

Datasheet

Butterfly valve

VSS LN (Low Noise)

Si-211 EN

Edition: 2020-09

- Advanced triple eccentric design
- Designed for control applications
- Designed for applications up to 550° C (1022° F)
- Solid seat made of stainless steel
- Tightness class in accordance with EN 60534-4 class V as standard
- Trim for noise reduction



Type VSS LN (Low Noise)

Nominal pressure

Nominal size

Material

Wafer design

PN 10 - 25, Class 150

DN 80 - 600, NPS 3 - 24

Stainless steel



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Product Information

The SOMAS butterfly valve, type VSS LN, is a control valve. With a low noise trim, type LN, flashing and cavitation problems can be eliminated and a lower noise level achieved. The valve is designed to handle a wide range of liquids, gases and steam at temperatures up to 550°C (1022°F).

The VSS LN-valve is designed to be mounted between flanges.

The valves have an advanced triple eccentric design including a unique shape of the disc allows the use of a solid stainless steel seat. The solid seat remains unaffected by high flow velocities and a good valve function is achieved even on difficult applications.

The SOMAS valves are delivered ready for installation and operation.

The valve assemblies are tested as complete units with actuators, positioners and accessories.



Tightness class

The tightness class is related to the chosen material in the seat ring.

Standard leakage class	Optional leakage class
EN 60534-4	EN 60534-4
PTFE - Class V	PTFE - Class VI
Metal - Class V	
	EN 12266-1
	PTFE - Rate B
	PTFE - Rate C
	Metal - Rate D

Temperature range

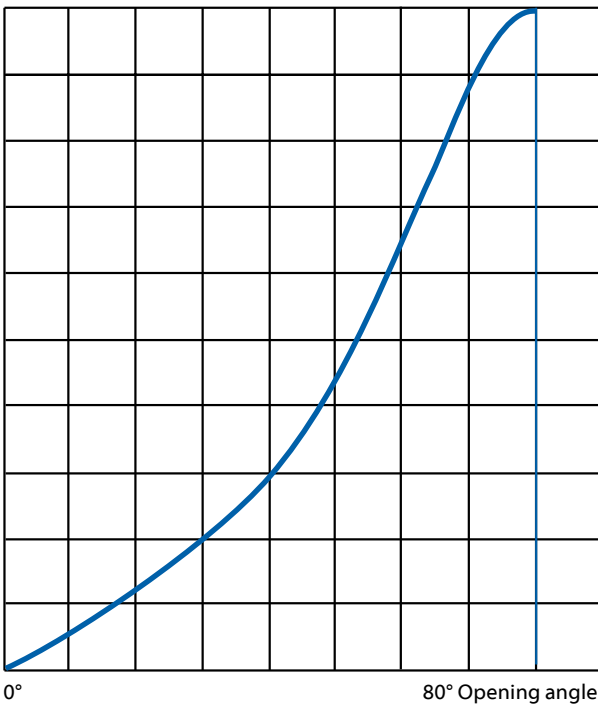
For applications up to 550° C (1022° F).
 Minimum working temperature -60°.
 If lower temperatures are needed contact SOMAS.

Flange standard

The SOMAS butterfly valve type VSS LN in this datasheet is of wafer type for mounting between flanges PN 10, PN 16, Class150 and PN25. When ordering, please state the pressure rating of the counterflanges. See valve specification system, code 13.

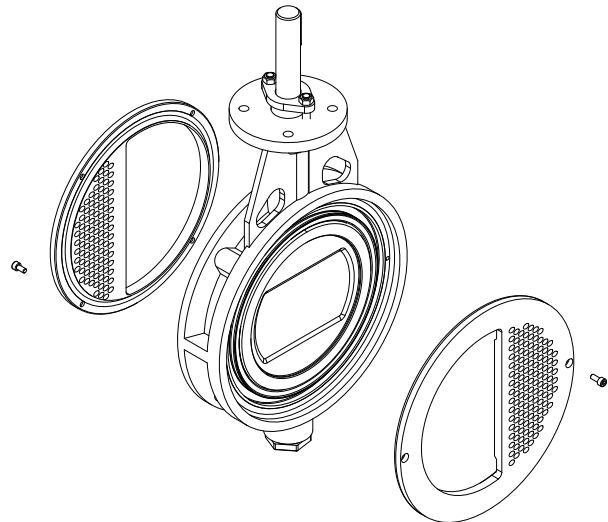
Flow characteristics

100% Flow



Face to face

Face to face according to the EN 558 series 20.



Capacity factor Kv

DN	Opening angle								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
80	7.7	17.1	26.4	40.2	59.4	90.8	112	129	129
100	11.6	24.8	38.5	58.9	86.9	132	178	206	206
125	19.3	41.3	63.8	97.3	144	220	286	333	333
150	27.5	59.4	92.4	141	208	319	429	498	498
200	49	106	164	251	371	567	765	886	886
250	78.1	169	262	400	592	908	1216	1405	1405
300	114	245	381	582	861	1320	1770	2046	2046
350	153	331	514	785	1161	1777	2388	2761	2761
400	204	440	683	1044	1545	2365	3176	3671	3671
450	257	556	861	1316	1948	2987	4005	4628	4628
500	321	692	1073	1640	2427	3718	4989	5767	5767
600	469	1011	1568	2396	3546	5434	7291	8429	8429

Relation between Kv and Cv: Cv = 1,156 x Kv

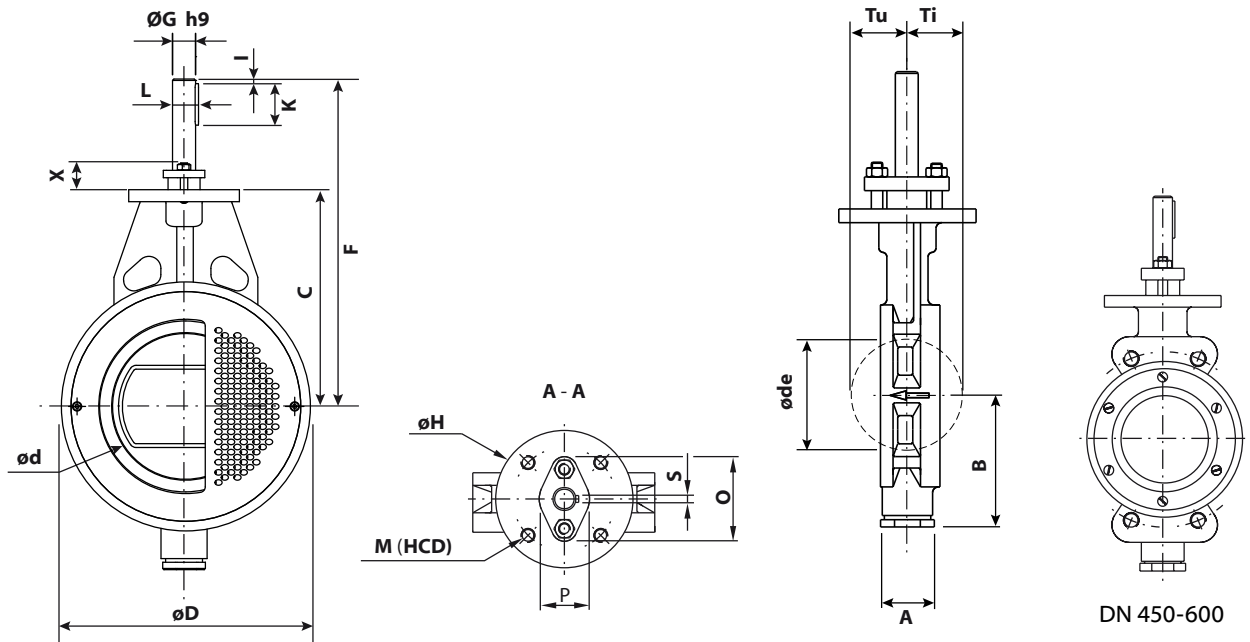


Capacity factor Cv

US

NPS	Opening angle								
	10°	20°	30°	40°	50°	60°	70°	80°	90°
3	9	20	31	47	69	106	130	150	150
4	13	29	45	68	101	153	207	240	240
5	22	48	74	113	167	256	333	387	387
6	32	69	107	164	242	371	499	579	579
8	57	123	191	292	431	659	890	1030	1030
10	91	197	305	465	688	1056	1414	1634	1634
12	133	285	443	677	1001	1535	2058	2379	2379
14	178	385	598	913	1350	2066	2777	3210	3210
16	237	512	794	1214	1797	2750	3693	4269	4269
18	299	647	1001	1530	2265	3473	4657	5381	5381
20	373	805	1248	1907	2822	4323	5801	6706	6706
24	545	1176	1823	2786	4123	6319	8478	9801	9801

Relation between Kv and Cv: $Cv = 1,156 \times Kv$



Metric
Butterfly valve type VSS LN

DN	A	B	C	ød	øde	øD	F	øG	øH	I	K	L	M (HCD)	O	P	S	X	Tu	Ti	Weight	
	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(Kg)	
80	48	120	150	70	60	133	270	20	120	5	45	22.5	M12	90	74	44	6	40	41	37	8
100	52	120	163	90	86	160	283	20	120	5	45	22.5	M12	90	74	44	6	40	52	48	10
125	56	135	175	116	110	190	295	20	120	5	45	22.5	M12	90	74	44	6	40	64	60	13
150	56	155	195	140	138	215	315	25	120	5	45	28	M12	90	78	50	8	40	77	73	16
200	60	180	235	187	186	270	355	25	120	5	45	28	M12	90	78	50	8	40	100	96	21
250	68	205	275	236	235	324	410	30	150	5	60	33	M12	120	92	58	8	50	124	120	33
300	78	240	290	285	285	375	425	35	150	5	50	38	M12	120	100	64	10	50	149	145	46
350	78	320	315	331	330	435	450	40	150	5	50	43	M12	120	108	70	12	50	172	167	60
400	102	360	340	382	380	490	540	50	150	10	80	53.5	M12	120	124	82	14	50	199	194	89
450	114	385	370	429	425	535	570	50	150	10	80	53.5	M12	120	124	82	14	50	223	217	114
500	127	415	400	479	475	590	610	60	200	10	90	64	M16	160	147	96	18	60	249	242	163
600	154	475	450	579	575	695	675	70	200	10	110	74.5	M16	160	162	112	20	60	300	292	236

A = Face to face dimension according to EN 558 series 20 (valid for DN100-600/4-24).

øde = Necessary free diameter for the disc under movement.

Sizes and measurements in millimeters (mm). Weights in kilograms (Kg).



US

Butterfly valve type VSS LN

DN	A (in)	B (in)	C (in)	ød (in)	øde (in)	øD (in)	F (in)	øG (in)	øH (in)	I (in)	K (in)	L (in)	M (in)	(HCD) (in)	O (in)	P (in)	S (in)	X (in)	Tu (in)	Ti (in)	Weight (lbs)
3	1.97	4.13	5.91	2.76	2.36	5.24	10.63	0.79	4.72	0.20	1.77	0.89	M12	3.54	2.91	1.73	0.24	1.57	1.61	1.46	18
4	2.05	4.53	6.42	3.54	3.39	6.30	11.14	0.79	4.72	0.20	1.77	0.89	M12	3.54	2.91	1.73	0.24	1.57	2.05	1.89	23
5	2.20	5.12	6.89	4.57	4.33	7.48	11.61	0.79	4.72	0.20	1.77	0.89	M12	3.54	2.91	1.73	0.24	1.57	2.52	2.36	29
6	2.20	5.91	7.68	5.51	5.43	8.46	12.40	0.98	4.72	0.20	1.77	1.10	M12	3.54	3.07	1.97	0.31	1.57	3.03	2.87	36
8	2.36	7.09	9.25	7.36	7.32	10.63	13.98	0.98	4.72	0.20	1.77	1.10	M12	3.54	3.07	1.97	0.31	1.57	3.94	3.78	47
10	2.68	8.07	10.83	9.29	9.25	12.76	16.14	1.18	5.91	0.20	2.36	1.30	M12	4.72	3.62	2.28	0.31	1.97	4.88	4.72	73
12	3.07	9.45	11.42	11.22	11.22	14.76	16.73	1.38	5.91	0.20	1.97	1.50	M12	4.72	3.94	2.52	0.39	1.97	5.87	5.71	102
14	3.07	12.60	12.40	13.03	12.99	17.13	17.72	1.57	5.91	0.20	1.97	1.69	M12	4.72	4.25	2.76	0.47	1.97	6.77	6.57	133
16	4.02	14.17	13.39	15.04	14.96	19.29	21.25	1.97	5.91	0.39	3.15	2.11	M12	4.72	4.88	3.23	0.55	1.97	7.83	7.64	197
18	4.49	15.16	14.57	16.89	16.73	21.06	22.44	1.97	5.91	0.39	3.15	2.11	M12	4.72	4.88	3.23	0.55	1.97	8.78	8.54	252
20	5.00	16.34	15.75	18.86	18.70	23.23	24.02	2.36	7.87	0.39	3.54	2.52	M16	6.30	5.79	3.78	0.71	2.36	9.80	9.53	360
24	6.06	18.70	17.72	22.80	22.64	27.36	26.57	2.76	7.87	0.39	4.33	2.93	M16	6.30	6.38	4.41	0.79	2.36	11.81	11.50	521

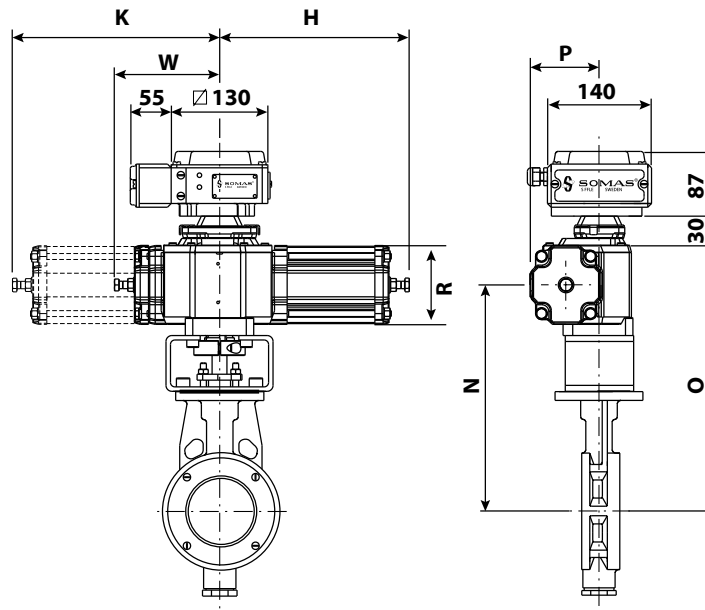
Max. allowable pressure drops/torque figures

Max. allowable pressure drops are valid at 20° C (see below).

Metric / US

Max. allowable pressure drops/torque figures

DN	PN	NPS	Class	Max. pressure drop. bar / psi						Torque min. at ΔP				Torque min. at ΔP				Torque max. Shaft			
				at opening angle						at ΔP				at ΔP							
				0°		60°		80°		bar		psi		Nm		lbs/ft		bar		psi	
80	25	3	150	25	363	13	189	4,4	64	≤ 10	≤ 145	100	74	> 10	> 145	120	89	150	111		
100	25	4	150	25	363	13	189	4,4	64	≤ 10	≤ 145	120	89	> 10	> 145	165	122	220	162		
125	25	5	150	25	363	15	218	5,8	84	≤ 10	≤ 145	180	133	> 10	> 145	220	162	220	162		
150	25	6	150	25	363	9	131	2,7	39	≤ 10	≤ 145	200	148	> 10	> 145	250	184	300	221		
200	25	8	150	25	363	4,3	62	1,1	16	≤ 10	≤ 145	250	184	> 10	> 145	290	214	350	258		
250	25	10	150	25	363	3,6	52	1,05	15	≤ 10	≤ 145	400	295	> 10	> 145	500	369	600	443		
300	25	12	150	20	290	3,6	52	0,93	13	≤ 10	≤ 145	500	369	> 10	> 145	620	457	750	554		
350	25	14	150	20	290	3,6	52	1,09	16	≤ 8	≤ 116	800	590	> 8	> 116	1000	738	1200	1886		
400	25	16	150	20	290	4,7	68	1,43	21	≤ 8	≤ 116	1000	738	> 8	> 116	1350	996	1600	1181		
450	25	18	150	16	232	3,4	49	0,95	14	≤ 7	≤ 102	1350	996	> 7	> 102	1900	1401	2250	1661		
500	25	20	150	15	218	4,4	64	1,19	17	≤ 6	≤ 87	1900	1401	> 6	> 87	2700	1991	3250	2399		
600	25	24	150	10	145	3,9	57	1,13	16	≤ 5	≤ 73	2400	1770	> 5	> 73	2900	2139	3500	2583		



Metric

Butterfly valve type VSS LN with actuator type A-DA

DN	Type	H (mm)	K (mm)	N (mm)	O (mm)	P (mm)	R (mm)	W (mm)	Weight (kg)
80	A13	250	-	275	325	83	106	90	14
80	A21	255	-	295	360	94	106	140	18
100	A21	255	-	305	370	94	106	140	20
100	A22	255	260	305	370	94	106	-	21
125	A22	255	260	320	385	94	106	-	24
150	A22	255	260	340	410	94	106	-	27
200	A22	255	260	380	445	94	106	-	32
250	A23	305	-	420	485	117	152	140	50
250	A31	380	-	470	560	144	152	215	58
300	A31	380	-	485	575	144	152	215	71
300	A32	380	395	485	575	144	152	-	77
350	A32	380	395	525	600	144	152	-	91
400	A32	380	395	570	655	144	152	-	120
400	A33	470	-	570	655	185	230	215	127
450	A34	470	485	600	685	185	230	-	170
450	A41	550	-	645	770	210	230	315	190
500	A41	550	-	675	800	210	230	315	235
500	A42	545	560	675	800	210	230	-	250
600	A41	550	-	725	850	210	230	315	306
600	A42	545	560	725	850	210	230	-	321

Actuator type A-SC/SO

DN	Type	H (mm)	K (mm)	N (mm)	O (mm)	P (mm)	R (mm)	W (mm)	Weight (kg)
80	A23-X	415	-	295	360	117	152	140	25
100	A24-X	415	420	305	370	117	152	-	26
125	A24-X	415	420	320	385	117	152	-	40
150	A24-X	415	420	340	405	117	152	-	43
200	A24-X	415	420	380	445	117	152	-	48
250	A33-X	660	-	470	560	185	230	215	91
300	A33-X	660	-	485	575	185	230	215	104
350	A34-X	665	680	525	610	185	230	-	149
400	A43-X	920	-	615	740	280	355	315	254
450	A43-X	920	-	645	770	280	355	315	280
500	A44-X	925	935	675	600	280	355	-	375
600	A44-X	925	935	725	850	280	355	-	446

X = SC – Spring to close

X = SO – Spring to open

For units with the positioner type SP405, add 2 kg

For units with the positioner type SPE405, add 3 kg

For units with the positioner type TZID-C, add 2.5 kg

For units with the positioner type SP405, add 2 kg
 For units with the positioner type SPE405, add 3 kg
 For units with the positioner type TZID-C, add 2.5 kg



US
Butterfly valve type VSS LN with actuator type A-DA

NPS	Type	H (in)	K (in)	N (in)	O (in)	P (in)	R (in)	W (in)	Weight (lbs)
3	A13	9.84	-	10.83	12.80	3.27	4.17	3.54	31
3	A21	10.04	-	11.61	14.17	3.70	4.17	5.51	39
4	A21	10.04	-	12.01	14.57	3.70	4.17	5.51	45
4	A22	10.04	10.24	12.01	14.57	3.70	4.17	-	47
5	A22	10.04	10.24	12.60	15.16	3.70	4.17	-	53
6	A22	10.04	10.24	13.39	16.14	3.70	4.17	-	60
8	A22	10.04	10.24	14.96	17.52	3.70	4.17	-	71
10	A23	12.01	-	16.54	19.09	4.61	5.98	5.51	110
10	A31	15.16	-	18.50	22.05	5.67	5.98	8.46	127
12	A31	14.96	-	19.09	22.64	5.67	5.98	8.46	157
12	A32	14.96	15.55	19.09	22.64	5.67	5.98	-	170
14	A32	14.96	15.55	20.67	23.62	5.67	5.98	-	201
16	A32	14.96	15.55	22.44	25.79	5.67	5.98	-	265
16	A33	18.50	-	22.44	25.79	7.28	9.06	8.46	280
18	A34	18.50	19.09	23.62	26.97	7.28	9.06	-	375
18	A41	21.65	-	25.39	30.31	8.27	9.06	12.40	419
20	A41	21.65	-	26.57	31.50	8.27	9.06	12.40	518
20	A42	21.46	22.05	26.57	31.50	8.27	9.06	-	551
24	A41	21.65	-	28.54	33.46	8.27	9.06	12.40	675
24	A42	21.46	22.05	28.54	33.46	8.27	9.06	-	708

For units with the positioner type SP405, add 4 lbs
 For units with the positioner type SPE405, add 7 lbs
 For units with the positioner type TZID-C, add 6 lbs

Actuator type A-SC/SO

NPS	Type	H (in)	K (in)	N (in)	O (in)	P (in)	R (in)	W (in)	Weight (lbs)
3	A23-X	16,34	-	11,61	14,17	4,61	5,98	5,51	55
4	A24-X	16,34	-	12,01	14,57	4,61	5,98	5,51	58
5	A24-X	16,34	16,54	12,60	15,16	4,61	5,98	-	88
6	A24-X	16,34	16,54	13,39	15,94	4,61	5,98	-	95
8	A24-X	16,34	16,54	14,96	17,52	4,61	5,98	-	106
10	A33-X	25,98	-	18,50	22,05	7,28	9,06	8,46	200
12	A33-X	25,98	-	19,09	22,64	7,28	9,06	8,46	229
14	A34-X	26,18	26,77	20,67	24,02	7,28	9,06	-	329
16	A43-X	36,22	-	24,21	29,13	11,02	13,98	12,40	560
18	A43-X	36,22	-	25,39	30,31	11,02	13,98	12,40	617
20	A44-X	36,42	36,81	26,57	23,62	11,02	13,98	-	827
24	A44-X	36,42	36,81	28,54	33,46	11,02	13,98	-	983

X = SC – Spring to close

X = SO – Spring to open

For units with the positioner type SP405, add 4 lbs

For units with the positioner type SPE405, add 7 lbs

For units with the positioner type TZID-C, add 6 lbs

Selection table

Metric / US
Pneumatic actuators

Valve DN	NPS	Shaft		Double acting		Spring to close		Spring to open	
		dia. (mm)	dia. (in)	5.5 bar 80 (psi)	4 bar 58 (psi)	5.5 bar 80 (psi)	4 bar 58 (psi)	5.5 bar 80 (psi)	4 bar 58 (psi)
80	3	20	0,79	A13	A21	A23-SC	A23-SC	A23-SO	A23-SOL
100	4	20	0,79	A21	A22	A24-SC	A24-SC	A24-SO	A24-SOL
125	5	20	0,79	A22	A22	A24-SC	A24-SC	A24-SO	A24-SOL
150	6	25	0,98	A22	A22	A24-SC	A24-SC	A24-SO	A24-SOL
200	8	25	0,98	A22	A22	A24-SC	A24-SC	A24-SO	A24-SOL
250	10	30	1,18	A23	A31	A33-SC	A33-SC	A33-SO	A33-SOL
300	12	35	1,38	A31	A32	A33-SC	A33-SC	A33-SO	A33-SOL
350	14	40	1,57	A32	A32	A34-SC	A34-SC	A34-SO	A34-SOL
400	16	50	1,97	A32	A33	A43-SC	A43-SC	A43-SO	A43-SOL
450	18	50	1,97	A41	A34	A43-SC	A43-SC	A43-SO	A43-SOL
500	20	60	2,36	A41	A42	A44-SC	A44-SC	A44-SO	A44-SOL
600	24	70	2,76	A41	A42	A44-SC	A44-SC	A44-SO	A44-SOL



Background

Within the process industry and the energy sector there are a number of applications where process data in combination with standard control valves will result in problems such as erosion and high noise level.

These problems are usually related to high flow velocities and/or pressure drops within the valve caused by the severe nature of a given process's requirement.

By using a standard butterfly valve and adding the SOMAS noise reduction device many severe noise-producing applications can be solved.

Theory

The risk of cavitation is high in liquid applications when combined with high-pressure drops.

Cavitation is a two-stage phenomenon caused by the fluid undergoing two changes of state. The initial pressure of the liquid is reduced to a value below its vapour pressure as it passes through a restriction (valve). This pressure reduction causes vapour voids or bubbles to form, the pressure then recovers to a value greater than the liquid's vapour pressure, causing the voids to collapse or implode back into an all-liquid state. The cavitation process is always accompanied by high noise and if left to itself, will cause severe damage to both the control valve as well as its proximate downstream piping and/or fittings. The second stage is the collapse or implosion of these cavities back into an all-liquid state.

In order to visualize how these phenomena occur in control valves, consider a liquid flowing in a piping system in which a restriction such as a concentric orifice has been placed. In this case, the orifice may be considered analogous to a control valve at some fixed opening. Fig. 1 illustrates the pressures and velocities along the flow stream.

As the fluid stream approaches the restriction in the line, its cross-sectional area must decrease in order to pass through the orifice. The velocity is inversely proportional to the stream area and, therefore, must increase. Immediately downstream of the orifice the stream will reach its minimum cross-section and thus its maximum velocity. This point is called the vena contracta. If the velocity is increased sufficiently, the pressure will fall to the vapour pressure, thus permitting the formation of voids in the stream, which is the first stage of cavitation.

Downstream of the vena contracta, fluid friction

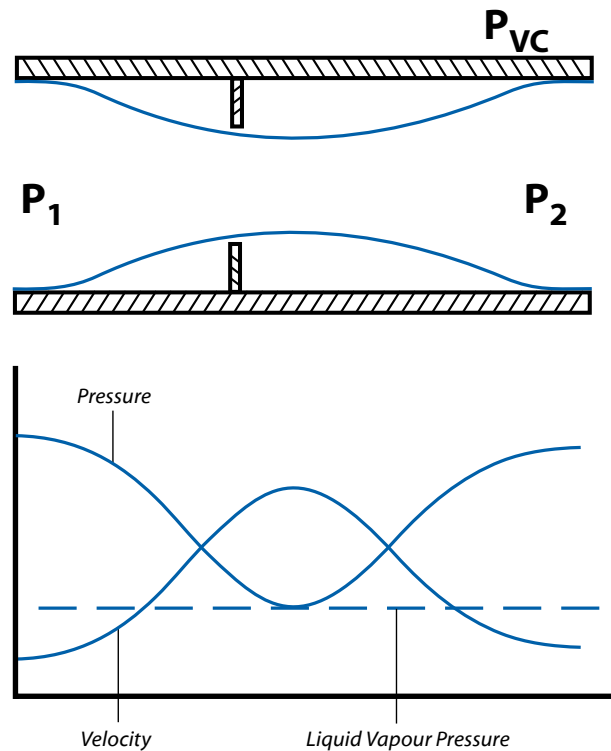


Fig. 1

causes the stream to decelerate with resultant increases in both stream cross-section and pressure. This reversal of energy interchange between the velocity and "pressure recovery" plays an important role in valve sizing.

Vapour bubbles, formed by reducing the pressure at the vena contracta to the vapour pressure, cannot exist at increased pressure downstream and are forced to collapse or implode back into the liquid state.

Should the pressure in the downstream piping system be maintained at a level equal to or less than the inlet vapour pressure, the fluid proceeding downstream would have an increased percentage of vapour. The velocity of the stream would continue to increase and the end result would be flashing rather than cavitation.

Gas

For installations on steam and gas, the noise level is related to high flow velocity due to high differential pressure across the valve. This will normally not influence the lifetime of the valve.

The coverplate on the inlet side as well as the diffuser plate in the outlet of the valve will split up the pressure drop, and the flow velocity inside the valve will be lower. As a result of this, less noise is generated noise.

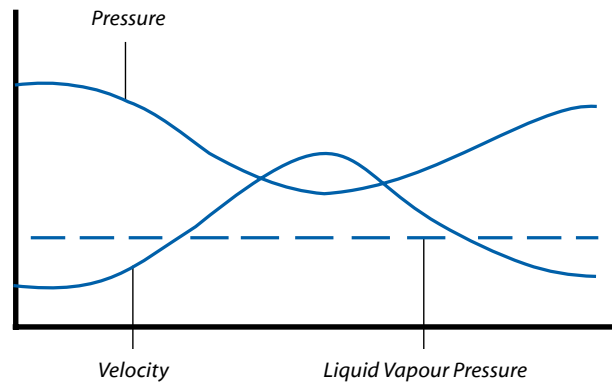
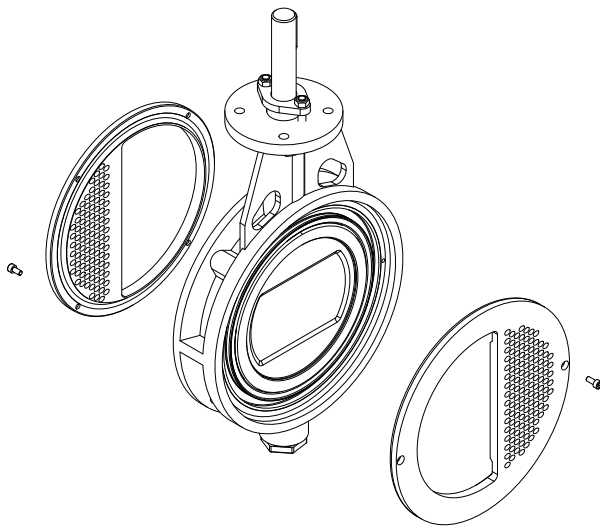


Fig. 2 Pressure and velocity variations with noise reduction trim. Compare with Fig. 1

Valve description

SOMAS butterfly valve type VSS LN is derivative of the standard butterfly valve type VSS. The designation "LN" indicates that the valve is equipped with a noise reduction device which is used to split up the pressure drop across the valve. The result is less pressure recovery, thereby reducing the noise and potential cavitation damage normally generated in a standard butterfly valve (See fig.2).

Temperature range

Seat	Max. temp.
A = PTFE (10 % carbon)	170° C 338° F
D = 1.4462 (metal seat type Y)	350° C ¹ 661° F ¹ 550° C ² 1022° F ²

Shaft	Max. temp.
A = 1.4460	150° C 302° F
B = 1.4460, hard chromed	350° C ¹ 662° F ¹ 550° C ² 1022° F ²
C = 1.4460, HiCo coated	350° C ¹ 662° F ¹ 550° C ² 1022° F ²

Valve body	Max. temp.
A = CF8M	550° C 1022° F

¹ Check with SOMAS for temperatures between 350° C (662° F) and 550° C (1022° F). At higher pressures for example steam turbine applications.

² At lower pressures for example exhaust applications.

Minimum working temperature -60°.

If lower temperatures are needed contact SOMAS.



Supplemental information

Note: Use gaskets with the correct inside diameter to ensure that pressure is applied on the cover plate.

For mounting between flanges according to PN 10-25, the inside gasket diameter should not exceed the dimensions specified in the standard EN 1514-1.

Gaskets according to EN 1514-1

Valve DN	Max. Inside dia. di (mm)	Outside dia. (dy) (mm)		
		PN 10	PN 16	PN 25
80	89	142	142	142
100	115	162	162	168
125	141	192	192	194
150	169	218	218	224
200	220	273	273	284
250	273	328	329	340
300	324	378	384	400
350	356	438	444	457
400	407	489	495	514
450	458	539	555	564
500	508	594	617	624
600	610	695	734	731

Gaskets according to EN 1514-1

Valve NPS	Max. Inside dia. di (in)	Outside dia. (dy)		
		PN 10 (in)	PN 16 (in)	PN 25 (in)
3	3,50	5,59	5,59	5,59
4	4,53	6,38	6,38	6,61
5	5,55	7,56	7,56	7,64
6	6,65	8,58	8,58	8,82
8	8,66	10,75	10,75	11,18
10	10,75	12,91	12,95	13,39
12	12,76	14,88	15,12	15,75
14	14,02	17,24	17,48	17,99
16	16,02	19,25	19,49	20,24
18	18,03	21,22	21,85	22,20
20	20,00	23,39	24,29	24,57
24	24,02	27,36	28,90	28,78



For mounting between flanges according to Class 150 dimensions according to the standard ASME B 16.21 RF are valid where the following dimensions refer to the gasket.

Gaskets according to ASME B 16.21 RF

Valve DN	Max. Inside dia. di (mm)	Outside dia. (dy) (mm) Class 150
80	89	136
100	114	174
125	141	196
150	168	222
200	219	279
250	273	340
300	324	410
350	356	451
400	406	515
450	457	550
500	508	606
600	610	720

Gaskets according to ASME B 16.21 RF

Valve NPS	Max. Inside dia di (in)	Outside dia. (dy) (in) Class 150
3	3,50	5,35
4	4,50	6,85
5	5,50	7,72
6	6,61	8,74
8	8,62	10,98
10	10,75	13,39
12	12,75	16,14
14	14,00	17,76
16	16,00	20,28
18	18,00	21,65
20	20,00	23,86
24	24,00	28,35



Further technical information

Technical data for the materials used in the SOMAS valves, flange standard, steam data, etc. can be found in documents library on www.somas.se.

Valve sizing

Use SOMAS valve sizing program SOMSIZE for valve sizing. All factors needed for the sizing are included in the program.

Ordering

State desired valve according to the valve specification system below as well as type of actuator, positioner and accessories.

Actuators and accessories

The valves can be fitted with SOMAS manual, on/off or control actuators in accordance with the selection table. The valves will then be delivered as tested units ready for installation.

In the documents library on www.somas.se there is also information about positioners, limit switches and solenoid valves.

We can also fit other types of actuators and accessories in accordance with your specification.



Valve specification system

VSS LN - A 5 - A A D - A 1 1 - DN... - D... - B... - PN...

1
2
3
4
5
6
7
8
9
10
11
12
13

1 Type of valve

Wafer design

VSS LN
VSSL LN

2 Valve body design

A = Wafer design according to
EN 558, Series 20

F = Lugged design

3 Nominal pressure

5 = PN 25

4 Material – valve body

A = CF8M / 1.4408 alt. 1.4401

5 Material – disc

A = CF8M/1.4408 alt. 1.4401

B = CF8M/1.4408 alt. 1.4401, hard chromed

C = CF8M/1.4408 alt. 1.4401, HiCo Gr 21 coated

6 Material – seat

A = PTFE (10% carbon, percentage by weight)

D = 1.4462 alt. 1.4470, (metal seat, type Y)

7 Material – shaft

A = 1.4460 alt. SS 2324-12

B = 1.4460 alt. SS 2324-12, hard chromed

C = 1.4460 alt. SS 2324-12, HiCo Gr 6 coated

8 Bearing – valve body/shaft

1 = Without bearings

3 = HiCo Gr 6

7 = 1.4462

9 Stuffing box

1 = Graphite

2 = PTFE

10 Valve size, DN

11 Shaft diameter

12 Actuator mounting flange drilling

13 Drilling, counter flanges, PN/Class

*Other materials are available on request.
Contact Somas for further information.*

SOMAS reserves the right to make improvements without prior notice.



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