

TO DOWNLOAD THE SHEETS OF OUR PRODUCTS, REFER TO OUR WEBSITE IN THE CATALOGUE SECTION

SBS SERIES ELECTRICAL VALVES

FAMILY 04 CONTROL VALVES

The SBS electrical control valves are 2- or 3-way modulating ball valves, with an axial electrical actuator.

They are equipped with a shutter with linear or equipercentage typical curve and a soft or metal seal.

They are flanged in accordance with the standards EN 1092-2 – PN 16, EN 1092-1– PN 40 and ANSI B16.5 class 150.



TECHNICAL DATA

Valve type	2- or 3-way globe valve, unidirectional (N.C. angle way in the 3-way STD version).			
Material	EN 1561 GJL-250	EN 1563 GJS-500-7	ASTM A216 WCB	CF8M
DN	15 # 80	15 # 150	15 # 80	
Max. allowed P	16 BAR		40 BAR (30 BAR with bellows)	
Connections	Flanged PN 16 according to EN 1092-2		Flanged PN 40 according to EN 1092-1	
Seal	PEEK – metal – stellited			
Seal class	Level A for PEEK seal Level B for metal and stellited seal (the stellited seal is recommended for Δp > 10 bar) In accordance with the standard UNI EN 12266-1			
Shutter features	equipercentage, linear			
Shutter stroke	15 mm (20 mm upon request) DN 15#80 – 30 mm DN 100#150			
Max temperature	+200°C PEEK seal (standard version)			
		+250°C PEEK seal with bellows		
		+300°C metal and/or stellited seal with safety bellows		
Min. temperature	-10°C (in liquid phase standard version)			
		-28 °C (with bellows)	-40 °C (with bellows)	
Electrical connections	Electrical connections with screw (max 2.5 mm²)			
Power supply	24 V AC/DC (230 V AC upon request)			
Control signal	0#10 V / 4#20 mA / 2 or 3 POINTS			
Degree of protection	IP66			
Activation time	15 mm stroke: 28 s - 56 s - 84 s / 20 mm stroke: 40 s - 80 s - 120 s			
Versions	normally closed, normally open, bellows for high/low temperatures, emergency lever			

MATERIALS

Body material		EN 1561 GJL-250	EN 1563 GJS-500-7	ASTM A216 WCB	CF8M
Middle section		ASTM A216 WCB + Fe 430 B15#80 EN 1563 GJS-500-7 + Fe 430 B DN 100#150			CF8M + S30400
Shutter	T.PK.	CF8 + S30400 + PEEK			CF8M + S31600 + PEEK
	T.M.	CF8 + S30400			CF8M + S31600
Packing gland		PTFE+GRAPHITE-LOADED PTFE			
Body gaskets		NOVATEC or GRAPHITE+KEVLAR			
Electric motor		PC and steel alloys			
Connecting screws		Galvanized steel			S30400

Δp valves SBS DN 15÷150 2-way electrical control

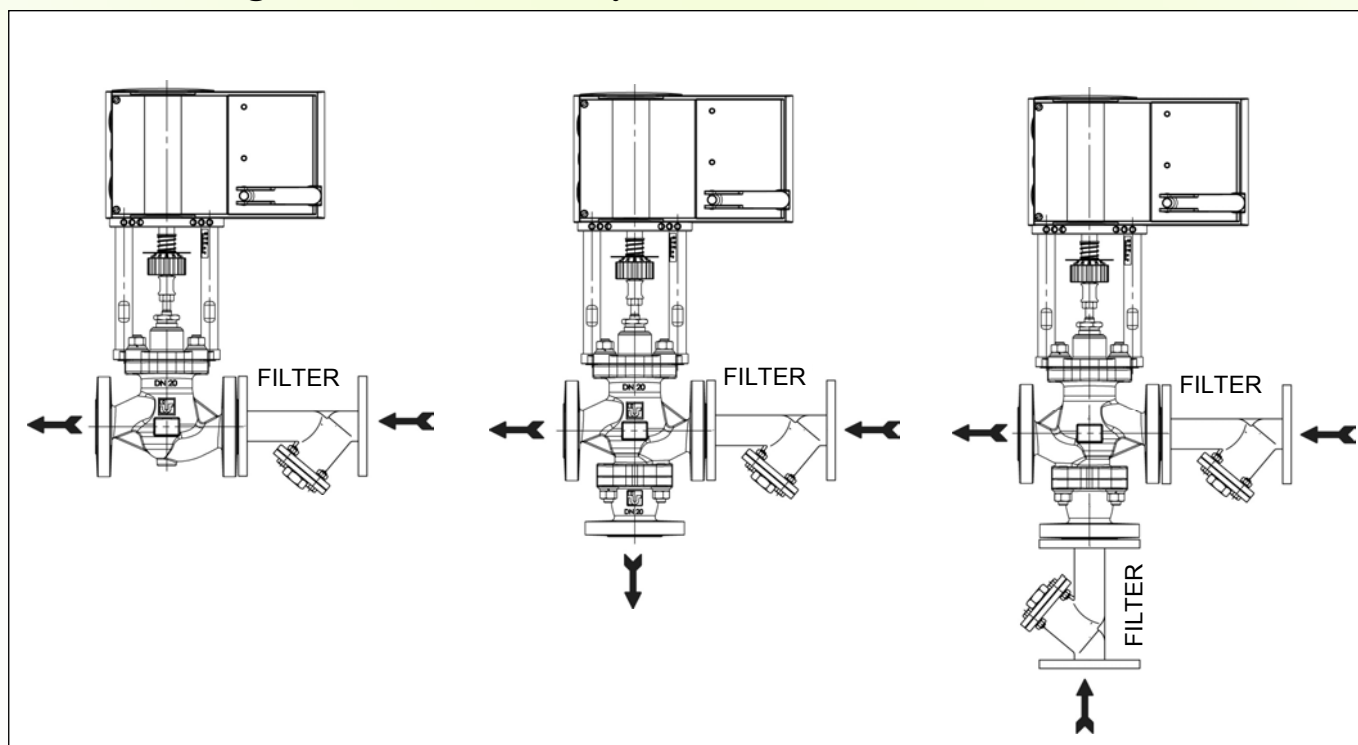
DN	Φ ff. ⁽¹⁾ [mm]	Stroke ⁽²⁾ [mm]	Kvs		CV		Motor type	Δp Valve
			Linear shutter	Equiperc. shutter	Linear shutter	Equiperc. shutter		
15	15	15	4.3	4.5	5	5.2	SUT 2000	40
	20	15	5	5	5.8	5.8	SUT 2000	40
20	20	15	8	7.5	9.3	8.7	SUT 2000	40
25	26	15	11.8	11.3	13.7	13.1	SUT 2000	28
32	31	15	20	15.2	23.3	17.7	SUT 2000	20
40	38	15	26	22.3	30.2	25.9	SUT 2000	14
50	48	15	38.4	34.6	44.7	40.2	SUT 2000	8
65	63	15	74.1	62.7	86.3	73.0	SUT 2000	5
80	78	15	89.8	76.0	104.5	88.5	SUT 2000	3
100	92	30	/	115	/	134	SUT 2000	2
125	115	30	/	190	/	222	SUT 2000	1,3
150	125	30	/	250	/	292	SUT 2000	0,8

⁽¹⁾ For valves with reduced seat please contact our technical office

⁽²⁾ Upon request we can supply 20 mm stroke valves

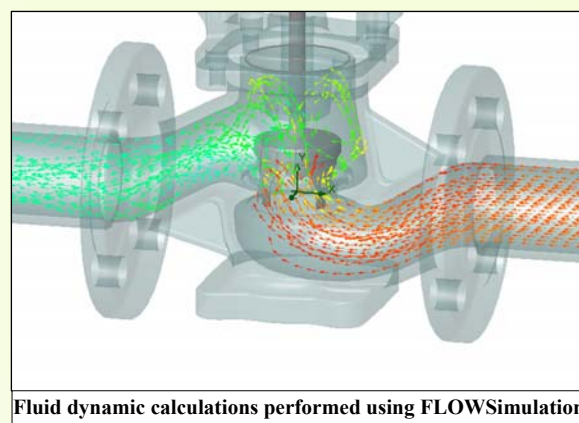
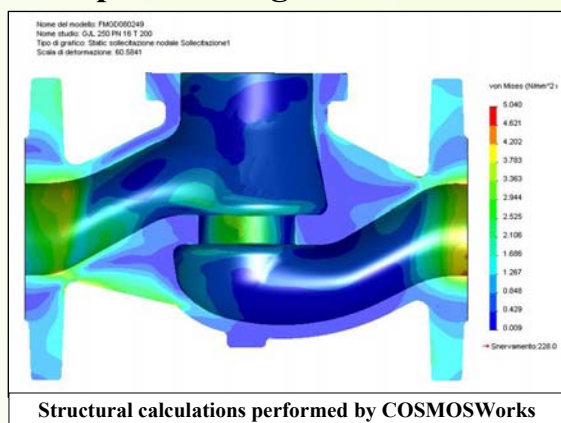
The Kv has been calculated using the FLOWSimulation fluid dynamics program in accordance with the UNI EN 1267:2001 standard and refers to a 2-way valve

Installation diagrams of the electrically controlled SBS valves

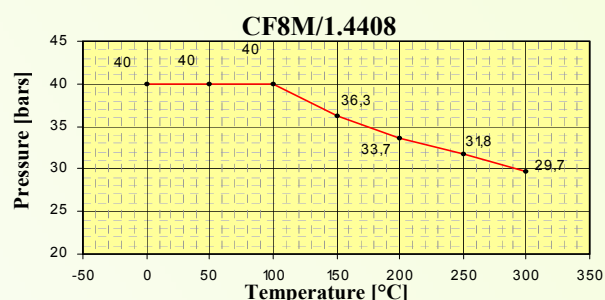
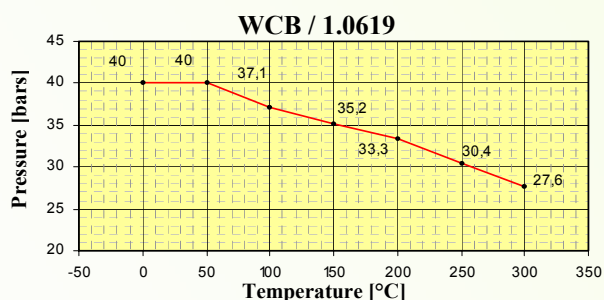
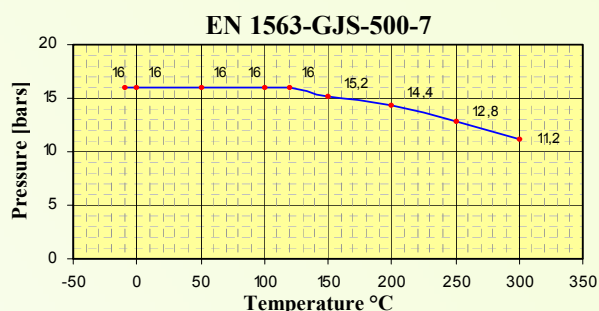
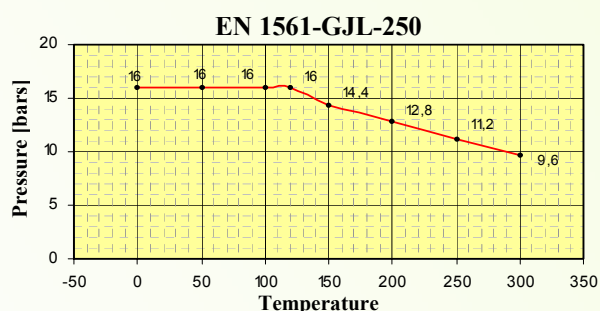


It is important that you install a filter on the valve inlets to prevent any slugs or impurities from damaging the valve seat or shutter, prejudicing proper operation.

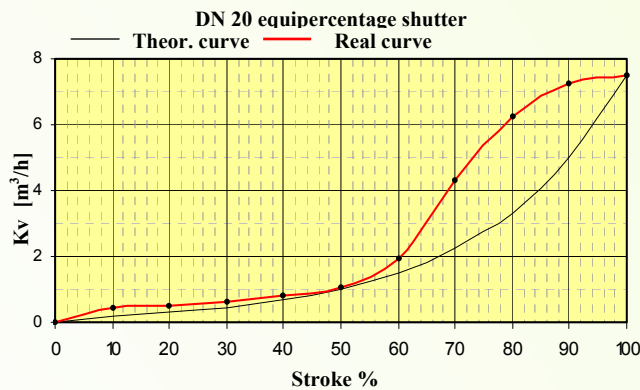
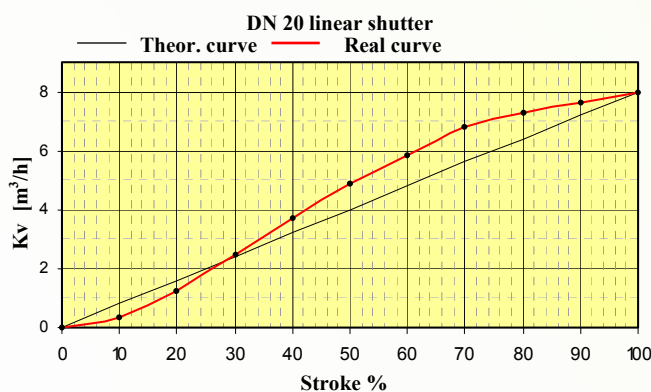
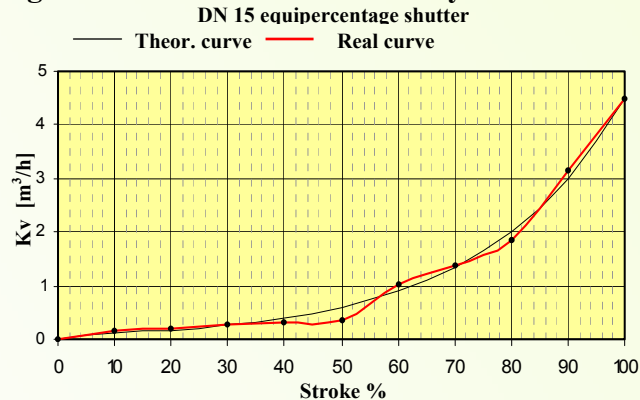
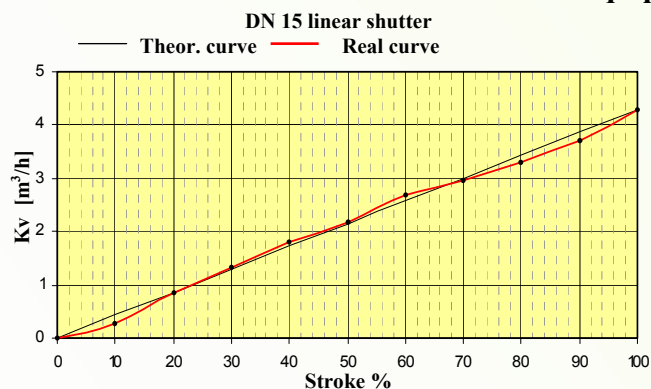
Examples of design calculations

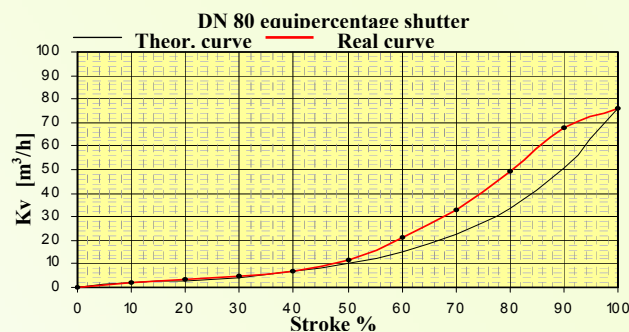
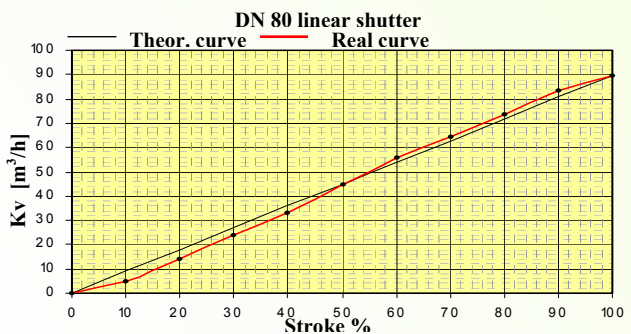
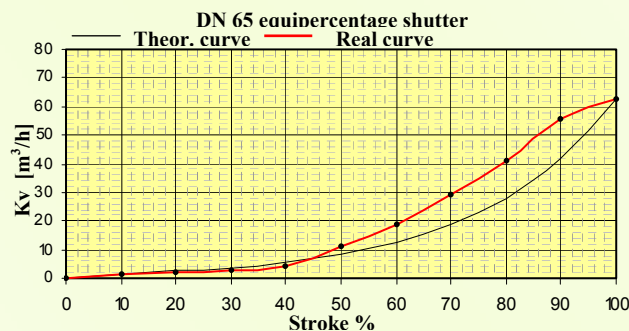
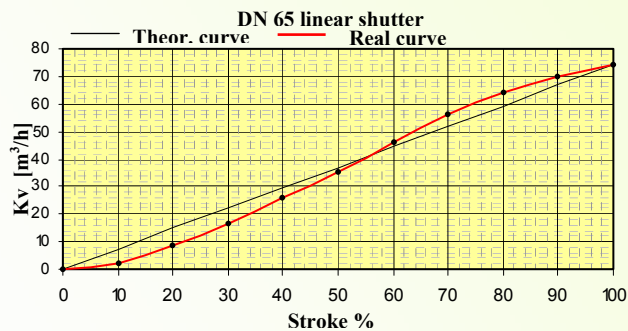
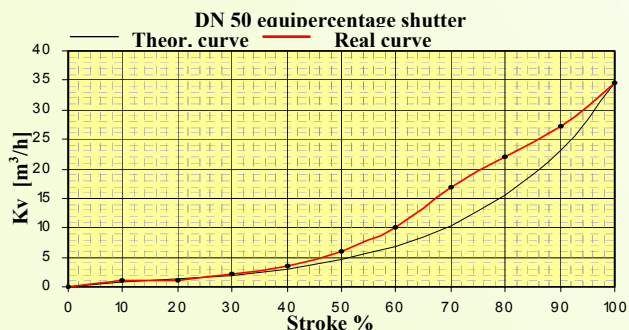
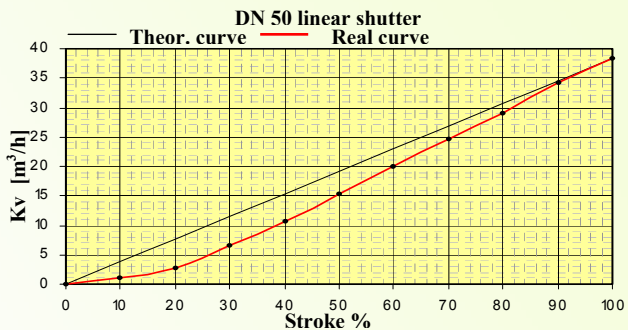
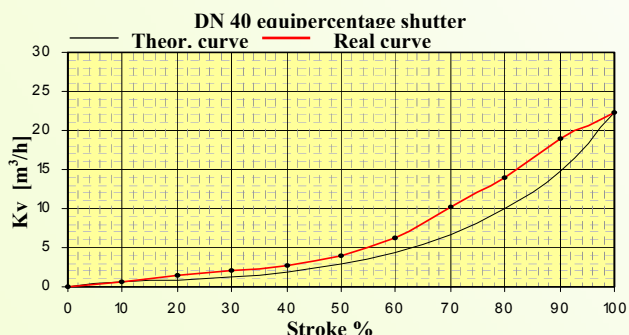
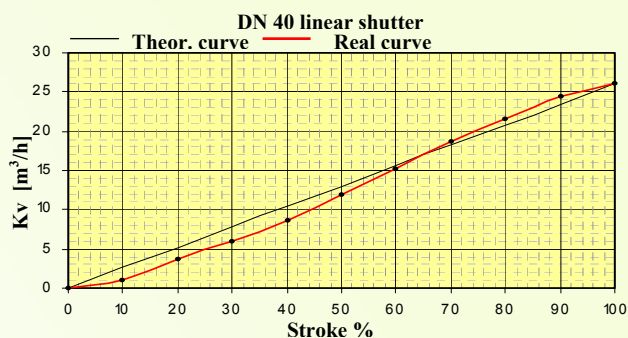
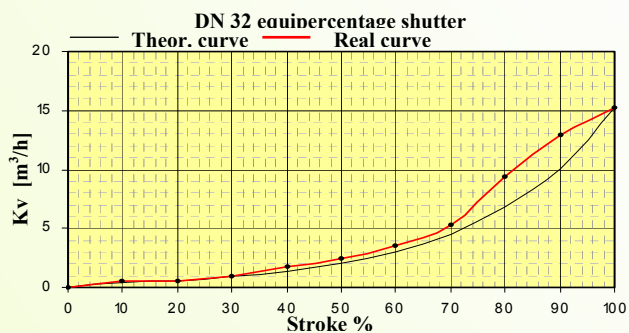
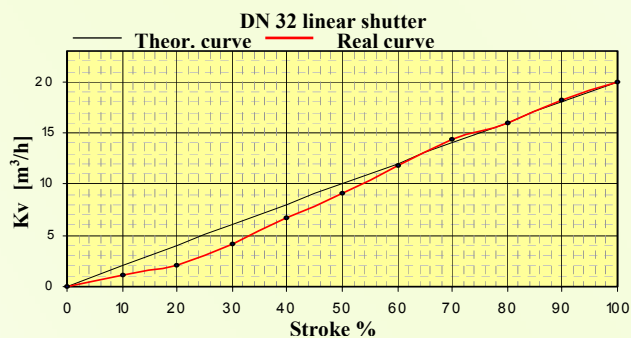
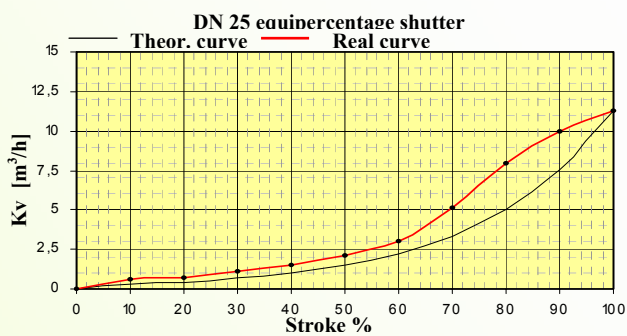
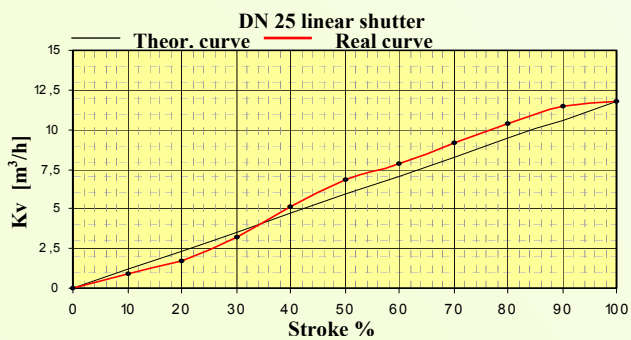


Pressure/temperature ratios for SBS cast iron bodies

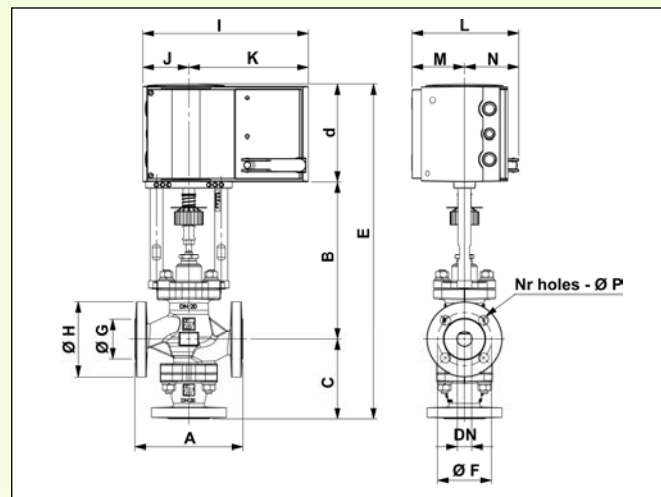
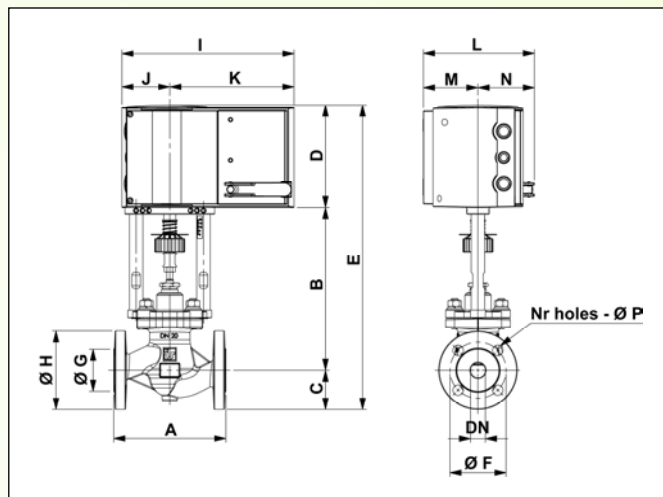


Curves and flow rates of the Linear and Equipercantage shutters of the SBS for 2-way valves





Dimensions



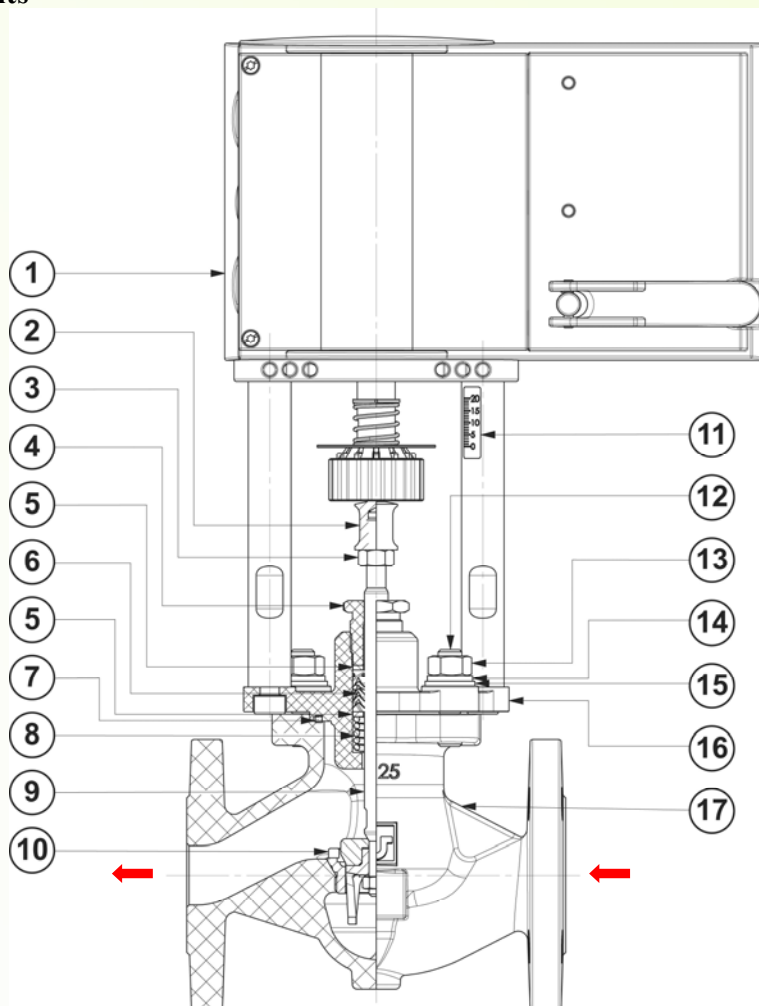
DN	A	B	C (2-way)	C (3-way)	D	E (2-way)	E (3-way)	Ø F	Ø G	Ø H	I	J	K	L	M	N	Ø P		No. of holes	
																	PN 16	PN 40	PN 16	PN 40
15	130	219	47,5	112	137	403,5	468	65	45	95	230	64	166	148,5	73	75,5	14		4	
20	150	219	52,5	112	137	408,5	468	75	58	105	230	64	166	148,5	73	75,5	14		4	
25	160	219	57,5	125	137	413,5	481	85	65	115	230	64	166	148,5	73	75,5	14		4	
32	180	240	70	145	137	447	522	100	76	140	230	64	166	148,5	73	75,5	19	18	4	
40	200	237	75	145	137	449	519	110	84	150	230	64	166	148,5	73	75,5	19	18	4	
50	230	237	82,5	161	137	456,5	535	125	99	165	230	64	166	148,5	73	75,5	19	18	4	
65	290	289	120	237	137	546	663	145	118	185	230	64	166	148,5	73	75,5	19	18	4	8
80	310	288	121	239	137	546	664	160	132	200	230	64	166	148,5	73	75,5	19	18	8	
100	350	360	192,5	265	137	689,5	762	180	158	220	230	64	166	148,5	73	75,5	18		8	
125	400	383	215,5	318	137	735,5	838	210	188	250	230	64	166	148,5	73	75,5	18		8	
150	480	408	245	382	137	790	927	240	212	285	230	64	166	148,5	73	75,5	22		8	

Dimensions are in mm

2-way SBS electrical valve components

No.	DESCRIPTION
1	Axial electric motor
2	Valve/Motor joint
3	Hexagon nut
4	Packing gland screw
5	Distance ring washer
6	Packing gland
7	Body gasket
8	Packing gland spring
9	Shutter
10	Seat
11	Stroke graduated label
12	Stud-bolt
13	Hexagon nut
14	Spring washer
15	Flat washer
16	Intermediate body with closing flange
17	Valve body

→ Flow direction

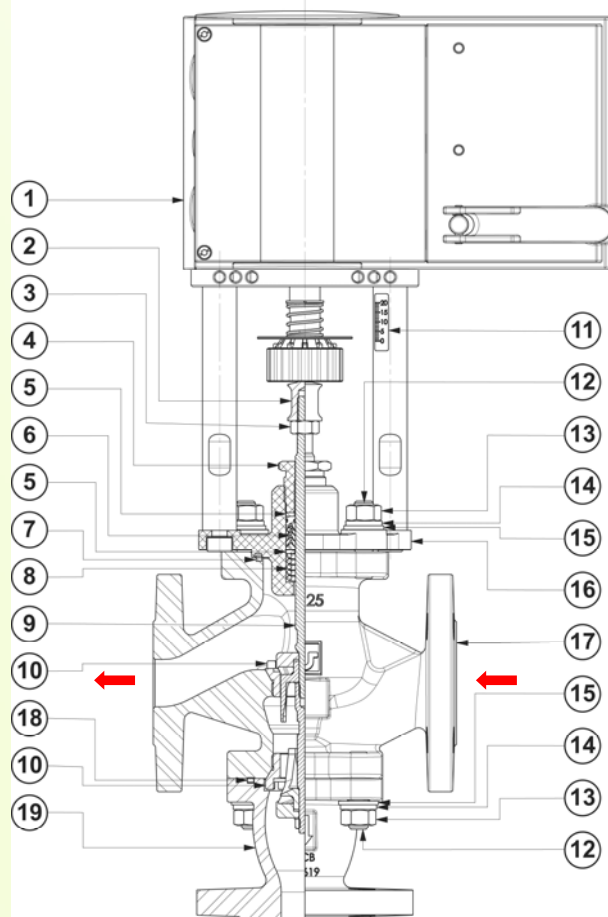


3-way deviation/mixer electrical valve components

No.	DESCRIPTION
1	Axial electric motor
2	Valve/Motor joint
3	Hexagon nut
4	Packing gland screw
5	Distance ring washer
6	Packing gland
7	Body gasket
8	Packing gland spring
9	Shutter
10	Seat
11	Stroke graduated label
12	Stud-bolt
13	Hexagon nut
14	Spring washer
15	Flat washer
16	Intermediate body with closing flange
17	Valve body
18	Bottom base gasket
19	Bottom base

→ Flow direction

Deviation



Mixer

