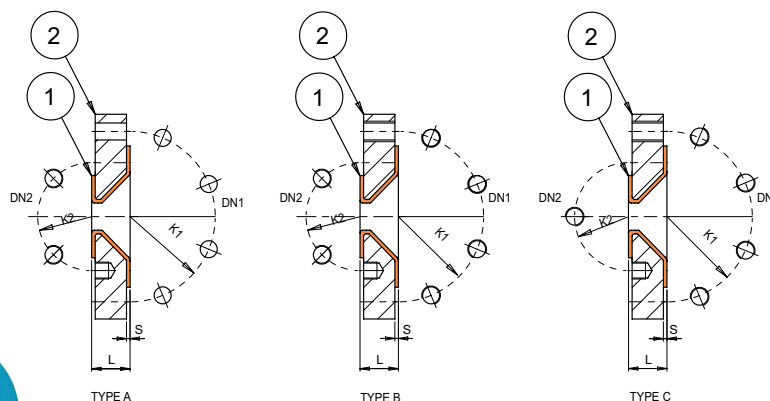
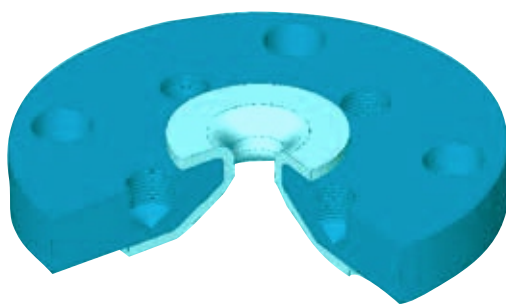
Available on request: • ANSI B16.5 Class 300 langes
• Stainless steel body and langes 304/316



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	
14"	2"	50	5.0	4.5					A	56.0	VLSGALRF-150350-50
	3"								A	50.0	VLSGALRF-150350-80
	4"								A	47.0	VLSGALRF-150350-100
	6"								A	42.0	VLSGALRF-150350-150
	8"								A	38.0	VLSGALRF-150350-200
	10"								A	35.0	VLSGALRF-150350-250
	12"								B	33.0	VLSGALRF-150350-300
16"	3"	50	5.0	4.5					A	71.0	VLSGALRF-150400-80
	4"								A	68.0	VLSGALRF-150400-100
	6"								A	62.0	VLSGALRF-150400-150
	8"								A	60.0	VLSGALRF-150400-200
	10"								A	55.0	VLSGALRF-150400-250
	12"								A	49.0	VLSGALRF-150400-300
	14"								B	40.0	VLSGALRF-150400-350
18"	4"	50	5.0	4.5					A	77.0	VLSGALRF-150450-100
	6"								A	72.0	VLSGALRF-150450-150

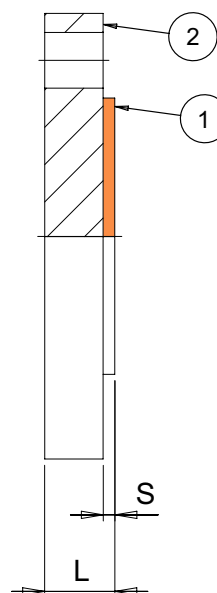
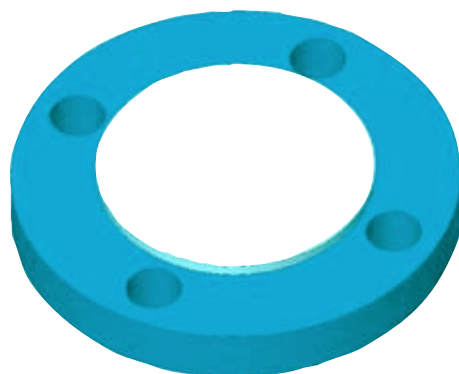
Available on request: • ANSI B16.5 Class 300 langes
• Stainless steel body and langes 304/316



Lined Blind Flange

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	L	PTFE	Weight Kg	Part. No
		s ± 10%		
		mm		
1/2"	14	4	0.8	VLSGALBF-15012
3/4"	16	4	0.9	VLSGALBF-15019
1"	17	4	1.2	VLSGALBF-15025
1 1/4 "	19	4	1.8	VLSGALBF-15032
1 1/2 "	20	4	2.1	VLSGALBF-15038
2"	22	4	3.0	VLSGALBF-15050
2 1/2 "	25	4	4.0	VLSGALBF-15062
3"	28	4	5.0	VLSGALBF-15080
4"	28	5	6.0	VLSGALBF-150100
5"	28	5	9.1	VLSGALBF-150125
6"	30	5	11.8	VLSGALBF-150150
8"	33	5	18.0	VLSGALBF-150200
10"	35	5	26.0	VLSGALBF-150250
12"	37	5	35.0	VLSGALBF-150300
14"	40	5	45.0	VLSGALBF-150350
16"	42	5	60.0	VLSGALBF-150400
18"	45	5	70.0	VLSGALBF-150450
20"	48	5	85.0	VLSGALBF-150500
24"	50	5	150.0	VLSGALBF-150600

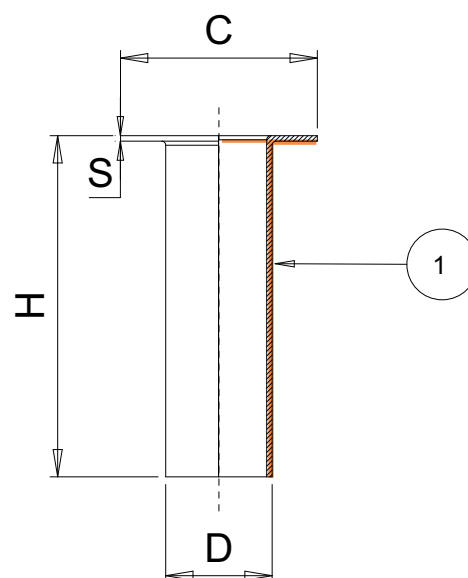
Available on request: • ANSI B16.5 Class 300 langes
• Stainless steel body and langes 304/316



Nozzle Liner

Materials:

1 PTFE white ASTM – D4894/5



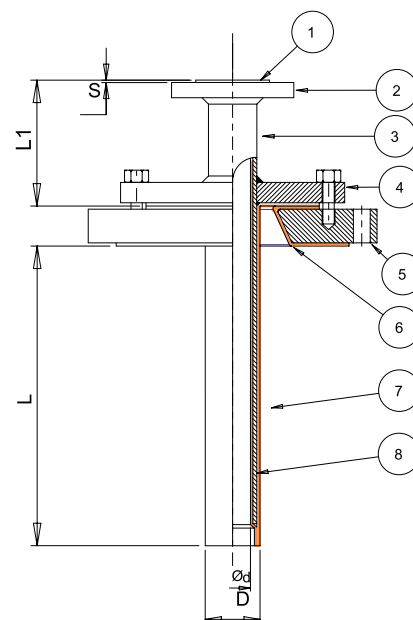
LINING MATERIALS					
Nozzle DN	D	C	H	S	Part. No
			max		
	mm	mm	mm	mm	
1.5"	40	73	1500	3	VLSGANL-15038
2"	46	92	1500	3.5	VLSGANL-15050
2.5"	60	115	1500	4	VLSGANL-15062
3"	78	127	1500	4	VLSGANL-15080
4"	92	158	1500	4	VLSGANL-150100
5"	130	170	1500	4	VLSGANL-150125
6"	148	210	1500	4	VLSGANL-150150
8"	180	265	1500	6	VLSGANL-150200
10"	231	320	1500	6	VLSGANL-150250
12"	278	370	1500	6	VLSGANL-150300
14"	294	412	1000	6	VLSGANL-150350
16"	357	470	1000	6	VLSGANL-150400
18"	412	520	1000	6	VLSGANL-150450
20"	440	585	1000	6	VLSGANL-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	D	d	S	Part. No
			mm	mm	mm	mm	mm	
1"	please indicate in your request	33.4 * 3.38	5000	150	40	20	3	VLSGALDP-15025
1.5"		48.26 * 3.88	5000	150	56	33.5	3.5	VLSGALDP-15038
2"		60.33 * 3.91	5000	150	69	44.5	4	VLSGALDP-15050
2.5"		73.03 * 5.16	5000	150	81	54.7	4	VLSGALDP-15062
3"		88.9 * 5.49	5000	150	97	70	4	VLSGALDP-15080
4"		114.3 * 6.02	4000	150	123	94.3	4	VLSGALDP-150100
5"		141.3 * 6.55	4000	150	150	120	4	VLSGALDP-150125
6"		168.3 * 7.11	4000	150	177	146	4	VLSGALDP-150150
8"		219.08 * 8.18	4000	150	227	195	4	VLSGALDP-150200
10"		273.05 * 9.27	3000	150	281	246.5	4	VLSGALDP-150250
12"		323.95 * 9.53	3000	150	332	297	4	VLSGALDP-150300
14"		355.6 * 9.53	3000	150	364	328.5	4	VLSGALDP-150350
16"		406.4 * 9.53	3000	150	364	379	4	VLSGALDP-150400
18"		457.2 * 9.53	3000	150	466	430	4	VLSGALDP-150450
20"		506 * 9.53	3000	150	515	479	4	VLSGALDP-150500

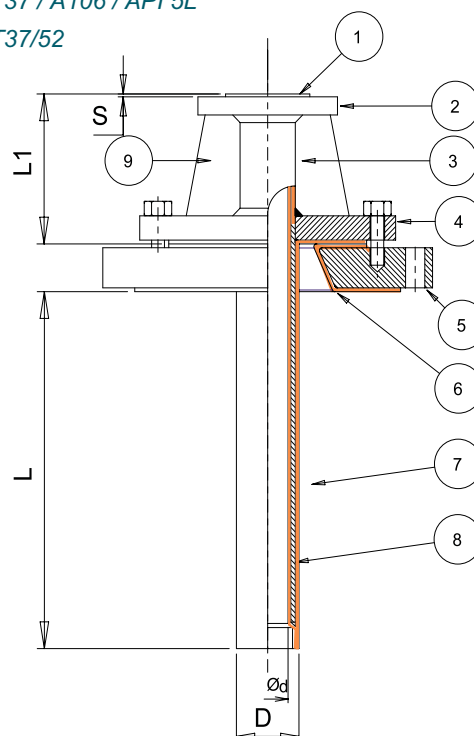


Lined Dip-Pipe Heavy Duty

Materials:

- .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 A105 / ST37
- 6.0 PTFE Paste white ASTM – D4895/D4894

- 16.1 PTFE Granular white ASTM – D4895
- 7.0 PTFE Paste white ASTM – D4895/D4894
- 7.1 PTFE Granular white ASTM – D4895
- 7.2 PFA ASTM D3307
- 7.3 PVDF ASTM D3222
- 7.4 PP ASTM D4101
- 8.0 ST37 / A106 / API 5L
- 9.0 ST37/52



LINING MATERIALS								
Nozzle DN	DN2	Steel pipe	L max	L1				Part. No
					D	d	S	
					mm	mm	mm	
1"	please indicate in your request	33.4 * 4.55	5000	150	40	18	3	VLSGALDPHD-15025
1.5"		48.26 * 5.08	5000	150	56	31	3.5	VLSGALDPHD-15038
2"		60.33 * 5.54	5000	150	69	41.3	4	VLSGALDPHD-15050
2.5"		73.03 * 7.01	5000	150	81	51	4	VLSGALDPHD-15062
3"		88.9 * 7.62	5000	150	97	65.6	4	VLSGALDPHD-15080
4"		114.3 * 8.56	4000	150	123	89.2	4	VLSGALDPHD-150100
5"		141.3 * 9.53	4000	150	150	114	4	VLSGALDPHD-150125
6"		168.3 * 10.97	4000	150	177	138	4	VLSGALDPHD-150150
8"		219.08 * 12.7	4000	150	227	185.6	4	VLSGALDPHD-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

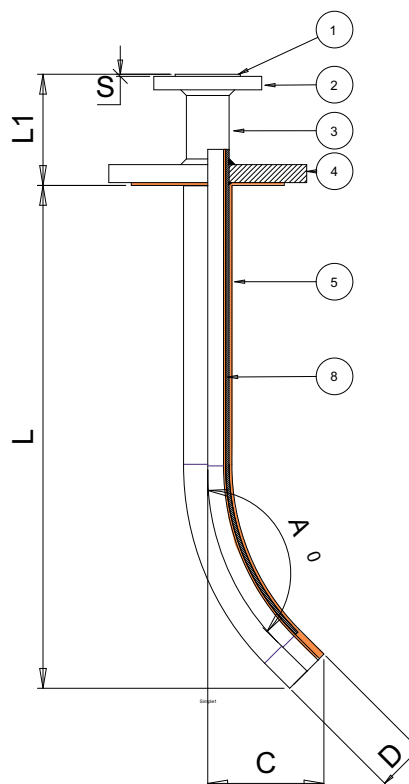
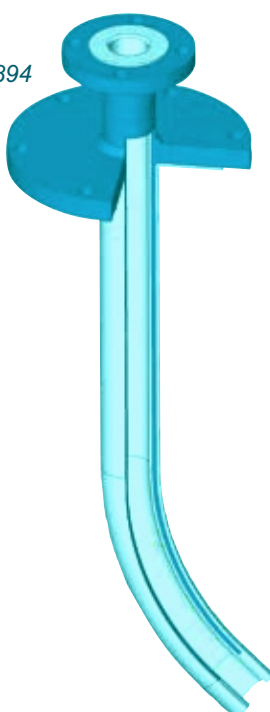
5.1 PTFE Granular white ASTM – D4895

5.2 PFA ASTM D3307

5.3 PVDF ASTM D3222

5.4 PP ASTM D4101

8.0 ST37 / A106 / API 5L



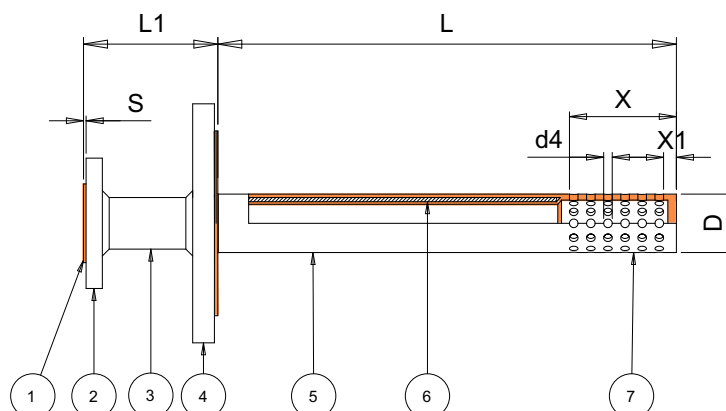
LINING MATERIALS									
Nozzle DN	DN2	Steel pipe	L max	L1	D	A	C	S	Part. No
						max			
			mm	mm	mm	deg	mm	mm	
1"	please indicate in your request	33.4 * 3.38	2000	150	40	60	500	3	VLSGALBDP-15025
1.5"		48.26 * 3.88	2000	150	56	60	500	3.5	VLSGALBDP-15038
2"		60.33 * 3.91	2000	150	69	60	500	4	VLSGALBDP-15050
2.5"		73.03 * 5.16	800	150	81	60	400	4	VLSGALBDP-15062
3"		88.9 * 5.49	800	150	97	60	400	4	VLSGALBDP-15080
4"		114.3 * 6.02	800	150	123	60	400	4	VLSGALBDP-150100
5"		141.3 * 6.55	800	150	150	60	300	4	VLSGALBDP-150125
6"		168.3 * 7.11	800	150	177	60	300	4	VLSGALBDP-150150
8"		219.08 * 8.18	800	150	227	60	250	4	VLSGALBDP-150200
10"		273.05 * 9.27	800	150	281	60	250	4	VLSGALBDP-150250
12"		323.95 * 9.53	800	150	332	60	150	4	VLSGALBDP-150300
14"		355.6 * 9.53	800	150	364	60	150	4	VLSGALBDP-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	
1"	please indicate in your request	33.4 * 3.38	3000	150	40	300	15	4	3	VLSGALSr-15025
1.5"		48.26 * 3.88	3000	150	56	300	150	4	3.5	VLSGALSr-15038
2"		60.33 * 3.91	3000	150	69	300	20	6	4	VLSGALSr-15050
2.5"		73.03 * 5.16	3000	150	81	300	20	6	4	VLSGALSr-15062
3"		88.9 * 5.49	3000	150	97	300	20	8	4	VLSGALSr-15080
4"		114.3 * 6.02	3000	150	123	300	20	8	4	VLSGALSr-150100
5"		141.3 * 6.55	3000	150	150	300	20	8	4	VLSGALSr-150125
6"		168.3 * 7.11	3000	150	177	300	20	10	4	VLSGALSr-150150
8"		219.08 * 8.18	3000	150	227	300	20	10	4	VLSGALSr-150200
10"		273.05 * 9.27	1000	150	281	300	20	10	4	VLSGALSr-150250
12"		323.95 * 9.53	1000	150	332	150	30	14	4	VLSGALSr-150300
14"		355.6 * 9.53	1000	150	364	150	30	14	4	VLSGALSr-150350
16"		406.4 * 9.53	1000	150	364	150	30	16	4	VLSGALSr-150400
18"		457.2 * 9.53	1000	150	466	150	30	16	4	VLSGALSr-150450
20"		506 * 9.53	1000	150	515	150	30	16	4	VLSGALSr-150500



Bellows Con 1

Materials:

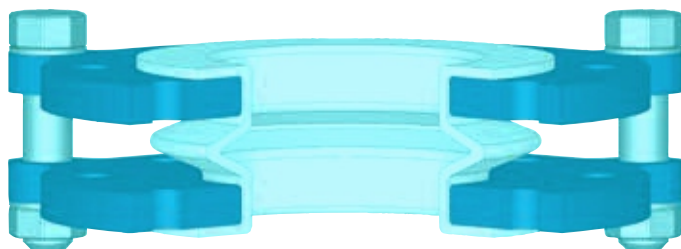
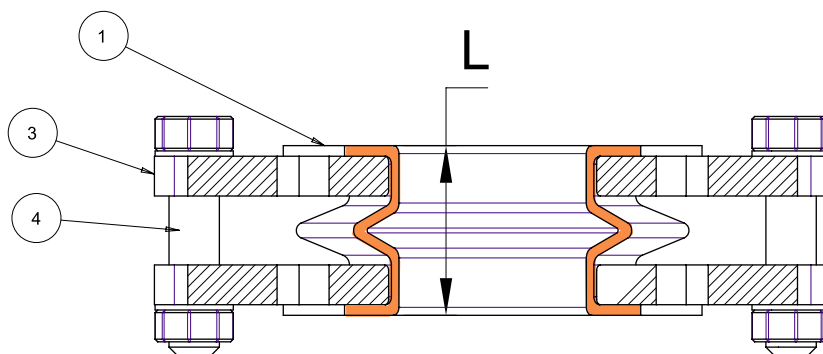
1 PTFE white ASTM – D4894/5

2 A105 / ST37

2.1 St 37.0 - DIN 17100

3.0 Coated Steel Bolt

4.0 SS316



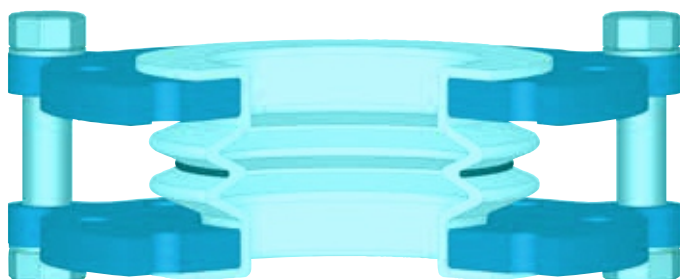
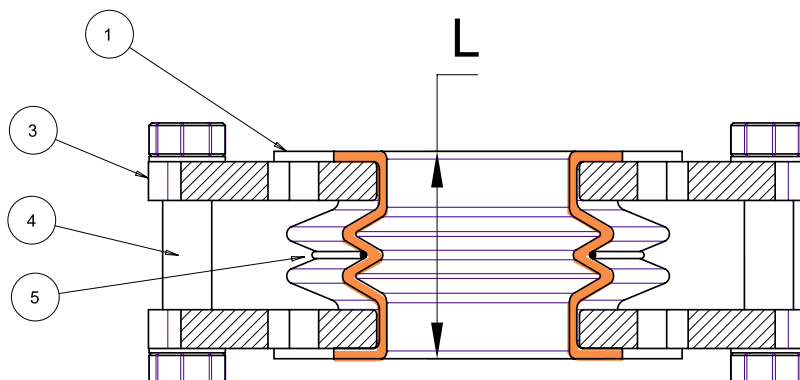
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
1"	40	5	2	2	15	5	VLSGABC-1-15025
1.5"	40	5	2	2	15	5	VLSGABC-1-15040
2"	48	6	2	2	14	5	VLSGABC-1-15050
3"	60	7	3	3	12	4	VLSGABC-1-15080
4"	64	8	3	3	12	4	VLSGABC-1-150100
6"	75	8	4	4	9	3	VLSGABC-1-150150
8"	85	10	4	4	6	2	VLSGABC-1-150200
10"	92	10	5	3	6	2	VLSGABC-1-150250
12"	100	12	5	3	6	2	VLSGABC-1-150300
14"	102	12	5	3	4	1.5	VLSGABC-1-150350
16"	102	12	5	3	4	1.5	VLSGABC-1-150400
18"	104	12	5	3	3	0.75	VLSGABC-1-150450
20"	104	12	5	3	2	0.75	VLSGABC-1-150500
24"	104	12	5	3	2	0.75	VLSGABC-1-150600



Bellows 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



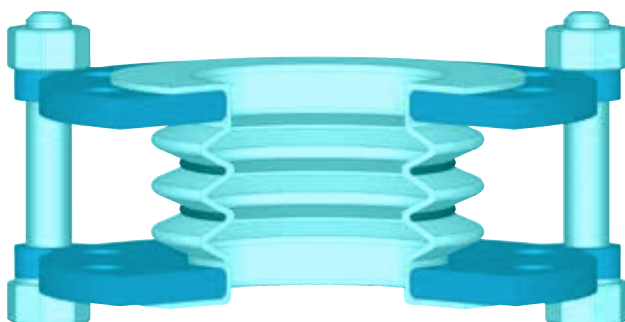
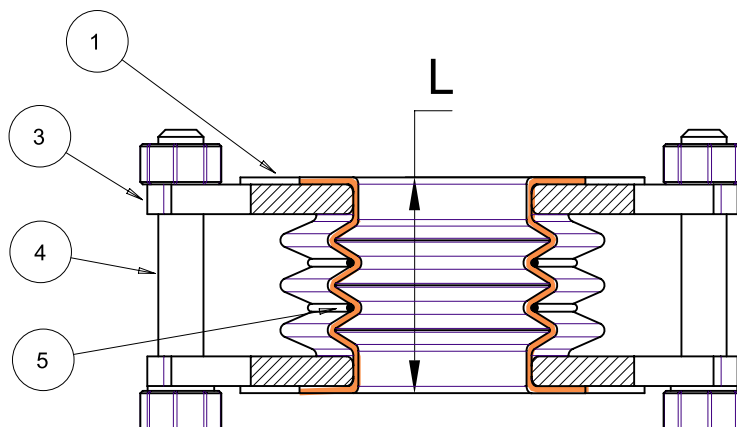
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
1"	35	6	3	7	14.5	4.5	VLSGABC-2-15025
1.5"	35	6	3	7	14.5	4.5	VLSGABC-2-15040
2"	40	6	3	7	13.5	4.5	VLSGABC-2-15050
3"	57	9	5	7	11.5	3.75	VLSGABC-2-15080
4"	67	13	6	7	11.5	3.75	VLSGABC-2-150100
6"	75	13	6	7	9	2.75	VLSGABC-2-150150
8"	102	13	6	7	6	2	VLSGABC-2-150200
10"	140	15	6	7	6	2	VLSGABC-2-150250
12"	150	20	10	7	6	1.75	VLSGABC-2-150300
14"	160	20	10	7	4	1.25	VLSGABC-2-150350
16"	178	25	10	7	4	1.25	VLSGABC-2-150400
18"	185	25	10	7	3	0.5	VLSGABC-2-150450
20"	230	25	10	7	2	0.5	VLSGABC-2-150500
24"	160	20	10	7	2	0.5	VLSGABC-2-150600



Bellows 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



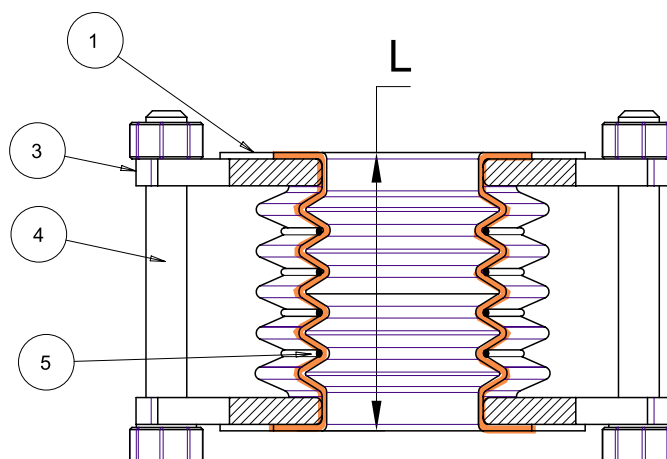
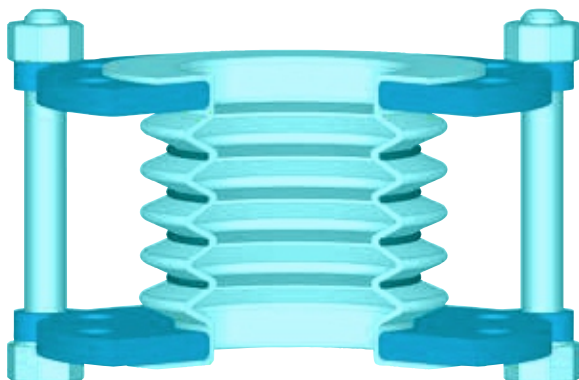
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
1"	46	10	6	14	12	4	VLSGABC-3-15025
1.5"	46	15	6	14	12	4	VLSGABC-3-15040
2"	56	15	9	14	12	4	VLSGABC-3-15050
3"	77	25	13	14	10	3.5	VLSGABC-3-15080
4"	91	25	13	14	10	3.5	VLSGABC-3-150100
6"	101	28	12	14	8	3	VLSGABC-3-150150
8"	137	28	14	14	6	2	VLSGABC-3-150200
10"	200	30	14	14	6	2	VLSGABC-3-150250
12"	196	30	15	14	5	1.5	VLSGABC-3-150300
14"	215	32	18	14	3	1	VLSGABC-3-150350
16"	233	34	20	14	3	1	VLSGABC-3-150400
18"	280	34	20	14	2.5	0.75	VLSGABC-3-150450
20"	327	32	25	14	2	0.5	VLSGABC-3-150500
24"	302	32	25	14	2	0.5	VLSGABC-3-150600



Bellows 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



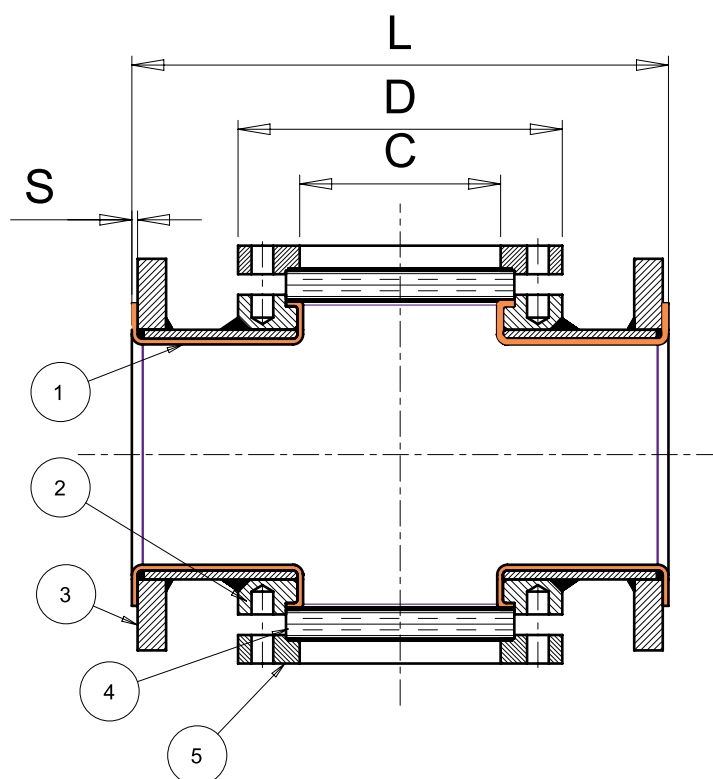
LINING MATERIALS							
DN	L	Axial movement	Lateral movement	Angular movement	Max pressure bar	Max pressure bar	Catalog number
		+/- mm	mm	Degrees	20 deg c	180 deg c	
1"	68	8	12	20	9	3	VLSGABC-5-15025
1.5"	80	13	12	20	9	3	VLSGABC-5-15040
2"	88	19	12	20	9	3	VLSGABC-5-15050
3"	113	25	16	20	7.5	2.5	VLSGABC-5-15080
4"	139	25	16	20	7.5	2.5	VLSGABC-5-150100
6"	153	32	16	20	6	2.5	VLSGABC-5-150150
8"	207	32	16	20	4	1.5	VLSGABC-5-150200
10"	300	32	16	20	4	1.5	VLSGABC-5-150250
12"	288	35	16	20	4	1.5	VLSGABC-5-150300
14"	325	35	18	20	2.75	0.75	VLSGABC-5-150350
16"	343	40	25	20	2.75	0.75	VLSGABC-5-150400
18"	470	40	25	20	2.75	0.5	VLSGABC-5-150450
20"	520	40	25	20	1	0.3	VLSGABC-5-150500
24"	520	32	20	20	1	0.3	VLSGABC-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 | ASTM A 105 SLIP-ON |
| 1.4 | ETFE ASTM D3159 | 3.1 | ASTM A 105 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 | | |



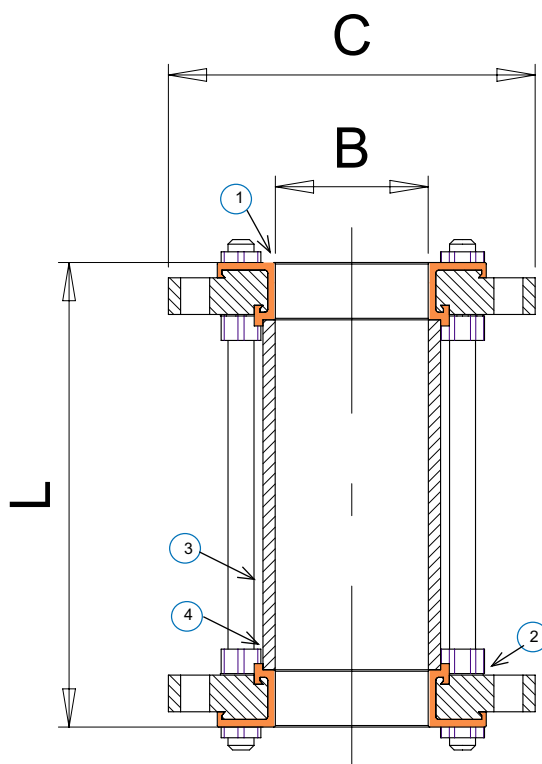
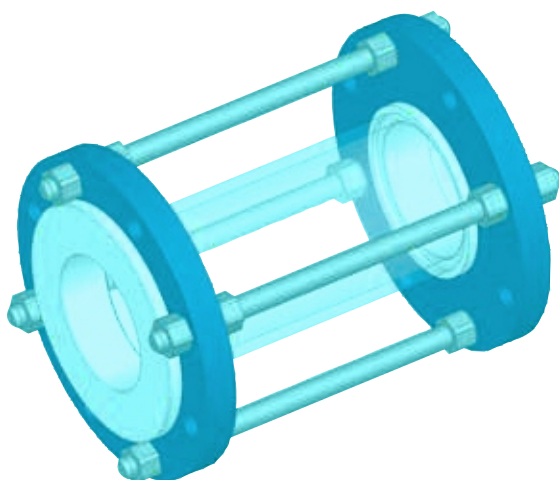
LINING MATERIALS				
DN	A mm	B mm	S mm	Part. No
1"	150	60	3	VLSGALSG-15025
1.5"	156	80	3	VLSGALSG-15040
2"	160	100	3	VLSGALSG-15050
3"	176	132	3	VLSGALSG-15080
4"	190	160	3	VLSGALSG-150100
6"	220	220	3	VLSGALSG-150150
8"	260	275	3	VLSGALSG-150200
10"	285	330	3	VLSGALSG-150250
12"	315	390	3	VLSGALSG-150300
14"	330	420	3	VLSGALSG-150350
16"	360	480	3	VLSGALSG-150400



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



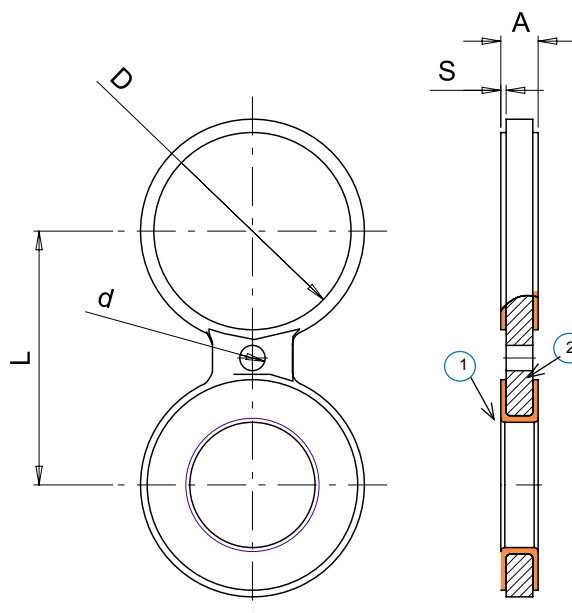
LINING MATERIALS						
DN	L mm	S mm	C mm	D mm	Weight Kg	Part. No
1"	180	3	40	120	4.2	VLSGALTG-15025
1.5"	205	3	48	128	7.5	VLSGALTG-15040
2"	230	4	80	164	12.0	VLSGALTG-15050
3"	280	4	100	185	25.5	VLSGALTG-15080
4"	310	4.5	125	215	45.0	VLSGALTG-150100
6"	406	5	137	242	90.0	VLSGALTG-150150
8"	458	6	165	270	130.0	VLSGALTG-150200
10"	530	6	215	320	170.0	VLSGALTG-150250
12"	610	6	265	370	240.0	VLSGALTG-150300
14"	690	6	315	430	330.0	VLSGALTG-150350
16"	740	6	360	470	395.0	VLSGALTG-150400
18"	812	6	410	520	495.0	VLSGALTG-150450
20"	870	5	460	570	625.0	VLSGALTG-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 | | |



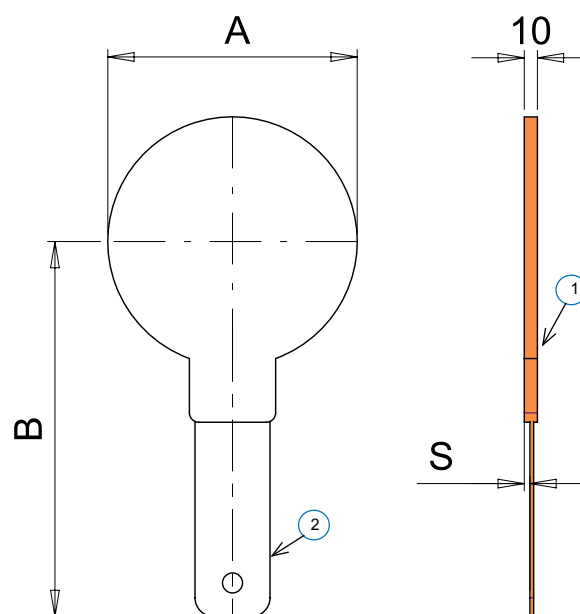
LINING MATERIALS						
DN	A mm	L mm	D mm	d mm	S mm	Part. No
1"	20	79.4	51	15.9	3	VLSGALS-15025
1.5"	24	98.4	73	15.9	3	VLSGALS-15040
2"	24	120.6	92	19.0	4	VLSGALS-15050
3"	26	152.4	127	19.0	4	VLSGALS-15080
4"	28	190.5	158	19.0	5	VLSGALS-150100
6"	32	241.3	216	22.2	5	VLSGALS-150150
8"	32	299.4	270	22.2	5	VLSGALS-150200
10"	32	361.9	324	25.4	5	VLSGALS-150250
12"	35	431.8	381	25.4	5	VLSGALS-150300
14"	42	476.2	412	28.6	5	VLSGALS-150350
16"	47	539.7	470	28.6	5	VLSGALS-150400
18"	50	577.8	534	31.8	4	VLSGALS-150450
20"	52	635.0	584	31.8	4	VLSGALS-150500
24"	55	749.3	692	35.1	4	VLSGALS-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		



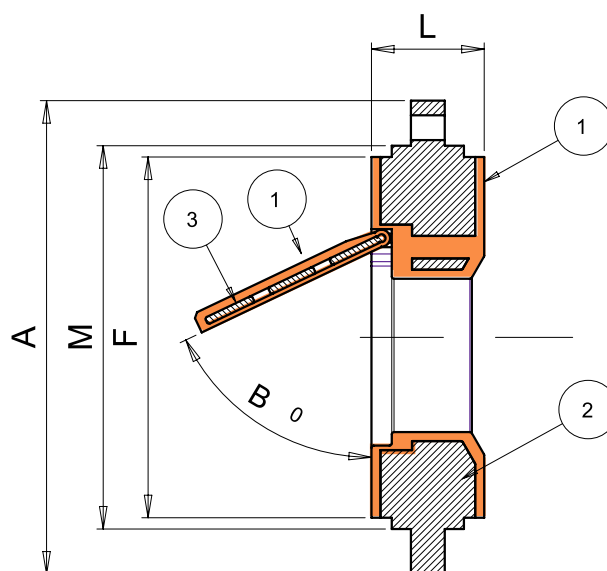
LINING MATERIALS				
DN	L mm	B mm	C mm	Part. No
1"	152	20	108	VLSGALSd-15025
1.5"	178	36	127	VLSGALSd-15040
2"	203	42	152	VLSGALSd-15050
3"	241	72	190	VLSGALSd-15080
4"	292	103	229	VLSGALSd-150100
6"	356	152	279	VLSGALSd-150150



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



LINING MATERIALS								
DN	L mm	C mm	A mm	F mm	M mm	Open angle	Weight Kg	Part. No
2"	43	26	140	91	96	62	2.5	VLSGALSCV-15050
3"	46	45	170	125	130	65	4.2	VLSGALSCV-15080
4"	52	65	208	156	162	65	6.7	VLSGALSCV-150100
6"	56	104	270	214	219	65	11.5	VLSGALSCV-150150
8"	60	145	320	268	274	65	19.0	VLSGALSCV-150200
10"	68	185	400	323	330	65	29.0	VLSGALSCV-150250
12"	78	230	230	380	390	65	50.0	VLSGALSCV-150300
14"	78	232	252	412	422	65	63.0	VLSGALSCV-150350
16"	102	300	575	468	478	65	105.0	VLSGALSCV-150400