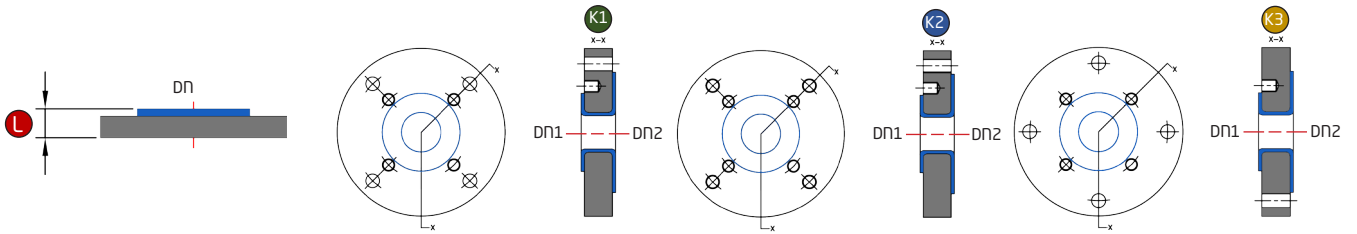


DN2 \ DN1	-	20	25	32	40	50	65	80	100	125	150	200	250	300
20	95 65													
25	110 70	125 110, 95	50, 90											
32	130 80	130 130, 100	130 50, 100 130, 110											
40	150 90	145 150, 110	145 50, 110 150, 100	150 150, 130			75, 110							
50	120 80		160 50, 115 120, 110	165 120, 130	165 120, 150									
65	140 85		50, 125 140, 130	180 140, 150	180 140, 120	185								
80	165 100		50, 135 165, 120	185 165, 150	190 165, 120	190 165, 140								
100	205 115		50, 150 205, 150	75, 150	200 205, 120	200 205, 140	205 205, 165							
125	245 135		50, 160	75, 160	90, 160	230 245, 140	235 245, 165	235 245, 205						
150	285 150		50, 180	75, 180	90, 180		250 285, 165	250 285, 205	250 285, 245					
200	365		50, 210	75, 210	90, 210		270 365, 205	270 365, 245	270 365, 285					
250	450		50, 240	75, 240	90, 240			305 450, 245	305 450, 285	310 450, 365				
300	525		90, 340	110, 340	120, 340				330 525, 285	335 525, 365	340 525, 450			
350	600		90, 375	110, 375	120, 375					465 600, 365	465 600, 450	465 600, 525		

A	D, E
B	F, G
C	H, J



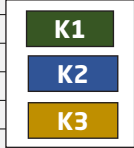
Blank Flanges

Reducing Flange (Type K1)

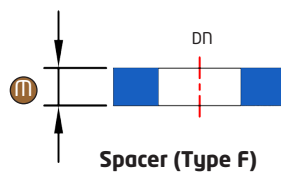
Reducing Flange (Type K2)

Reducing Flange (Type K3)

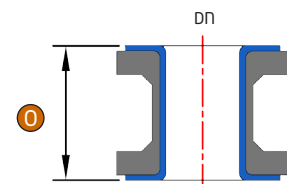
DN2 \ DN1	L	20	25	32	40	50	65	80	100	125	150	200	250	300
20	21													
25	21	35												
32	21	35	35											
40	21	35	35	35										
50	21	35	35	35	35									
65	21	35	35	35	35	35								
80	23.5		35	35	35	35	35							
100	24.5		45	45	45	45	45	45						
125	26.5			45	45	45	45	45	45					
150	27				45	45	45	45	45	45				
200	29					45	45	45	45	45	45			
250	31						45	45	45	45	45	45		
300	31							50	50	50	50	50	50	
350	31								50	50	50	50	50	50



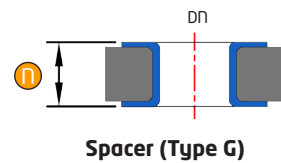
DN	M Max.	N Max.	O Max.
20	25	60	100
25	25	60	100
32	25	60	100
40	25	60	100
50	25	70	150
65	25	70	150
80	25	70	150
100	25	70	150
125	25	70	150
150	25	80	150
200	25	80	200
250	25	80	200
300	25	80	200
350	25	80	200



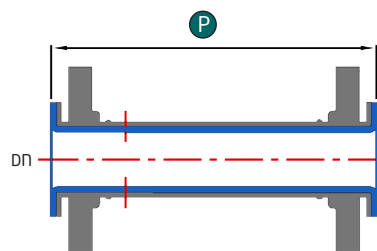
Spacer (Type F)



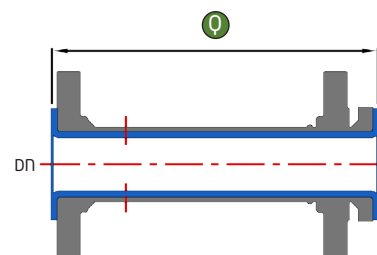
Spacer (Type H)



Spacer (Type G)



Van Stone Spool



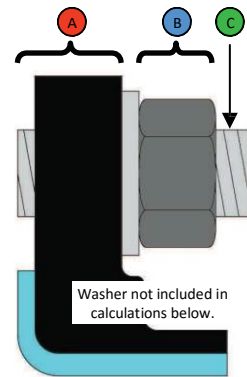
Fixed/Rotating Spool

DN	P Min.	P Max.	Q Min.	Q Max.
20	250	6000	90	6000
25	250	6000	90	6000
32	250	6000	90	6000
40	250	6000	95	6000
50	250	6000	110	6000
65	250	6000	110	6000
80	250	6000	120	6000
100	250	6000	125	6000
125	500	6000	140	6000
150	500	6000	140	6000
200	500	3000	150	3000
250	n/a	3000	165	3000
300	n/a	3000	170	3000
350	n/a	3000	190	3000

## Bolting and torque details

DN	Flange OD	Pitch Circle D	No. of Bolt Holes	Hole D	Bolts/Studs UNC	Bolts/Studs Metric	Torque Nm
DN 15	95	65	4	14	1/2"	M12	7
DN 20	105	75	4	14	1/2"	M12	15
DN 25	115	85	4	14	1/2"	M12	19
DN 40	150	110	4	18	1/2"	M12	27
DN 50	165	125	4	18	5/8"	M16	47
DN 80	200	160	8	18	5/8"	M16	73
DN 100	220	180	8	18	5/8"	M16	54
DN 150	285	240	8	22	3/4"	M20	108
DN 200	340	295	12	22	3/4"	M20	136
DN 250	395	350	12	22	7/8"	M24	127
DN 300	445	400	12	26	7/8"	M24	145

Re-torquing is required 24 hours after installation or after one process cycle.



## Flange thickness for BS EN1092 Part 1 (DIN) PN10 connections for lined equipment.

Nominal Bore	DN	Component	Half Joint Total Thickness
1 in	DN 25	Vanstone Spool	19.5
1 1/2 in	DN 40	Vanstone Spool	21.5
2 in	DN 50	Vanstone Spool	23.5
3 in	DN 80	Vanstone Spool	25.5
4 in	DN 100	Vanstone Spool	31
1 in	DN 25	Standard Spool Fixed Flange	16.5
1 1/2 in	DN 40	Standard Spool Fixed Flange	18.5
2 in	DN 50	Standard Spool Fixed Flange	20.5
3 in	DN 80	Standard Spool Fixed Flange	22.5
4 in	DN 100	Standard Spool Fixed Flange	26
6 in	DN 150	Standard Spool Fixed Flange	26
8 in	DN 200	Standard Spool Fixed Flange	30
1 in	DN 25	Standard Spool Rotating Flange	28.5
1 1/2 in	DN 40	Standard Spool Rotating Flange	30.5
2 in	DN 50	Standard Spool Rotating Flange	34.5
3 in	DN 80	Standard Spool Rotating Flange	38.5
4 in	DN 100	Standard Spool Rotating Flange	42
6 in	DN 150	Standard Spool Rotating Flange	44
8 in	DN 200	Standard Spool Rotating Flange	40.0

Nominal Bore	DN	Component	Half Joint Total Thickness.
1/2 in	DN 15	Fitting Fixed Flange	
3/4 in	DN 20	Fitting Fixed Flange	
1 in	DN 25	Fitting Fixed Flange	18.5
1 1/2 in	DN 40	Fitting Fixed Flange	21
2 in	DN 50	Fitting Fixed Flange	23.5
3 in	DN 80	Fitting Fixed Flange	26
4 in	DN 100	Fitting Fixed Flange	27
6 in	DN 150	Fitting Fixed Flange	29.5
8 in	DN 200	Fitting Fixed Flange	33.5
1/2 in	DN 15	Fitting Rotating Flange	
3/4 in	DN 20	Fitting Rotating Flange	
1 in	DN 25	Fitting Rotating Flange	30.5
1 1/2 in	DN 40	Fitting Rotating Flange	33
2 in	DN 50	Fitting Rotating Flange	37.5
3 in	DN 80	Fitting Rotating Flange	42
4 in	DN 100	Fitting Rotating Flange	43
6 in	DN 150	Fitting Rotating Flange	47.5

Special dimensions are available on request. The data may be subject to revision.

UNC Thread	Thread Pitch (C)	Nut Thickness * [mm] (B)	
		Ordinary	Heavy
1/2"	2.0	11	12
5/8"	2.3	14	16
3/4"	2.5	17	19
7/8"	2.8	19	22
1"	3.0	22	25
Metric Thread	Thread Pitch (C)	Nut Thickness [mm] (B)	
M12	1.75	10	
M16	2.0	13	
M20	2.5	16	
M24	3.0	19	
M27	3.0	22	

\*Assuming nuts are faced one side