



Ball valve Type SKV

Si-706 EN

Edition: 2009-04

Nominal pressure	- PN 50 (DN 25 - 50) PN 25 (DN 80 - 400)
Nominal size	- DN 25 - 400
Material	- Stainless steel

- **High capacity – full bore design**
- **Excellent tightness also at low differential pressure due to spring-loaded seats**
- **Two alternative seat materials**
- **Hardchrome-plated or HiCo-coated ball**
- **Easy maintenance**

SOMAS ball valve type SKV is designed to meet the requirements of the process industry.

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

The valve body is made in one piece for DN 25-50, while DN 80-400 has a 2-piece body. The valve body is split beside the centreline of the shaft.

The seats can be replaced without removing the actuator.

Valve seats in HiCo are also available in locked- alternatively scraping design or a combination of both.

The SOMAS valves are delivered ready for installation and operation.

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





Tightness class

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

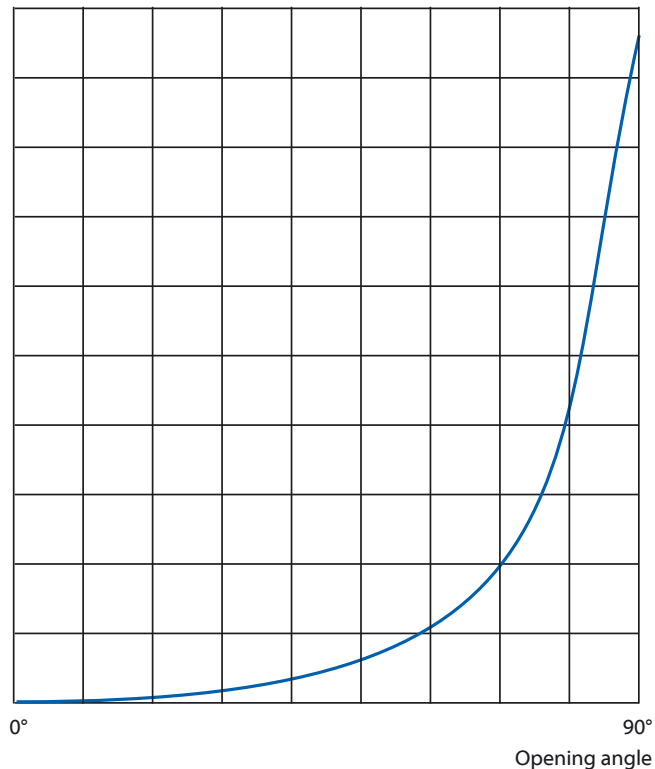
PTFE 53-seat¹ (Code B) IEC 534-4 V

HiCo-seat (Code T) IEC 534-4 IV (on request class V)

¹ 50% PTFE and 50% powder 1.4435.

Flow characteristics

100% Flow



Pipe geometry factor F_P

Valve DN	Pipe DN	Opening angle								
		15°	20°	30°	40°	50°	60°	70°	80°	90°
25	32				1.0	0.99	0.98	0.93	0.82	0.54
	40	1.0	1.0	1.0	0.99	0.98	0.96	0.89	0.73	0.47
	50				0.99	0.98	0.95	0.86	0.64	0.38
40	50				1.0	0.99	0.98	0.95	0.87	0.68
	65	1.0	1.0	1.0	1.0	0.99	0.96	0.89	0.73	0.47
	80				0.99	0.98	0.95	0.86	0.64	0.38
50	65				1.0	0.99	0.97	0.95	0.85	0.62
	80	1.0	1.0	1.0	0.99	0.99	0.96	0.89	0.73	0.47
	100				0.99	0.98	0.95	0.86	0.64	0.38
80	100				1.0	0.99	0.98	0.93	0.82	0.54
	150	1.0	1.0	1.0	0.99	0.98	0.92	0.84	0.64	0.34
	200				0.99	0.97	0.90	0.81	0.58	0.30
100	150				1.0	0.99	0.97	0.91	0.78	0.48
	200	1.0	1.0	1.0	0.99	0.98	0.95	0.86	0.80	0.38
	250				0.99	0.98	0.94	0.83	0.64	0.34
125	125				1.0	1.0	0.99	0.96	0.91	0.71
	200	1.0	1.0	1.0	1.0	0.99	0.97	0.90	0.76	0.46
	250				0.99	0.98	0.95	0.86	0.69	0.39
150	200				1.0	0.99	0.98	0.93	0.84	0.54
	250	1.0	1.0	1.0	0.99	0.98	0.95	0.88	0.72	0.39
	300				0.99	0.97	0.93	0.84	0.66	0.34
200	250				1.0	0.99	0.98	0.95	0.86	0.61
	300	1.0	1.0	1.0	0.99	0.98	0.96	0.90	0.75	0.45
	350				0.99	0.98	0.95	0.87	0.77	0.40
250	300				1.0	1.0	0.99	0.96	0.90	0.69
	350	1.0	1.0	1.0	1.0	0.99	0.98	0.93	0.83	0.56
	400				0.99	0.98	0.96	0.90	0.75	0.45
300	350				1.0	1.0	0.99	0.97	0.93	0.73
	400	1.0	1.0	1.0	1.0	0.99	0.98	0.93	0.83	0.55
	450				0.99	0.98	0.96	0.90	0.76	0.45
350	400				1.0	1.0	0.99	0.97	0.93	0.73
	450	1.0	1.0	1.0	1.0	0.99	0.98	0.93	0.83	0.55
	500				0.99	0.98	0.96	0.90	0.76	0.45
400	450				1.0	1.0	0.99	0.97	0.94	0.77
	500	1.0	1.0	1.0	1.0	0.99	0.98	0.94	0.85	0.58
	600				0.99	0.98	0.95	0.88	0.73	0.42

Pressure and temperature rating

(according to the material in the seats)

Code	Max working pressure (bar at °C)				
	150°	170°	200°	280°	>280°
B	19	18.5	18	—	—
T	19	18.5	18	17	Note

10 bar = 1 MPa

Note: Check with SOMAS

NB! Do not exceed working pressure for the valve.

Liquid pressure recovery factor F_L

Factor	Opening angle								
	15°	20°	30°	40°	50°	60°	70°	80°	90°
F _L	0.9	0.9	0.9	0.89	0.84	0.77	0.66	0.52	0.33

Factor F_L is valid for all sizes.

Factor F_{LP}

Factor	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



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

DN	Opening angle									
	15°	20°	30°	40°	50°	60°	70°	80°	90°	90°
25					6	11	19	39	80	0.08
40			6	11	16	25	45	93	190	0.07
50	2	5	12	21	30	49	87	182	370	0.06
80	4	12	28	49	72	117	205	430	875	0.06
100	6	26	53	89	135	235	370	705	1650	0.06
125	13	41	82	136	216	408	557	1095	2585	0.05
150	16	61	119	193	330	526	885	1645	3740	0.05
200	35	105	205	340	582	935	1585	2915	6800	0.05
250	61	171	326	552	906	1540	2510	4765	11220	0.05
300	92	241	468	793	1282	2234	3625	6980	16490	0.04
350	127	328	639	1079	1761	3080	4575	8910	20300	0.04
400	145	428	752	1417	2331	4060	6545	12545	26850	0.04

Relation between K_V and C_v : $K_V = 0.86 C_v$

Necessary closing torque

Valve DN	Shaft dia. (mm)	Ball valve with PTFE 53-seats Necessary closing torque (Nm) at Δp (bar)					Valve DN	Shaft dia. (mm)	Ball valve with HiCo-seats Necessary closing torque (Nm) at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	20	24	32	40	48	25	15	20	30	40	50	60
40	15	25	34	44	55	65	40	15	28	42	55	65	74
50	20	35	52	72	92	115	50	20	43	65	90	115	145

Valve DN	Shaft dia. (mm)	Ball valve with PTFE 53-seats Necessary closing torque (Nm) at Δp (bar)					Valve DN	Shaft dia. (mm)	Ball valve with HiCo-seats Necessary closing torque (Nm) at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	90	120	150	180	220	80	25	160	210	260	310	360
100	30	150	200	260	310	380	100	30	260	370	480	590	700
125	35	220	320	430	550	680	125	35	400	600	800	1000	1200
150	40	380	540	740	960	1200	150	40	650	1050	1400	1800	2200
200	50	700	1040	1400	1800	2300	200	50	1200	2000	2900	3700	4500
250	70	1300	1900	2600	3400	4300	250	70	2500	4000	5500	7000	8500
300	80	1900	3000	4200	5500	7000	300	80	3800	6000	8400	10600	13000
350	90	2600	4200	5800	7600	9600	350	90	5500	9000	12000	15500	19000
400	100	3700	6000	8400	11000	14000	400	100	8000	13000	18000	23000	28000

Selection table, hand lever

Valve DN	Shaft dia. (mm)	Hand lever for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Hand lever for ball valve with HiCo-seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	HK125	HK125	HK125	HK125	HK125	25	15	HK125	HK125	HK125	HK125	HK125
40	15	HK125	HK125	HK125	HK125	HK125	40	15	HK125	HK125	HK125	HK125	HK125
50	20	HSR20	HSR20	HSR20	HSR20	HSR20	50	20	HSR20	HSR20	HSR20	HSR20	HSR20

Selection table, gear unit (hand operated)

Valve DN	Shaft dia. (mm)	Gear unit for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Gear unit for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	M10/F10	M10/F10	M10/F10	M10/F10	M10/F10	80	25	M10/F10	M10/F10	M10/F10	M10/F10	M10/F10
100	30	M10/F10	M10/F10	M10/F10	M10/F10	M10/F10	100	30	M10/F10	M10/F10	M10/F10	M12/F12	M12/F12
125	35	M12/F12	M12/F12	M12/F12	M12/F12	M12/F12	125	35	M12/F12	M12/F12	M12/F12	M12/F12	M14/F14
150	40	M12/F12	M12/F12	M12/F12	M12/F12	M14/F14	150	40	M12/F12	M14/F14	M14/F14	M14/F14	M15/F14
200	50	M14/F16	M14/F16	M14/F16	M14/F16	M15/F16	200	50	M14/F16	M15/F16	M15/F16	M16/F16	M16/F16
250	70	M15/F16	M15/F16	M15/F16	M15/F16	M16/F25	250	70	M15/F16	M16/F25	MFF/F25	MFF/F25	MFF/F25
300	80	M15/F16	M15/F16	M16/F25	MFF/F25	MFF/F25	300	80	M16/F25	MFF/F25	MJF/F30	MJF/F30	MJF/F30
350	90	M16/F25	MFF/F25	MFF/F25	MFF/F25	MJF/F30	350	90	MFF/F25	MJF/F30	MJF/F30	MLF/F35	MLF/F35
400	100	MJF/F30	MJF/F30	MJF/F30	MJF/F30	MLF/F30	400	100	MJF/F30	MLF/F30	MLF/F35	MLF/F35	—



Selection table, pneumatic actuators type A-DA (air supply 5.5 bar, minimum)

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

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A21	A21	A22	A22	A22	80	25	A22	A22	A22	A22	A22
100	30	A22	A22	A22	A23	A31	100	30	A22	A23	A31	A31	A32
125	35	A31	A31	A31	A31	A32	125	35	A31	A31	A32	A32	A32
150	40	A31	A31	A32	A32	A32	150	40	A32	A32	A41	A41	A41
200	50	A32	A32	A41	A41	A42	200	50	A32	A41	A42	A42	A42
250	70	A41	A41	A42	A42	A42	250	70	A42	A42	A51	A51	A52
300	80	A41	A42	A42	A51	A51	300	80	A42	A51	A52	A52	A52
350	90	A51	A51	A51	A51	A52	350	90	A51	A52	A52	A52	A52 ¹
400	100	A51	A51	A51	A52	A52	400	100	A51	A52	A52		

¹ Air supply = 6 bar

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

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

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A21	A22	A22	A22	A22	80	25	A22	A22	A23	A24	A24
100	30	A22	A22	A23	A23	A31	100	30	A23	A24	A24	A32	A33
125	35	A31	A31	A31	A32	A32	125	35	A31	A32	A32	A33	A33
150	40	A31	A32	A32	A33	A41	150	40	A32	A33	A41	A42	A43
200	50	A32	A33	A41	A42	A42	200	50	A41	A42	A42	A43	A44
250	70	A41	A42	A42	A43	A43	250	70	A42	A43	A51	A52	
300	80	A42	A42	A43	A44	A52	300	80	A43	A44	A52	A52	
350	90	A51	A51	A51	A52	A52	350	90	A52	A52			
400	100	A51	A52	A52	A52		400	100	A52				

Designation at actuators for 4 bar

Info for page 5

The following actuators for low air supply (4 bar) will have an additional code (L). Compared to the actuators for 5.5 bar these actuators have a different return spring.

SC (Spring to open)

A13-SCL.

SO (Spring to open)

A13-SOL, A23-SOL, A24-SOL, A33-SOL, A34-SOL, A43-SOL, A44-SOL.

The code for low air supply actuators have to be stated in the ordering text.



Selection table, pneumatic actuators type A-SC/SO (air supply 5.5 bar, minimum)

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

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A23-X	A23-X	A23-X	A24-X	A24-X	80	25	A24-X	A24-X	A24-X	A24-X	A24-X
100	30	A23-X	A24-X	A24-X	A24-X	A33-X	100	30	A24-X	A33-X	A33-X	A33-X	A34-X
125	35	A33-X	A33-X	A33-X	A33-X	A34-X	125	35	A33-X	A34-X	A34-X	A34-X	A34-X
150	40	A33-X	A33-X	A34-X	A34-X	A34-X	150	40	A34-X	A34-X	A43-X	A43-X	A43-X
200	50	A34-X	A34-X	A43-X	A43-X	A43-X	200	50	A34-X	A43-X	A44-X	A44-X	A44-X
250	70	A43-X	A43-X	A44-X	A44-X	A44-X	250	70	A44-X	A44-X			
300	80	A43-X	A44-X	A44-SC			300	80	A44-X				
350	90	RCG100-SR	RCG100-SR				350	90					
400	100	RCG100-SR					400	100					

X = SC – Spring to close X = SO – Spring to open

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

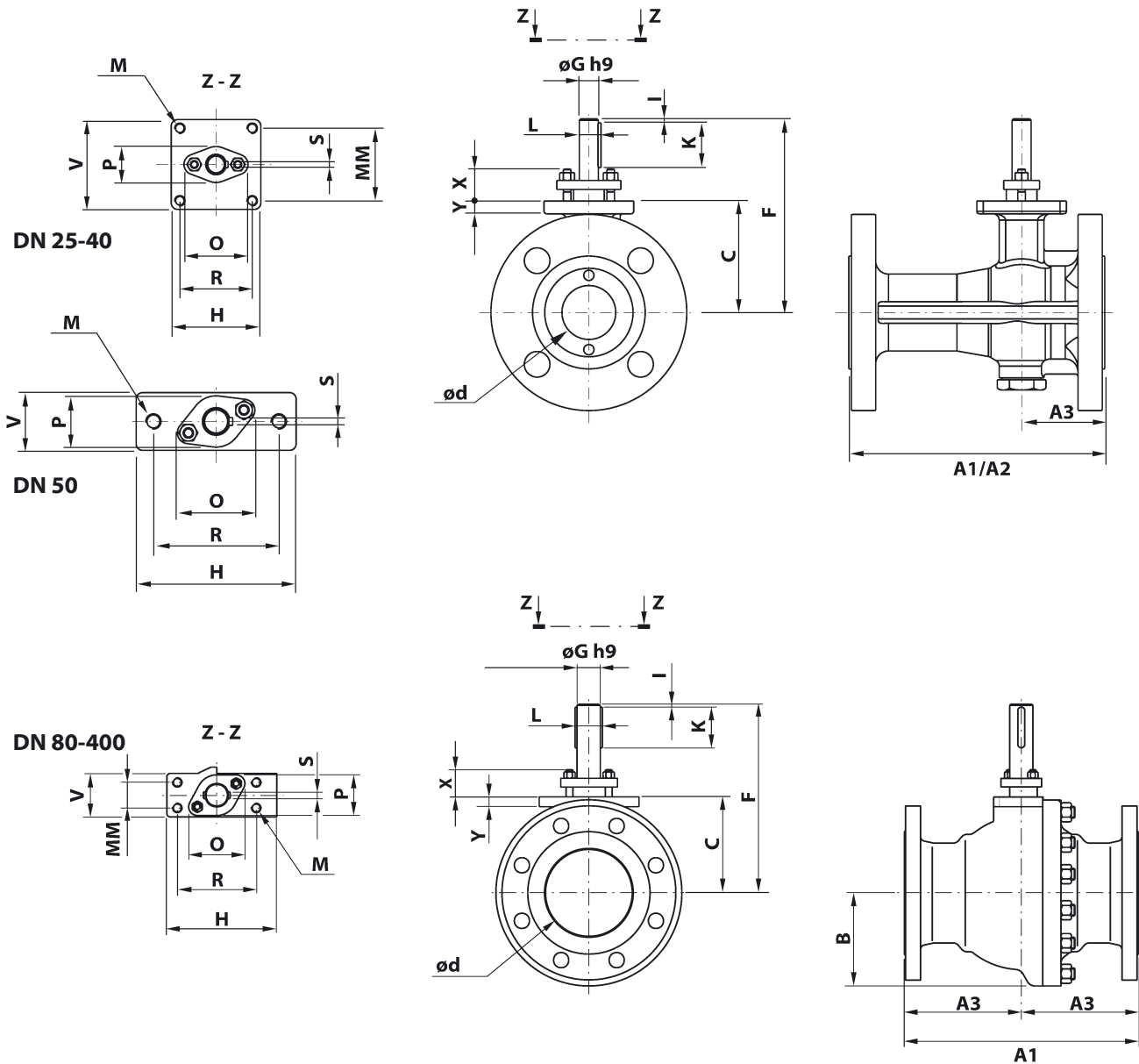
Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	A13-SCL	A13-SCL	A13-SCL	A13-SCL	A13-SCL	25	15	A13-SCL	A13-SCL	A13-SCL	A13-SCL	A23-SC
40	15	A13-SCL	A13-SCL	A13-SCL	A23-SCL	A23-SCL	40	15	A13-SCL	A13-SCL	A23-SC	A23-SC	A23-SC
50	20	A23-SC	A23-SC	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)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A23-SC	A23-SC	A23-SC	A24-SC	A24-SC	80	25	A24-SC	A24-SC	A24-SC	A24-SC	A24-SC
100	30	A23-SC	A24-SC	A24-SC	A24-SC	A33-SC	100	30	A24-SC	A33-SC	A33-SC	A33-SC	A34-SC
125	35	A33-SC	A33-SC	A33-SC	A33-SC	A34-SC	125	35	A33-SC	A33-SC	A34-SC	A34-SC	A34-SC
150	40	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	A34-SC	A43-SC	A43-SC	A43-SC	200	50	A34-SC	A43-SC	A44-SC	A44-SC	
250	70	A43-SC	A43-SC	A44-SC	A44-SC	A44-SC	250	70	A44-SC	A44-SC			
300	80	A43-SC	A44-SC	A44-SC			300	80	A44-SC				
350	90	RCG100-SR	RCG100-SR				350	90					
400	100	RCG100-SR					400	100					

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

Valve DN	Shaft dia. (mm)	Actuator for ball valve with PTFE 53-seats at Δp (bar)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		10	20	30	40	50			10	20	30	40	50
25	15	A13-SOL	A13-SOL	A13-SOL	A13-SOL	A13-SOL	25	15	A13-SOL	A13-SOL	A13-SOL	A13-SOL	A23-SOL
40	15	A13-SOL	A13-SOL	A13-SOL	A23-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	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)					Valve DN	Shaft dia. (mm)	Actuator for ball valve with HiCo-seats at Δp (bar)				
		5	10	15	20	25			5	10	15	20	25
80	25	A23-SOL	A23-SOL	A23-SOL	A24-SOL	A24-SOL	80	25	A24-SOL	A24-SOL	A24-SOL	A24-SOL	A24-SOL
100	30	A23-SOL	A24-SOL	A24-SOL	A24-SOL	A33-SOL	100	30	A24-SOL	A33-SOL	A33-SOL	A33-SOL	A34-SOL
125	35	A33-SOL	A33-SOL	A33-SOL	A33-SOL	A34-SOL	125	35	A33-SOL	A33-SOL	A34-SOL	A34-SOL	A34-SOL
150	40	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	A34-SOL	A43-SOL	A43-SOL	A44-SOL	200	50	A34-SOL	A43-SOL	A44-SOL	A44-SOL	
250	70	A43-SOL	A43-SOL	A44-SOL	A44-SOL	A44-SOL	250	70	A44-SOL	A44-SOL			
300	80	A43-SOL	A44-SOL	A44-SC			300	80	A44-SOL				
350	90	RCG100-SR	RCG100-SR				350	90					
400	100	RCG100-SR					400	100					

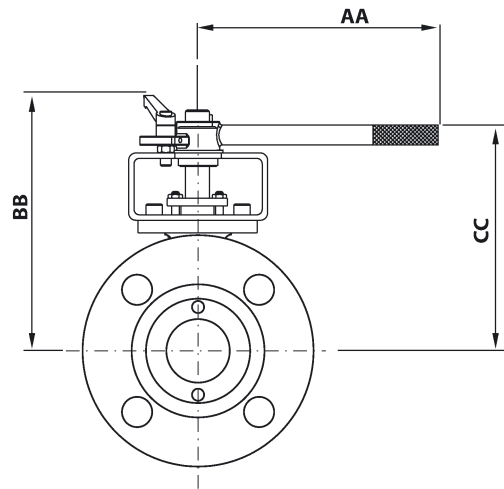
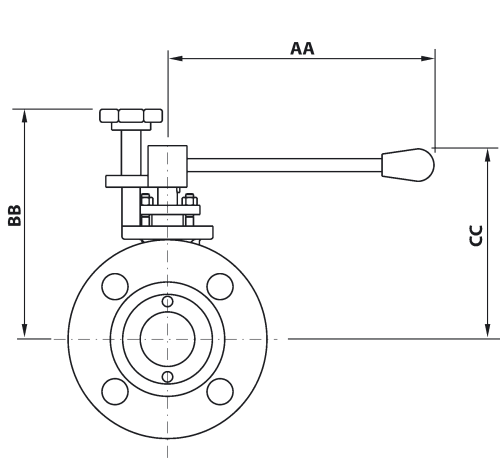


Face to face dimension

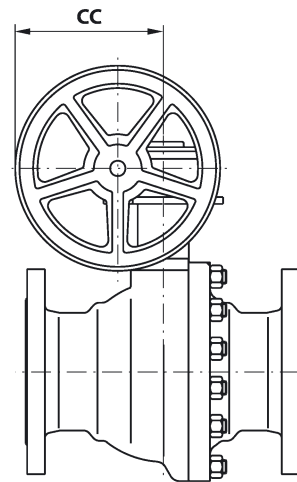
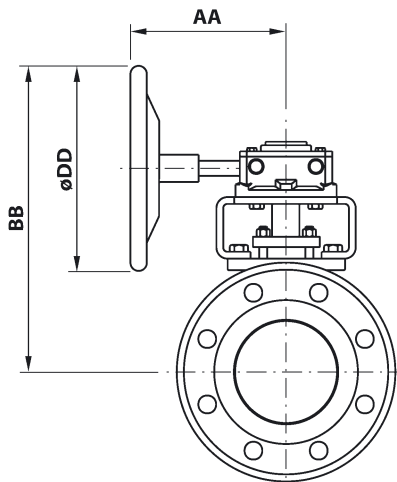
A₁ EN 558-1 Series 1 / Face to face dimension for PN-rated valves (PN 25, PN 40)

A₂ EN 558-2 Series 4 / Face to face dimension for class-rated valves (PN 20, PN 50, ANSI 150, ANSI

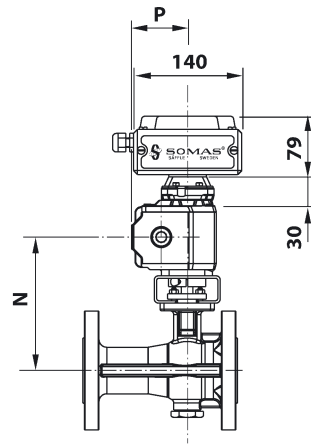
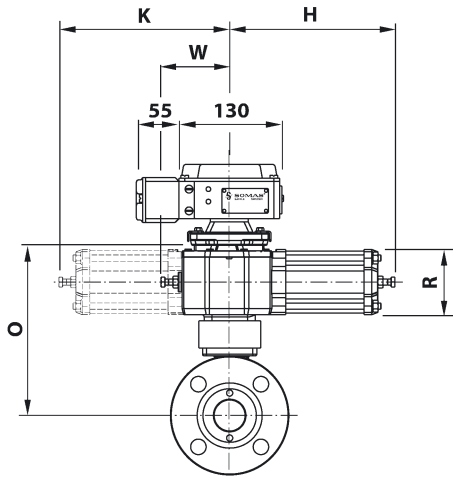
Ball valve type SKV																						
DN	A ₁	A ₂	A ₃	B	C	ød	F	øG	H	I	K	L	M	MM	O	P	R	S	V	X	Y	Weight
25	165	160	60	—	80	25	144	15	70	3	35	17	M8	56.6	50	28	56.6	5	70	25	10	5.5
40	190	200	65	—	87	40	150	15	70	3	35	17	M8	56.6	50	28	56.6	5	70	25	10	9.5
50	216	230	75	—	101	50	216	20	125	5	45	22.5	M12	—	61	40	98	6	45	30	10	13.5
80	283	—	141,5	100	103	80	185	25	125	3	35	31	M10	24	63	45	98	8	48	30	14	26
100	305	—	152,5	121	123	100	231	30	150	5	50	36	M12	24	69	50	123	8	54	40	15	40
125	381	—	190,5	143	144	125	273	35	150	5	60	41	M12	32	75	55	123	10	60	40	15	60
150	403	—	201,5	160	166	150	325	40	172	5	70	46	M16	44	77	70	136	12	75	50	18	83
200	502	—	251	199	205	200	387	50	205	6	80	57	M20	45	107	82	165	14	90	50	20	150
250	568	—	284	243	247	250	470	70	300	8	110	80	M24	60	140	112	250	20	110	60	24	240
300	648	—	324	282	288	300	538	80	354	8	130	90	M24	76	162	120	304	22	124	75	24	355
350	762	—	381	328	333	350	601	90	415	8	150	100	M30	80	180	138	355	25	140	70	32	550
400	838	—	419	370	376	400	674	100	415	8	180	112	M30	80	195	150	355	28	140	72	32	795



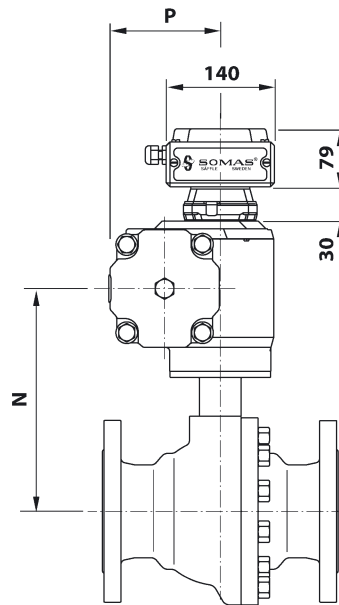
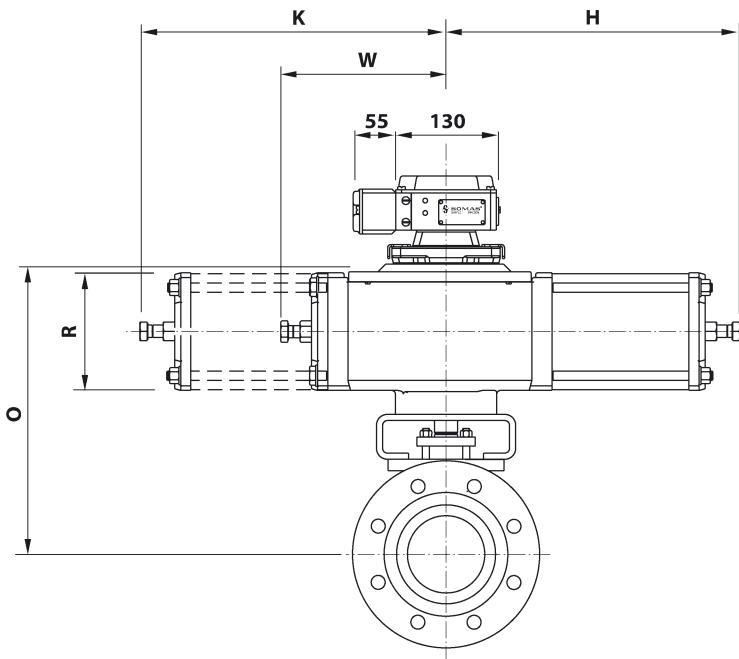
Ball valve type SKV with hand lever					
DN	Type	AA	BB	CC	Weight
25	HK125	195	174	144	6
40	HK125	195	181	151	10.5
50	HSR20	355	226	196	16



Ball valve type SKV with gear unit																				
DN	Type	AA	BB	CC	øDD	Weight	DN	Type	AA	BB	CC	øDD	Weight	DN	Type	AA	BB	CC	øDD	Weight
80	M10/F10	190	315	185	255	34	200	M14/F16	250	535	270	355	172	350	M16/F25	395	815	465	615	603
100	M10/F10	190	345	185	255	48	200	M15/F16	370	665	355	615	188	350	MFF/F25	500	850	370	615	614
100	M12/F12	228	380	220	305	52	200	M16/F16	395	665	465	615	203	350	MJF/F30	535	850	330	615	653
125	M12/F12	228	410	220	305	72	250	M15/F16	370	720	355	615	278	350	MLF/F35	620	825	550	615	742
125	M14/F14	250	445	270	355	82	250	M16/F25	395	720	465	615	293	400	MJF/F30	500	895	370	615	859
150	M12/F12	228	455	225	255	95	250	MFF/F25	500	680	295	460	304	400	MLF/F35	620	895	550	615	995
150	M14/F14	250	490	270	355	105	300	M15/F16	370	740	355	615	393							
150	M15/F14	370	540	355	460	121	300	M16/F25	395	740	465	615	408							
							300	MFF/F25	500	725	295	615	419							
							300	MJF/F30	535	725	330	615	466							



DN 25-50



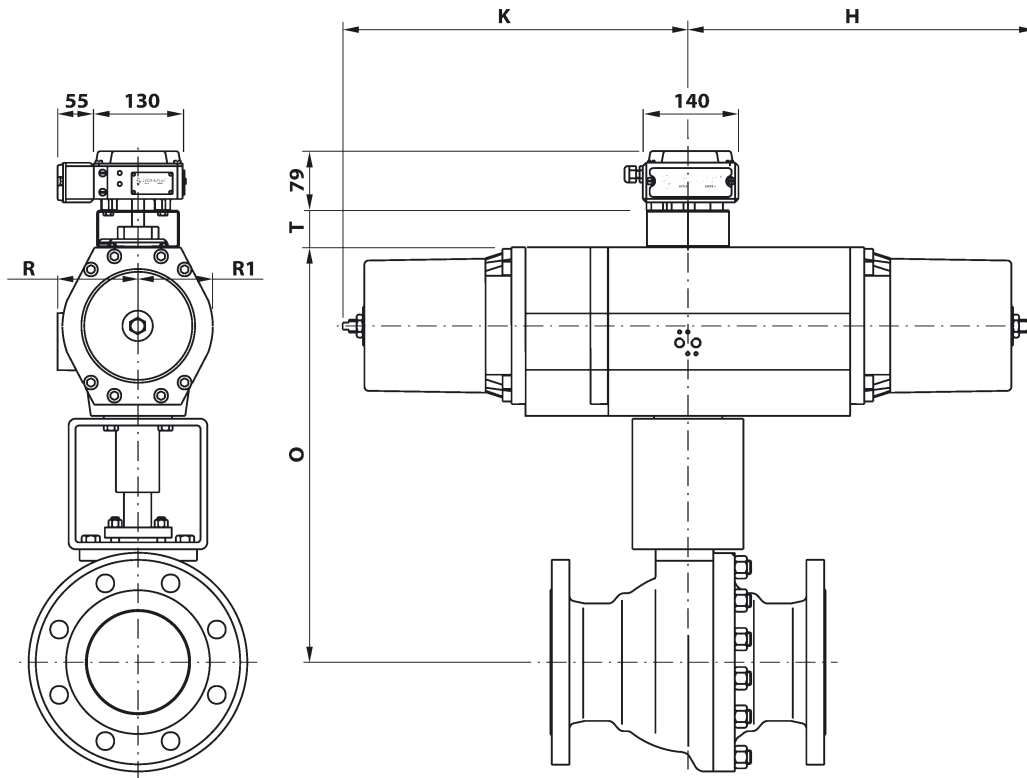
DN 80-400



Ball valve type SKV with actuator type A-DA										Actuator type A-SC/SO									
DN	Type	H	K	N	O	P	R	W	Weight	DN	Type	H	K	N	O	P	R	W	Weight
25	A11	215	—	175	220	73	84	90	10	25	A13-X	325	—	175	220	83	106	90	14
25	A13	250	—	175	220	83	106	90	12	25	A23-X	415	—	205	265	117	152	140	23
40	A11	215	—	180	230	73	84	90	15	40	A13-X	325	—	180	230	83	106	90	18
40	A13	250	—	180	230	83	106	90	17	40	A23-X	415	—	210	275	117	152	140	27
50	A11	215	—	230	280	73	84	90	18	50	A23-X	415	—	250	315	117	152	140	31
50	A13	250	—	230	280	83	106	90	20	80	A23-X	415	—	225	290	117	152	140	43
50	A21	255	—	250	315	94	106	140	23	80	A24-X	415	420	225	290	117	152	—	53
50	A22	255	260	250	315	94	106	—	25	100	A23-X	415	—	245	310	117	152	140	57
80	A21	255	—	225	290	94	106	140	36	100	A24-X	415	420	245	310	117	152	—	67
80	A22	255	260	225	290	94	106	—	37	100	A33-X	660	—	295	380	183	228	215	103
80	A23	305	—	225	290	117	106	140	43	100	A34-X	665	680	295	380	183	228	—	131
80	A24	305	310	225	290	117	152	—	44	125	A33-X	660	—	325	410	183	228	215	123
100	A22	255	260	245	310	94	106	—	51	125	A34-X	665	680	325	410	183	228	—	155
100	A23	305	—	245	310	117	152	140	56	150	A33-X	660	—	365	450	183	228	215	150
100	A24	305	310	245	310	117	152	—	57	150	A34-X	665	680	365	450	183	228	—	175
100	A31	380	—	295	380	144	152	215	65	150	A43-X	920	—	410	535	279	354	315	250
100	A32	380	395	295	380	144	152	—	71	200	A34-X	665	680	415	500	183	228	—	245
100	A33	470	—	295	380	183	228	215	78	200	A43-X	920	—	460	585	279	354	315	315
125	A31	380	—	325	410	144	152	215	85	200	A44-X	925	935	460	585	279	354	—	370
125	A32	380	395	325	410	144	152	—	91	250	A43-X	920	—	510	635	279	354	315	405
125	A33	470	—	325	410	183	228	215	98	250	A44-X	925	935	510	635	279	354	—	460
150	A31	380	—	365	450	144	152	215	108	300	A43-X	920	—	560	690	279	354	315	520
150	A32	380	395	365	450	144	152	—	114	300	A44-X	925	935	560	690	279	354	—	575
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.

X = SC – Spring to close
 X = SO – Spring to open



Ball valve type SKV with actuator type SR								
DN	Type	H	K	O	R	R1	T	Weight
350	RCG100-SR	850	850	1105	190	190	84	1080
400	RCG100-SR	850	850	1145	190	190	84	1325

For units with the positioner type SP405, add 2 kg.

For units with the positioner type SPE405, add 3 kg.



Flange standard

SOMAS ball valves type SKV in this data sheet are equipped with flanges. The valve sizes DN 25-50 can be drilled for DIN – PN 40, ANSI 150 / ISO PN 25 and ANSI 300 / ISO PN 50, while DN 80-400 can be drilled for PN 10, PN 16 and PN 25 and ANSI 150 / ISO PN 20. Drilling according to BS is also possible.

When ordering, please always state the pressure rating of the counter flanges. See the valve specification system on page 12, code 11.

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

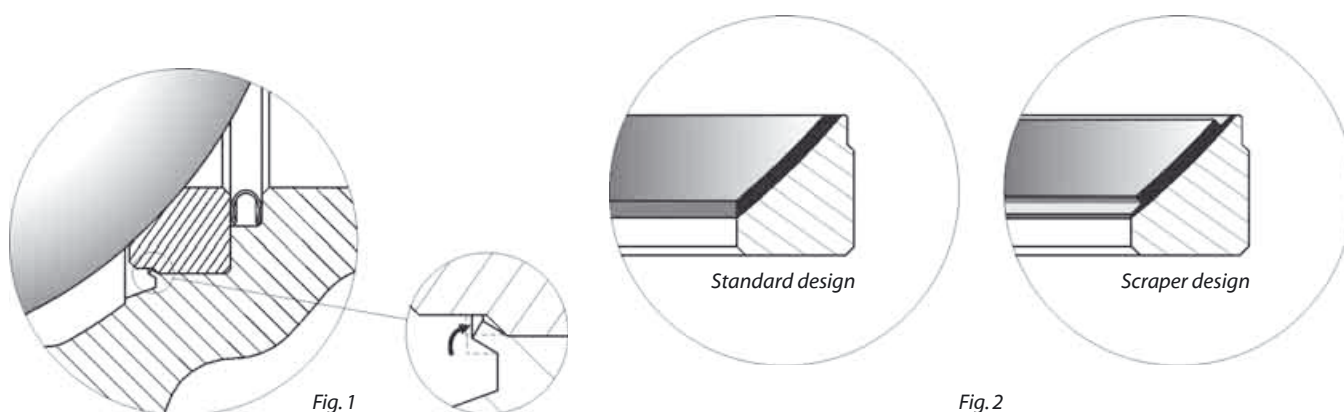
The valves can be fitted with SOMAS manual, on/off or control actuators in accordance with the selection table. The valves will then be delivered as tested units ready for installation.

Check sections 4 and 5 of the SOMAS catalogue, where positioners, limit switches and solenoid valves are also presented.

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 section 6 of the Somas catalogue.



Ball valve, type SKV DN 25 with hand lever.



Ball valve, type SKV DN 100 with gear unit.



For ordering

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

Valve specification system

SKV - L 5 - A B B - N 1 1 - DN... - PN...

- | | | |
|--|--|--|
| 1 Valve type
SKV = Ball valve | 5 Material – ball
B = 1.4408, hard chromed
C = 1.4408, HiCo-coated
Y = 1.4470, hard chromed
1.4462, hard chromed (DN 25-50) | 7 Material – shaft
N = 1.4460 nickel plated |
| 2 Valve body design
L = Flanged design | 6 Material – seat
B = PTFE 53 ¹
J = HiCo (High Cobalt alloy), locked seat
K = HiCo (High Cobalt alloy), scraper seat
M = HiCo (High Cobalt alloy), locked seat + scraper seat
T = HiCo (High Cobalt alloy) | 8 Bearings – valve body/shaft
1 = Without bearing |
| 3 Nominal pressure
6 = PN50 (DN25-50)
5 = PN25 | | 9 Stuffing box
1 = Graphite
2 = PTFE |
| 4 Material – valve body
A = CF8M
H = 1.4470 | | 10 Valve size, DN |
| | | 11 Drilling, counter flanges |

¹ 50% PTFE + 50% 1.4435 powder (percentage by weight)

SOMAS reserves the right to make improvements without prior notice.



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