Datasheet
Ball valve
SKV, SKVT

Si-706 EN

Edition: 2024-05

- High capacity – full bore design
- Excellent tightness also at low differential pressure due to spring-loaded seats
- Two alternative seat materials
- Hard Chrome plated or HiCo (High Cobalt Alloy) coated ball
- Easy maintenance

	Flanged design			
	Nominal pressure		Nominal size	NPS
Type SKV	PN 40	Class 300	DN 25 - 50	1 - 2
Type SKV	PN 25	Class 150	DN 80 - 400	3 - 16
Type SKVT	PN 25	Class 150	DN 450 - 500	18 - 20

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Product Information

Somas ball valves type SKV and SKVT are designed to meet the requirements of the process industry.

The valves can be used for shut-off as well as control applications within a wide temperature range.

SKV valves in sizes DN25 - 50 has one-piece valve body, while the DN80 - 500 has a 2-piece valve body. The 2-piece valve body is split beside the centreline of the valve shaft.

The valve seats can be replaced without removing the actuator.

The valve can be delivered with valve seats both in PTFE53 (PTFE stabilized with stainless steel powder) and in HiCo (High Cobalt Alloy). HiCo (High Cobalt Alloy) seats are as option available in locked design, scraper design or a combination of both.

In the dimensions DN25 – 400 the valve has a floating ball design with support from the valve seats. The valve has the designation SKV.

In the dimensions DN450 - 500 the ball is supported in the top and bottom by bearings (trunnion supported) and the valve has the designation SKVT.

The Somas valves are delivered ready for installation and operation.

The valve is delivered factory tested as complete units with the actuators, positioners and accessories.

Tightness class

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

Standard leakage class	Optional leakage class
EN 60534-4	**EN 60534-4**
PTFE 53 - Class V	PTFE 53 - Class VI
HiCo - Class IV-S1	HiCo - Class V
	EN 12266-1
	PTFE 53 - Rate D
	PTFE 53 - Rate C
	HiCo - Rate F
	HiCo - Rate E

Valve sizing

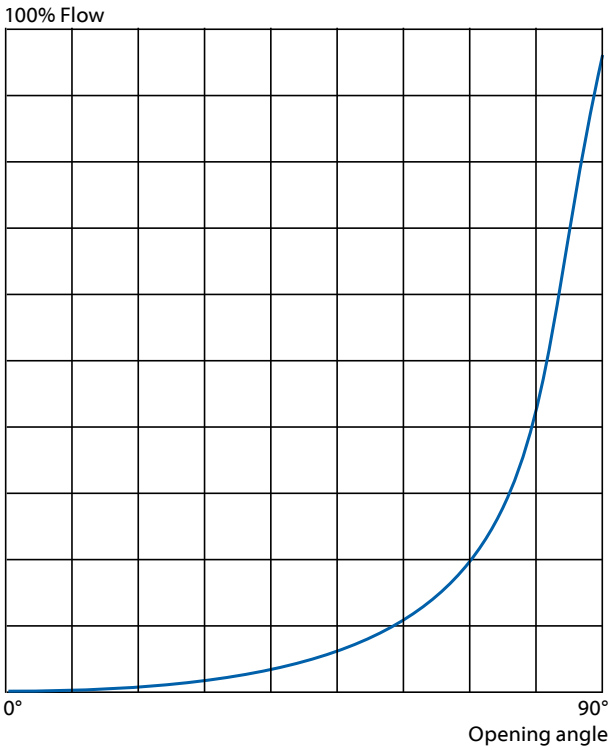
Use Somas valve sizing program SomSize to find the correct valve size. All sizing factors are included in the program.

Factor F_{LP}

	Opening angle								
	10°	**20°**	**30°**	**40°**	**50°**	**60°**	**70°**	**80°**	**90°**
F_{LP1}	0.9	0.9	0.9	0.89	0.84	0.77	0.66	0.52	0.33
F_{LP2}	0,9	0,9	0,9	0,89	0,84	0,76	0,64	0,49	0,31
F_{LP3}	0.9	0.9	0.9	0.89	0.83	0.75	0.63	0.48	0.29

F_{LP1} = One dimension bigger pipe size
F_{LP2} = Two dimensions bigger pipe size
F_{LP3} = Three dimensions bigger pipe size

Flow characteristics



Pressure and temperature rating

Max working pressure in bar (g) for **Stainless Steel 1.4408 or CF8M**

Type	DN	PN	Seat code	Max. working pressure[1] (bar at° C) 0° C	100° C	150° C	200° C	250° C	<280° C
SKV	25-50	40	T (HiCo Gr 6)	40	40	36.3	33,7	31,8	Note 1
			B (PTFE 53)	40	40	36.3	20,15	-	-
	80-400	25	T (HiCo Gr 6)	25	25	22.7	21	19,8	Note 1:
			B (PTFE 53)	25	25	22.7	12,6	-	
SKVT	450-500	25	T (HiCo Gr 6)	25	25	22.7	21	-	-
			B (PTFE 53)	25	25	22.7	12,6	-	-

10 bar = 1 MPa

Note 1: Check with Somas

[1] **NB!** Do not exceed working pressure for the valve.

Minimum working temperature -60°. If lower temperatures are needed contact Somas.

Capacity factor Kv and Resistance factor ζ for ball valve type SKV

	DN	Opening angel 0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	ζ 90°
SKV	25	0	0,35	1,15	2,55	4,6	6	11	19	39	80	0,097
	40	0	1,05	2,58	6	11	16	25	45	93	190	0,112
	50	0	2	5	12	21	30	49	87	182	370	0,072
	80	0	4	12	28	49	72	117	205	430	875	0,085
	100	0	6	26	53	89	135	235	370	705	1650	0,058
	125	0	13	41	82	136	216	408	557	1095	2585	0,058
	150	0	16	61	119	193	330	526	885	1645	3740	0,120
	200	0	35	105	205	340	582	935	1585	2915	6800	0,055
	250	0	61	171	326	552	906	1540	2510	4765	11220	0,049
	300	0	92	241	468	793	1282	2234	3625	6980	16490	0,047
	350	0	127	328	639	1079	1761	3080	4575	8910	20300	0,058
	400	0	145	428	752	1417	2331	4060	6545	12545	26850	0,056
SKVT	450	0	190	545	970	1850	3050	5075	8470	16350	35000	0,053
	500	0	215	688	1204	2279	3741	6020	10320	20081	43000	0,054

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

Necessary closing torque

Ball valve with PTFE 53-seats

	Valve DN	Shaft dia. (mm)	Necessary closing torque (Nm) at Δp (bar) 10	20	30	40	50
SKV	25	15	20	24	32	40	48
	40	15	25	34	44	55	65
	50	20	35	52	72	92	115

Ball valve with HiCo-seats

Valve DN	Shaft dia. (mm)	Necessary closing torque (Nm) at Δp (bar) 10	20	30	40	50
25	15	20	30	40	50	60
40	15	28	42	55	65	74
50	20	43	65	90	115	145

Ball valve with PTFE 53-seats

	Valve DN	Shaft dia. (mm)	Necessary closing torque (Nm) at Δp (bar) 5	10	15	20	25
SKV	80	25	90	120	150	180	220
	100	30	150	200	260	310	380
	125	35	220	320	430	550	680
	150	40	380	540	740	960	1200
	200	50	700	1040	1400	1800	2300
	250	70	1300	1900	2600	3400	4300
	300	80	1900	3000	4200	5500	7000
	350	90	2600	4200	5800	7600	9600
	400	100	3700	6000	8400	11000	14000
SKVT	450	80	2600	4200	6300	7700	9700
	500	80	3860	6085	9270	11395	14000

Ball valve with HiCo-seats

Valve DN	Shaft dia. (mm)	Necessary closing torque (Nm) at Δp (bar) 5	10	15	20	25
80	25	160	210	260	310	360
100	30	260	370	480	590	700
125	35	400	600	800	1000	1200
150	40	650	1050	1400	1800	2200
200	50	1200	2000	2900	3700	4500
250	70	2500	4000	5500	7000	8500
300	80	3800	6000	8400	10600	13000
350	90	5500	9000	12000	15500	19000
400	100	8000	13000	18000	23000	28000
450	80	3900	6200	9500	11700	14500
500	80	5800	9150	13900	17100	21000

Selection table, gear unit (hand operated)

Valve DN	Shaft dia. (mm)	Gear unit for ball valve with PTFE 53-seats at Δp (bar)							
		5	10	15	20	25	30	40	50
25	15	-	AB150N	-	AB150N	-	AB150N	AB150N	AB150N
40	15	-	AB150N	-	AB150N	-	AB150N	AB150N	AB150N
50	20	-	AB215N	-	AB215N	-	AB215N	AB215N	AB215N
80	25	AB215N	AB215N	AB215N	AB215N	AB215N	-	-	-
100	30	AB215N	AB215N	AB215N	AB215N	AB215N	-	-	-
125	35	AB550N	AB550N	AB550N	AB550N	AB550N	-	-	-
150	40	AB550N	AB550N	AB550N	AB550N	AB880N	-	-	-
200	50	AB880N	AB880N	AB880N	AB880N	AB2000N	-	-	-
250	70	AB2000N	AB2000N	AB2000N	AB2000N	AB2000N	-	-	-
300	80	AB2000N	AB2000N	AB2000N	AB1950N/PR4	AB1950N/PR4	-	-	-
350	90	AB3000N	AB2000N/PR4	AB1915N/PR4	AB3000N/PR4	AB3000N/PR6	-	-	-
400	100	AB3000N/PR4	AB3000N/PR4	AB3000N /PR4	AB3000N/PR6	AB6800N/PR6	-	-	-
450	80	AB2000N	AB2000N	AB1950N/PR4	AB3000N/PR4	AB3000N/PR6	-	-	-
500	80	AB2000N	AB1950N/PR4	AB3000N/PR6	AB6800N/PR4	AB6800N/PR6	-	-	-

Valve DN	Shaft dia. (mm)	Gear unit for ball valve with HiCo-seats at Δp (bar)							
		5	10	15	20	25	30	40	50
25	15	-	AB150N	-	AB150N	-	AB150N	AB150N	AB150N
40	15	-	AB150N	-	AB150N	-	AB150N	AB150N	AB150N
50	20	-	AB215N	-	AB215N	-	AB215N	AB215N	AB215N
80	25	AB215N	AB215N	AB215N	AB215N	AB215N	-	-	-
100	30	AB550N	AB215N	AB215N	AB550N	AB550N	-	-	-
125	35	AB550N	AB550N	AB550N	AB550N	AB880N	-	-	-
150	40	AB880N	AB880N	AB880N	AB880N	AB2000N	-	-	-
200	50	AB880N	AB2000N	AB2000N	AB2000N	AB2000N	-	-	-
250	70	AB2000N	AB2000N	AB1950N/PR4	AB1950N/PR4	AB3000N/PR4	-	-	-
300	80	AB2000 N	AB1950N/PR4	AB3000N/PR4	AB3000 N/PR6	AB6800N/PR6	-	-	-
350	90	AB3000N/PR4	AB3000N/PR4	AB6800N/PR4	AB6800N/PR6	A200N/PR10	-	-	-
400	100	AB3000N/PR4	AB6800N/PR6	A200N/PR10	A200N/PR10	A250N/PR10	-	-	-
450	80	AB2000N	AB1950N/PR4	AB3000N/PR6	AB6800N/PR4	AB6800N/PR6	-	-	-
500	80	AB1950N/PR4	AB3000N/PR6	AB6800N/PR6	A200N/PR10	A200N/PR10	-	-	-

Selection table, pneumatic actuators type A-DA (air supply min. 5,5 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A11-DA	A11-DA	A11-DA	A11-DA	A11-DA
	40	15	A11-DA	A11-DA	A11-DA	A11-DA	A13-DA
	50	20	A11-DA	A11-DA	A13-DA	A13-DA	A21-DA

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A11-DA	A11-DA	A11-DA	A11-DA	A13-DA
40	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA
50	20	A13-DA	A13-DA	A13-DA	A21-DA	A21-DA

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A21-DA	A21-DA	A22-DA	A22-DA	A22-DA
	100	30	A22-DA	A22-DA	A22-DA	A23-DA	A31-DA
	125	35	A31-DA	A31-DA	A31-DA	A31-DA	A32-DA
	150	40	A31-DA	A31-DA	A32-DA	A32-DA	A32-DA
	200	50	A32-DA	A32-DA	A41-DA	A41-DA	A42-DA
	250	70	A41-DA	A41-DA	A42-DA	A42-DA	A42-DA
	300	80	A41-DA	A42-DA	A42-DA	A51-DA	A51-DA
	350	90	A51-DA	A51-DA	A51-DA	A51-DA	A52-DA
	400	100	A51-DA	A51-DA	A51-DA	A52-DA	A52-DA
SKVT	450	80	A41-DA	A42-DA	A51-DA	A51-DA	A52-DA
	500	80	A42-DA	A42-DA	A51-DA	A52-DA	A52-DA

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A22-DA	A22-DA	A22-DA	A22-DA	A22-DA
100	30	A22-DA	A23-DA	A31-DA	A31-DA	A32-DA
125	35	A31-DA	A31-DA	A32-DA	A32-DA	A32-DA
150	40	A32-DA	A32-DA	A41-DA	A41-DA	A41-DA
200	50	A32-DA	A41-DA	A42-DA	A42-DA	A42-DA
250	70	A42-DA	A42-DA	A51-DA	A51-DA	A52-DA
300	80	A42-DA	A51-DA	A52-DA	A52-DA	A52-DA
350	90	A51-DA	A52-DA	A52-DA	A52-DA	A52-DA[1]
400	100	A51-DA	A52-DA	A52-DA		
450	80	A42-DA	A51-DA	A52-DA	A52-DA	A52-DA
500	80	A42-DA	A51-DA	A52-DA	A52-DA	X

[1] Air supply = 6 bar

Selection table, pneumatic actuators type A-DA (air supply min. 4 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A11-DA	A11-DA	A11-DA	A11-DA	A11-DA
	40	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA
	50	20	A21-DA	A21-DA	A21-DA	A21-DA	A22-DA

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A11-DA	A11-DA	A11-DA	A13-DA	A13-DA
40	15	A11-DA	A11-DA	A13-DA	A13-DA	A13-DA
50	20	A21-DA	A21-DA	A21-DA	A22-DA	A22-DA

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A21-DA	A22-DA	A22-DA	A22-DA	A22-DA
	100	30	A22-DA	A22-DA	A23-DA	A23-DA	A31-DA
	125	35	A31-DA	A31-DA	A31-DA	A32-DA	A32-DA
	150	40	A31-DA	A32-DA	A32-DA	A33-DA	A41-DA
	200	50	A32-DA	A33-DA	A41-DA	A42-DA	A42-DA
	250	70	A41-DA	A42-DA	A42-DA	A43-DA	A43-DA
	300	80	A42-DA	A42-DA	A43-DA	A44-DA	A52-DA
	350	90	A51-DA	A51-DA	A51-DA	A52-DA	A52-DA
	400	100	A51-DA	A52-DA	A52-DA	A52-DA	
SKVT	450	80	A42-DA	A43-DA	A44-DA	A44-DA	A52-DA
	500	80	A42-DA	A44-DA	A52-DA	A52-DA	A52-DA

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A22-DA	A22-DA	A23-DA	A24-DA	A24-DA
100	30	A23-DA	A24-DA	A24-DA	A32-DA	A33-DA
125	35	A31DA	A32-DA	A32-DA	A33-DA	A33-DA
150	40	A32-DA	A33-DA	A41-DA	A42-DA	A43-DA
200	50	A41-DA	A42-DA	A42-DA	A43-DA	A52-DA
250	70	A42-DA	A43-DA	A51-DA	A52-DA	
300	80	A43-DA	A44-DA	A52-DA	A52-DA	
350	90	A52-DA	A52-DA			
400	100	A52-DA				
450	80	A42-DA	A44-DA	A52-DA	A52-DA	A52-DA
500	80	A44-DA	A52-DA	A52-DA	GP-16OS--485A/D1	GP-16OS--435A/D1

Note! The GP actuators in this table are specified for on/off valves.

Designation for low air supply (4 bar)

The following actuators will have an additional code (L) as the return spring is not the same as in the actuators for 5.5 bar.

SC (Spring closes)
A13-SCL

SO (Spring opens)
A13-SOL, A23-SOL, A24-SOL, A33-SOL, A34-SOL, A43-SOL, A44-SOL

The code for low air supply design has to be specified when ordering.

Selection table, pneumatic actuators type A-SC (air supply min. 5,5 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A13-SC	A13-SC	A13-SC	A13-SC	A13-SC
	40	15	A13-SC	A13-SC	A13-SC	A13-SC	A23-SC
	50	20	A23-SC	A23-SC	A23-SC	A23-SC	A23-SC

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A13-SC	A13-SC	A13-SC	A13-SC	A13-SC
40	15	A13-SC	A13-SC	A13-SC	A23-SC	A23-SC
50	20	A23-SC	A23-SC	A23-SC	A23-SC	A23-SC

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A23-SC	A23-SC	A23-SC	A24-SC	A24-SC
	100	30	A23-SC	A24-SC	A24-SC	A24-SC	A33-SC
	125	35	A33-SC	A33-SC	A33-SC	A33-SC	A34-SC
	150	40	A33-SC	A33-SC	A34-SC	A34-SC	A34-SC
	200	50	A34-SC	A34-SC	A43-SC	A43-SC	A43-SC
	250	70	A43-SC	A43-SC	A44-SC	A44-SC	A44-SC
	300	80	A43-SC	A44-SC			
	350	90					
	400	100					
SKVT	450	80	A44-SC	GP-130S--385A/C1	GP-130S--535A/C6	GP-160S--485A/C2	GP-160S--485A/C3
	500	80	A44-SC	GP-130S--385A/C1	GP-130S--535A/C6	GP-160S--485A/C2	GP-160S--485A/C3

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A24-SC	A24-SC	A24-SC	A33-SC	*
100	30	A24-SC	A33-SC	A33-SC	A33-SC	A34-SC
125	35	A33-SC	A34-SC	A34-SC	A34-SC	A34-SC
150	40	A34-SC	A34-SC	A43-SC	A43-SC	A43-SC
200	50	A34-SC	A43-SC	A44-SC	A44-SC	A44-SC
250	70	A44-SC	A44-SC			
300	80	A44-SC				
350	90					
400	100					
450	80	GP-130S--385A/C3	GP-130S--535A/C6	GP-160S--485A/C3	GP-160S--585A/C4	GP-161S--635A/C5
500	80	GP-130S--385A/C3	GP-130S--535A/C6	GP-160S--485A/C3	GP-160S--585A/C4	GP-161S--635A/C5

SC = Spring to close

Note! The GP actuators in this table are specified for on/off valves.

* See table for low air supply actuators (4 bar).

Selection table, pneumatic actuators type A-SC (air supply min. 4 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A13-SCL	A13-SCL	A13-SCL	A13-SCL	A13-SCL
	40	15	A13-SCL	A13-SCL	A13-SCL	A23-SC	A23-SC
	50	20	A23-SC	A23-SC	A23-SC	A23-SC	A23-SC

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A13-SCL	A13-SCL	A13-SCL	A13-SCL	A23-SC
40	15	A13-SC	A13-SCL	A23-SC	A23-SC	A23-SC
50	20	A23-SC	A23-SC	A23-SC	A23-SC	A23-SC

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A23-SC	A23-SC	A23-SC	A24-SC	A24-SC
	100	30	A23-SC	A24-SC	A24-SC	A24-SC	A33-SC
	125	35	A33-SC	A33-SC	A33-SC	A33-SC	A34-SC
	150	40	A33-SC	A33-SC	A34-SC	A34-SC	A34-SC
	200	50	A34-SC	A34-SC	A43-SC	A43-SC	A43-SC
	250	70	A43-SC	A43-SC	A44-SC	A44-SC	A44-SC
	300	80	A43-SC	A44-SC	A44-SC		
	350	90					
	400	100					
SKVT	450	100	A44-SC	GP-130S--435A/C3	GP-130S--635A/C6	GP-160S--535A/C2	GP-160S--585A/C3
	500	80	A44-SC	GP-130S--435A/C3	GP-130S--635A/C6	GP-160S--535A/C2	GP-160S--585A/C3

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A24-SC	A24-SC	A24-SC	A33-SC	A33-SC
100	30	A24-SC	A33-SC	A33-SC	A33-SC	A34-SC
125	35	A33-SC	A33-SC	A34-SC	A34-SC	A34-SC
150	40	A34-SC	A34-SC	A43-SC	A43-SC	A43-SC
200	50	A34-SC	A43-SC	A44-SC	A44-SC	
250	70	A44-SC	A44-SC			
300	80	A44-SC				
350	90					
400	100					
450	80	GP-130S--485A/C1	GP-130S--635A/C6	GP-160S--585A/C3	GP-160S--685A/C4	GP-161S--735A/C5
500	80	GP-130S--485A/C1	GP-130S--635A/C6	GP-160S--585A/C3	GP-160S--685A/C4	GP-161S--735A/C5

SC = Spring to close

Note! The GP actuators in this table are specified for on/off valves.

Selection table, pneumatic actuators type A-SO (air supply min. 5,5 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A13-SO	A13-SO	A13-SO	A13-SO	A13-SO
	40	15	A13-SO	A13-SO	A13-SO	A13-SO	A23-SO
	50	20	A23-SO	A23-SO	A23-SO	A23-SO	A23-SO

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A13-SO	A13-SO	A13-SO	A13-SO	A13-SO
40	15	A13-SO	A13-SO	A13-SO	A23-SO	A23-SO
50	20	A23-SO	A23-SO	A23-SO	A23-SO	A23-SO

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A23-SO	A23-SO	A23-SO	A24-SO	A24-SO
	100	30	A23-SO	A24-SO	A24-SO	A24-SO	A33-SO
	125	35	A33-SO	A33-SO	A33-SO	A33-SO	A34-SO
	150	40	A33-SO	A33-SO	A34-SO	A34-SO	A34-SO
	200	50	A34-SO	A34-SO	A43-SO	A43-SO	A43-SO
	250	70	A43-SO	A43-SO	A44-SO	A44-SO	A44-SO
	300	80	A43-SO	A44-SO			
	350	90					
	400	100					
SKVT	450	80	A44-SO	GP-085S--385A/O1	GP-100S--535A/O1	GP-130S--535A/O1	GP-130S--585A/O1
	500	80	A44-SO	GP-085S--385A/O1	GP-100S--535A/O1	GP-130S--535A/O1	GP-130S--585A/O1

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A24-SO	A24-SO	A24-SO	A24-SO	A24-SO
100	30	A24-SO	A33-SO	A33-SO	A33-SO	A34-SO
125	35	A33-SO	A34-SO	A34-SO	A34-SO	A34-SO
150	40	A34-SO	A34-SO	A43-SO	A43-SO	A43-SO
200	50	A34-SO	A43-SO	A44-SO	A44-SO	A44-SO
250	70	A44-SO	A44-SO			
300	80	A44-SO				
350	90					
400	100					
450	80	GP-085S--385A/O1	GP-100S--535A/O1	GP-130S--585A/O1	GP-130S--585A/O1	GP-130S--635A/O1
500	80	GP-085S--385A/O1	GP-100S--535A/O1	GP-130S--585A/O1	GP-130S--585A/O1	GP-130S--635A/O1

SO = Spring to open

Note! The GP actuators in this table are specified for on/off valves.

Selection table, pneumatic actuators type A-SO (air supply min. 4 bar)

	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 10	20	30	40	50
SKV	25	15	A13-SOL	A13-SOL	A13-SOL	A13-SOL	A13-SOL
	40	15	A13-SOL	A13-SOL	A13-SOL	A23-SOL	A23-SOL
	50	20	A23-SOL	A23-SOL	A23-SOL	A23-SOL	A23-SOL

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 10	20	30	40	50
25	15	A13-SOL	A13-SOL	A13-SOL	A13-SOL	A23-SOL
40	15	A13-SOL	A13-SOL	A23-SOL	A23-SOL	A23-SOL
50	20	A23-SOL	A23-SOL	A23-SOL	A23-SOL	A23-SOL

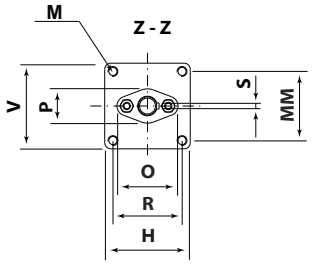
	Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar) 5	10	15	20	25
SKV	80	25	A23-SOL	A23-SOL	A23-SOL	A24-SOL	A24-SOL
	100	30	A23-SOL	A24-SOL	A24-SOL	A24-SOL	A33-SOL
	125	35	A33-SOL	A33-SOL	A33-SOL	A33-SOL	A34-SOL
	150	40	A33-SOL	A33-SOL	A34-SOL	A34-SOL	A34-SOL
	200	50	A34-SOL	A34-SOL	A43-SOL	A43-SOL	A43-SOL
	250	70	A43-SOL	A43-SOL	A44-SOL	A44-SOL	A44-SOL
	300	80	A43-SOL	A44-SOL			
	350	90					
	400	100					
SKVT	450	80	GP-085S--385A/O1	GP-100S--585A/O1	GP-130S--585A/O1	GP-130S--635A/O1	GP-130S--685A/O1
	500	80	GP-085S--385A/O1	GP-100S--585A/O1	GP-130S--585A/O1	GP-130S--635A/O1	GP-130S--685A/O1

Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar) 5	10	15	20	25
80	25	A24-SOL	A24-SOL	A24-SOL	A24-SOL	A24-SOL
100	30	A24-SOL	A33-SOL	A33-SOL	A33-SOL	A34-SOL
125	35	A33-SOL	A33-SOL	A34-SOL	A34-SOL	A34-SOL
150	40	A34-SOL	A34-SOL	A43-SOL	A43-SOL	A43-SOL
200	50	A34-SOL	A43-SOL	A44-SOL	A44-SOL	
250	70	A44-SOL	A44-SOL			
300	80	A44-SOL				
350						
400	100					
450	80	GP-085S--435A/O1	GP-130S--585A/O1	GP-130S--685A/O1	GP-130S--735A/O1	GP-160S--685A/O1
500	80	GP-085S--435A/O1	GP-130S--585A/O1	GP-130S--685A/O1	GP-130S--735A/O1	GP-160S--685A/O1

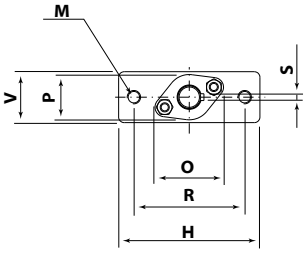
SO = Spring to open

Note! The GP actuators in this table are specified for on/off valves.

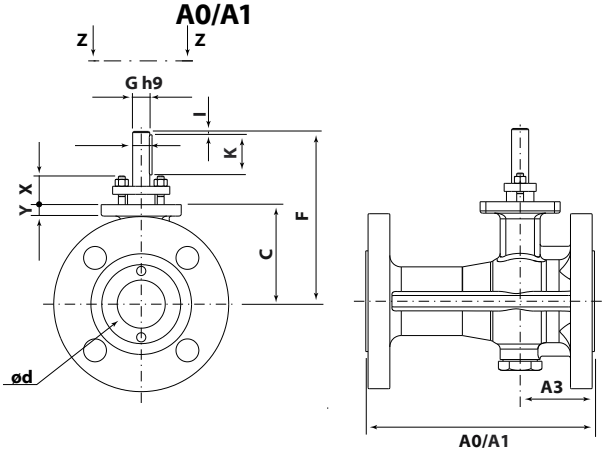
DN25 - 40



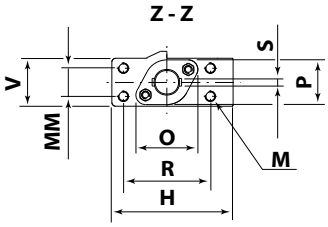
DN50



A0/A1



DN80 - 250



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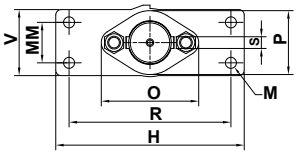
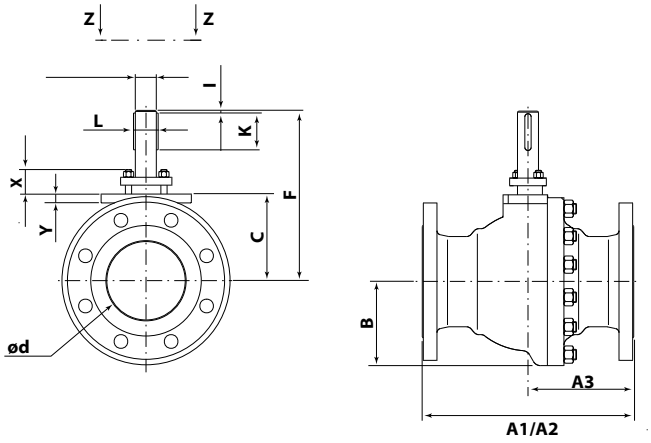
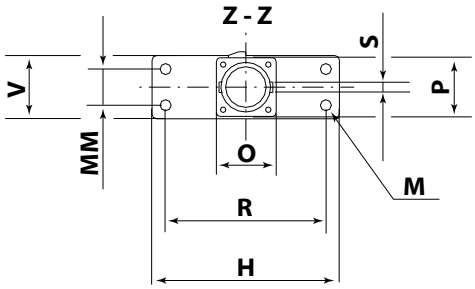


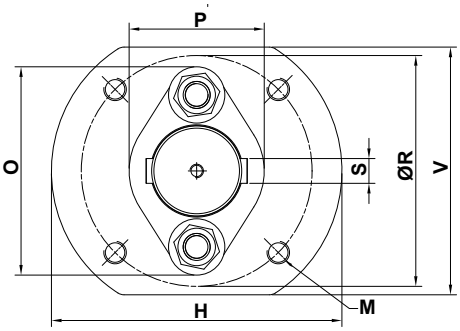
A1/A2



DN350-400



DN450-500



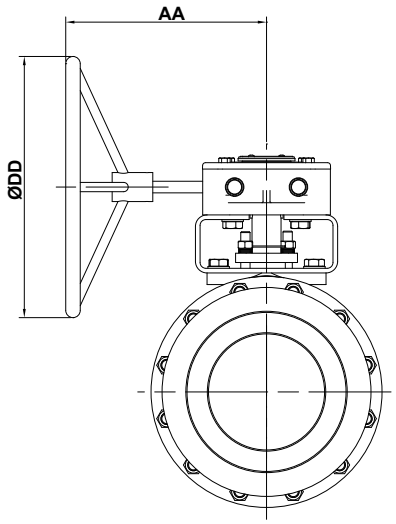
Face to face dimension

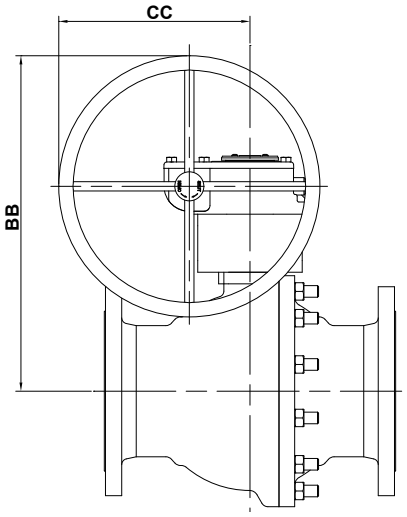
A0 = EN558:2022 Series 1 (DN25-DN50, PN10-40, Class 150- 300)
A1 = EN558:2022 Series 4 (DN25-DN50, PN 10-40, Class 150- 300)
A1 = EN558:2022 Series 4 (DN80-DN500, PN10-25, Class 150)
A2 = EN558:2022 Series 12 (DN450-DN500, PN10-25, Class 150)

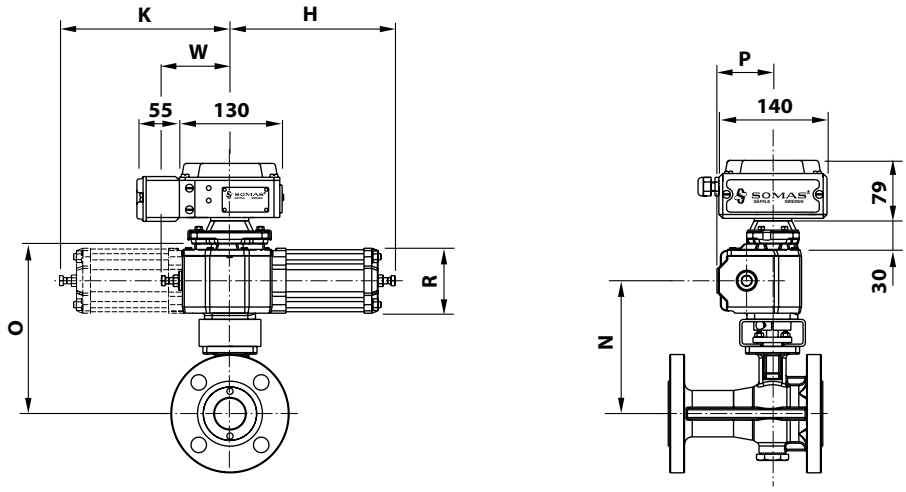
		Somas standard supply		Somas tillval supply		Ball valve type SKV																			
	DN	A0	A1	A1	A2	A3	B	C	ød	F	øG	H	I	K	L	M	MM	O	P	R	øR	S	V	X	Y	Weight
SKV	25	160	–	165	–	60	–	80	25	144	15	70	3	35	17	M8	56,6	50	28	56,6	-	5	70	25	13	5,5
	40	200	–	190	–	65	–	87	40	150	15	72	3	35	17	M8	56,6	50	28	56,6	-	5	72	25	13	9,5
	50	230	–	216	–	75	–	101	50	216	20	125	5	45	22,5	M12	–	61	40	98	-	6	45	25	13	13,5
	80	–	283		–	141,5	100	103	80	185	25	125	3	35	31	M10	24	63	45	98	-	8	48	30	14	27
	100	–	305		–	152,5	121	123	100	231	30	150	5	50	36	M12	24	69	50	123	-	8	54	30	15	40
	125	–	381		–	190,5	143	144	125	273	35	150	5	60	41	M12	32	75	55	123	-	10	60	30	15	60
	150	–	403		–	201,5	160	166	150	325	40	172	5	70	46	M16	44	97	70	136	-	12	75	50	18	83
	200	–	502		–	251	199	205	200	387	50	205	4	80	57	M20	45	106	88	165	-	14	90	50	20	150
	250	–	568		–	284	243	247	250	459,5	70	300	5	100	80	M24	60	140	112	250	-	20	110	60	24	240
	300	–	648		–	324	282	288	300	538	80	354	5	120	90	M24	76	183	120	304	-	22	124	75	24	371
	350	–	762		–	381	328	333	350	590	90	415	5	140	100	M30	80	138	138	355	-	25	140	70	32	557
	400	–	838		–	419	370	376	400	663	100	415	5	170	112	M30	80	150	150	355	-	28	140	72	32	802
SKVT	450	–	914		864	478	413.5	449	450	793	80	258	5	160	90	M20	-	185	120	–	205	22	220	70	28	875
	500	–	991		914	532	434	470	500	814	80	258	5	160	90	M20	-	185	120	–	205	22	220	70	28	952

Ball valve type SKV with gear unit

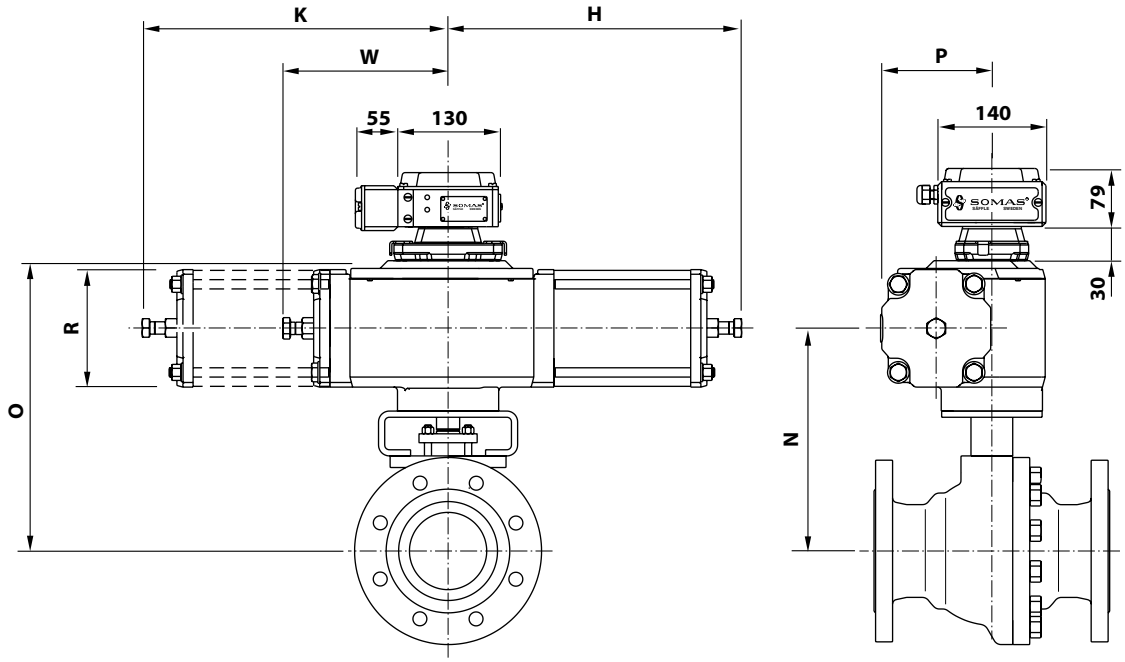
	DN	Type	AA	BB	CC	øDD	Weight
SKV	25	AB150N	158	217	118	150	9,5
	40	AB150N	158	224	118	150	14
	50	AB215N	217	305	152	200	20
	80	AB215N	217	287	152	200	35
	100	AB215N	217	310	152	200	49
	100	AB550N	282	372	221	300	55
	125	AB550N	282	405	221	300	75
	125	AB880N	275	431	261	350	83
	150	AB550 N	282	447	221	300	98
	150	AB880N	275	473	261	350	106
	150	AB2000N	318	562	303	500	122
	200	AB880N	275	522	261	350	176
	200	AB2000N	318	611	303	500	189
	250	AB2000N	318	663	303	500	278
	250	AB1950N/PR4	398	712	430	600	295
	250	AB3000N/ PR4	410	719	440	500	308
	300	AB2000N	318	714	303	500	409
	300	AB1950N/PR 4	398	763	430	600	425
	300	AB3000N/PR 4	410	770	440	600	429
	300	AB6800N/PR 6	451	767	482	600	448
	350	AB3000N/PR 4	410	825	440	600	610
	350	AB6800N/PR 6	451	822	482	600	634
	350	AB2000N/PR 10	471	848	509	600	704
	400	AB3000N/PR 4	410	868	440	600	860
	400	AB6800N/PR 4	451	865	482	600	876
	400	AB200N/PR 10	471	891	509	600	947
	400	AB250N/PR 10	511	891	556	600	1031
	450	AB1950N/PR 4	398	1004	430	600	613
	450	AB3000N/PR 6	410	1011	440	500	606
	450	AB6800N/PR 6	451	1008	482	600	839
	450	AB2000N	471	1034	509	600	948
SKVT	500	AB1950N/PR 4	398	1025	430	500	933
	500	AB3000N/PR 6	410	1032	440	500	939
	500	AB6800N/PR 6	451	1029	482	600	1030
	500	A200N/PR10	471	1055	509	600	1103







DN25 - 50



DN80 - 500

Ball valve type SKV with actuator type A-DA

DN	Type	H	K	N	O	P	R	W	Weight
25	A11	215	–	175	220	73	84	90	10
25	A13	250	–	175	220	83	106	90	12
40	A11	215	–	180	230	73	84	90	15
40	A13	250	–	180	230	83	106	90	17
50	A11	215	–	230	280	73	84	90	18
50	A13	250	–	230	280	83	106	90	20
50	A21	255	–	250	315	94	106	140	23
50	A22	255	260	250	315	94	106	–	25
80	A21	255	–	225	290	94	106	140	36
80	A22	255	260	225	290	94	106	–	37
80	A23	305	–	225	290	117	106	140	43
80	A24	305	310	225	290	117	152	–	44
100	A22	255	260	245	310	94	106	–	51
100	A23	305	–	245	310	117	152	140	56
100	A24	305	310	245	310	117	152	–	57
100	A31	380	–	295	380	144	152	215	65
100	A32	380	395	295	380	144	152	–	71
100	A33	470	–	295	380	183	228	215	78
125	A31	380	–	325	410	144	152	215	85
125	A32	380	395	325	410	144	152	–	91
125	A33	470	–	325	410	183	228	215	98
150	A31	380	–	365	450	144	152	215	108
150	A32	380	395	365	450	144	152	–	114
150	A33	470	–	365	450	183	228	215	121
150	A41	550	–	410	535	211	228	315	160
150	A42	545	560	410	535	211	228	–	175
150	A43	680	–	410	535	279	354	315	235
200	A32	380	395	415	500	144	152	–	190
200	A33	470	–	415	500	183	228	215	195
200	A41	550	–	460	585	211	228	315	230
200	A42	545	560	460	585	211	228	–	245
200	A43	680	–	460	585	279	354	315	300
200	A44	680	695	460	585	279	354	–	315
250	A41	550	–	510	635	211	228	315	320
250	A42	545	560	510	635	211	228	–	335
250	A43	680	–	510	635	279	354	315	390
250	A51	745	–	555	740	314	354	370	445
250	A52	745	695	555	740	314	354	–	485
300	A41	550	–	560	690	211	228	315	435
300	A42	545	560	560	690	211	228	–	450
300	A43	680	–	560	690	279	354	315	505
300	A44	680	695	560	690	279	354	–	520
300	A51	745	–	605	790	314	354	370	565
300	A52	745	760	605	790	314	354	–	600
350	A51	745	–	650	835	314	354	370	760
350	A52	745	760	650	835	314	354	–	795
400	A51	745	–	695	880	314	354	370	1005
400	A52	745	760	695	880	314	354	–	1040

For units with the positioner type SP405, add 2 kg
For units with the positioner type SPE405, add 3 kg

Ball valve type SKV with actuator type A-SC/SO

DN	Type	H	K	N	O	P	R	W	Weight
25	A13-X	325	–	175	220	83	106	90	14
25	A23-X	415	–	205	265	117	152	140	23
40	A13-X	325	–	180	230	83	106	90	18
40	A23-X	415	–	210	275	117	152	140	27
50	A23-X	415	–	250	315	117	152	140	31
80	A23-X	415	–	225	290	117	152	140	43
80	A24-X	415	420	225	290	117	152	–	53
80	A-33-X	660		280	367	183	228	215	64
100	A23-X	415	–	245	310	117	152	140	57
100	A24-X	415	420	245	310	117	152	–	67
100	A33-X	660	–	295	380	183	228	215	103
100	A34-X	665	680	295	380	183	228	–	131
125	A33-X	660	–	325	410	183	228	215	123
125	A34-X	665	680	325	410	183	228	–	155
150	A33-X	660	–	365	450	183	228	215	150
150	A34-X	665	680	365	450	183	228	–	175
150	A43-X	920	–	410	535	279	354	315	250
200	A34-X	665	680	415	500	183	228	–	245
200	A43-X	920	–	460	585	279	354	315	315
200	A44-X	925	935	460	585	279	354	–	370
250	A43-X	920	–	510	635	279	354	315	405
250	A44-X	925	935	510	635	279	354	–	460
300	A43-X	920	–	560	690	279	354	315	520
300	A44-X	925	935	560	690	279	354	–	575

Ball valve type SKV with actuator type A-SC/SO

DN	Type	H	K	N	O	P	R	W	Weight
450	A44-X	925	935	802	928	279	354	–	1098
500	A44-X	925	935	802	928	279	354	–	1175

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

Ball valve type SKVT with actuator type A-DA

DN	Type	H	K	N	O	P	R	W	Weight
450	A41	550	–	802	928	211	228	315	945
450	A42	545	560	802	928	211	228	–	960
450	A43	680	–	802	929	279	354	330	1023
450	A44	680	695	802	929	279	354	–	1032
450	A51	745	–	847	1034	314	354	470	1088
450	A52	745	760	847	1034	314	354	–	1123
500	A-42	545	560	823	949	211	228	–	1037
500	A-43	680	–	823	950	279	354	315	1100
500	A-44	680	695	823	950	279	354	–	1109
500	A52	745	760	868	1055	314	354	–	1200
500	A51	745	–	868	1055	314	354	370	1165

For units with the positioner type SP405, add 2 kg
For units with the positioner type SPE405, add 3 kg

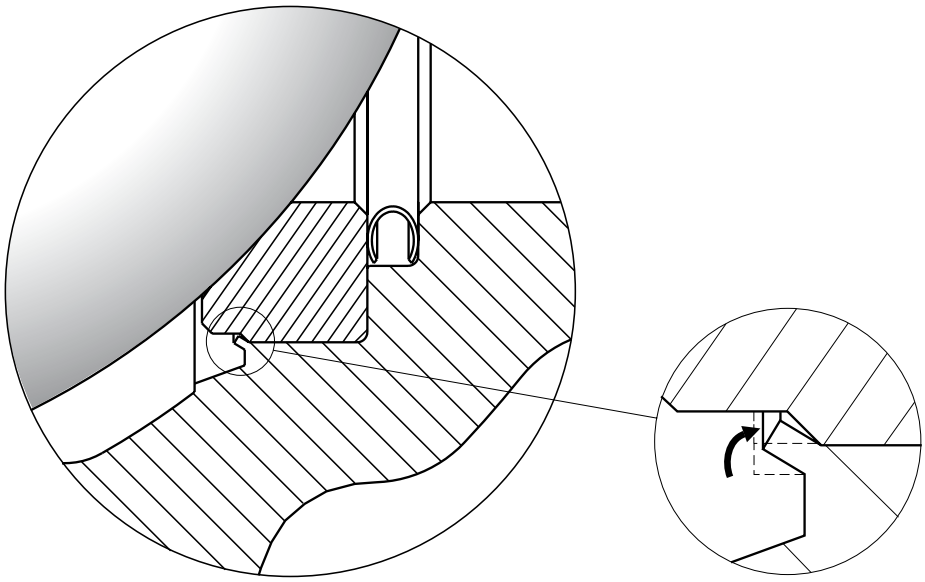


Fig. 1

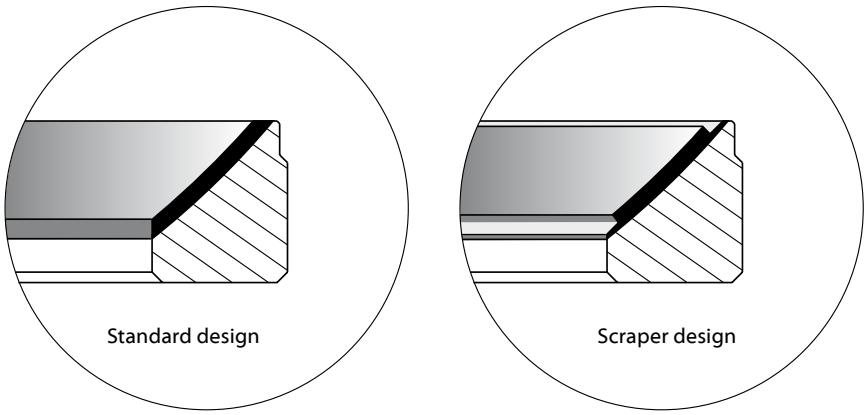


Fig. 2

Flange standard

Somas ball valves type SKV are equipped with flanges. Valves within the dimension range DN25 - 50 can be drilled according to EN PN25, PN40 as well ASME B16.5:2003Class 150, Class 300.

Valves within the dimension range DN80 - 500 can be drilled for EN PN10, PN16 and PN25 as well

ASME B16.5:2003 Class 150.

When ordering, please always state the pressure rating of the counter flanges. See the valve specification system code 13.
Other flange designs can be provided on request.

Alternative seat design

Locked seats: This design is used for applications where the media, by entering behind the seats, will block the rotary motion. The locking is done by pressing the lip in the body on a number of spots towards the seat (see fig. 1).

Scraping seats: For applications where fluid builds up scaling inside the valve. The sharp edge of the scraping seat will scrape off the sealing area (see fig. 2). A combination of locked- and scraping design is also possible.

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.

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

SKVT Trunnion

Ordering

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

SKV - L 5 - A B B - A 1 1 - DN... - D... - B... - PN...
1 2 3 4 5 6 7 8 9 10 11 12 13

Valve specification system

1 Type of valve
Flanged design
SKV - Floating ball

SKVT - Supported ball

2 Valve body design
L = Flanged design

3 Nominal pressure
5 = PN25
6 = PN40, Class 300

4 Material – valve body
A = CF8M / 1.4408
H = 1.4470

5 Material – ball
B = CF8M/1.4408 alt. 1.4401, hard chromed
C = CF8M/1.4408 alt. 1.4401, HiCo Gr 6 alt. Gr 21 coated

Y = 1.4462 alt. 1.4470, hard chromed

6 Material – seat
B = PTFE 53 (50% PTFE + 50% 1.4435 powder (percentage by weight)
T = HiCo Gr 6 alt. 1.4404, HiCo Gr 6 alt. Gr 21 coated

7 Material – shaft
A = 1.4460 alt. SS 2324-12
Z = 1.4462

8 Bearings – valve body/shaft
1 = Without bearing
9 = Inconel 625, Duritex ML coated

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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