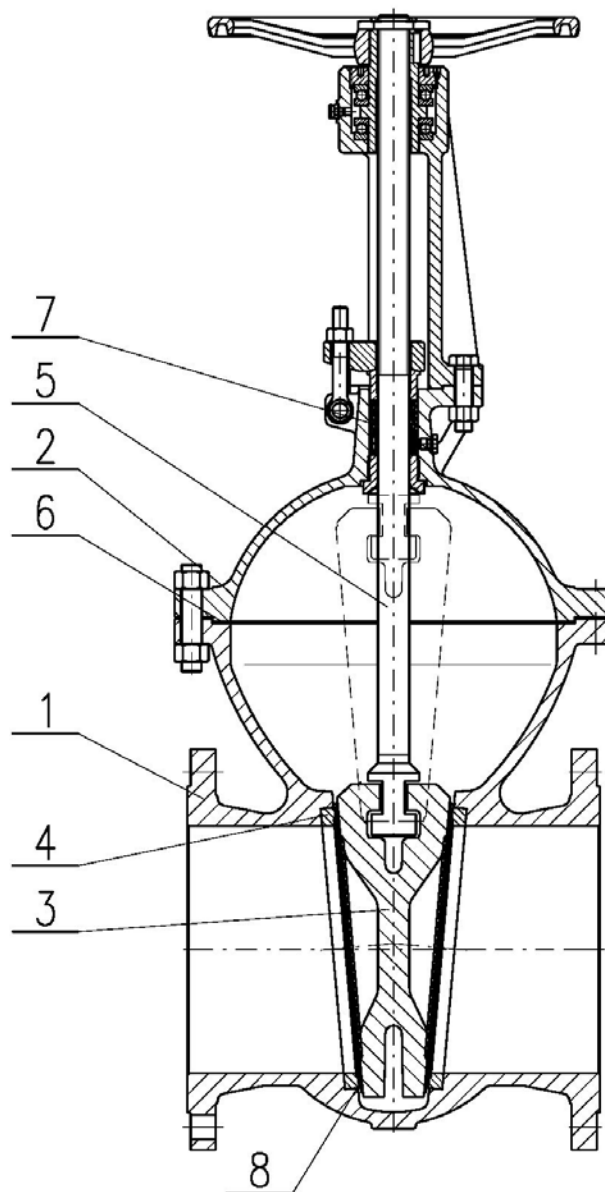


GATE VALVES

S 38

APPLICATION

The gate valves of this design are controlled valves used as the shut-off units in the piping system. They can be used for water, saturated and superheated steam, gases, non-aggressive liquids, crude oil and crude oil products at temperatures $-50\text{ }^{\circ}\text{C}$ to $+550\text{ }^{\circ}\text{C}$ (depending on material used). Range of inside diameters is DN 40 to DN 500 for operating pressures PN 16 to PN 100 and for operating parameters according to ČSN 13 0010 (pressure and temperature) or DIN 2401 Section 2.



GATE VALVES

S 38

TECHNICAL DESCRIPTION

The gate valve is equipped with a yoke and the rising spindle. Connection into the pipeline is flanged or welded-on. The body is made of the casting and the flow is not contracted. The wedge is compact, flexible and guided in the body guide ribs. Sealing seats are screwed into the body or directly welded-on. The seat and wedge sealing surfaces are welded-on. The body is connected to the lid via the flanged joint with asbestos-free seal inserted. The backward spindle sealing is located in the lid beneath the packing space, which is filled up with graphite rings. The spindle nut is imbedded in the yoke lid, in the yoke and the axial ball bearings for bigger inside diameters (from DBN 250). To compensate pressures during control, pipeline heating, etc., the slide valve can be provided with the by-pass.

Building lengths correspond to standardised lengths according to ČSN EN 558-1, ISO 5752. Flange dimensions correspond to ČSN 13 1160, DIN 2501 or the customer's demands.

The gate valves can be mounted in horizontal, inclined or vertical position. As for gate valves controlled by electric actuator, the position can be restricted if required by the actuator manufacturer.

The valve are supplied together with the documentation according to ČSN 13 3060 and EN 10 204.

CONTROL

The gate valve is controlled via the hand-wheel or the electric actuator. The hand-wheel rotates to the right when closing.

The electric actuator is disconnected from torque in final "closed" position and from the set-up position in the "open" position.

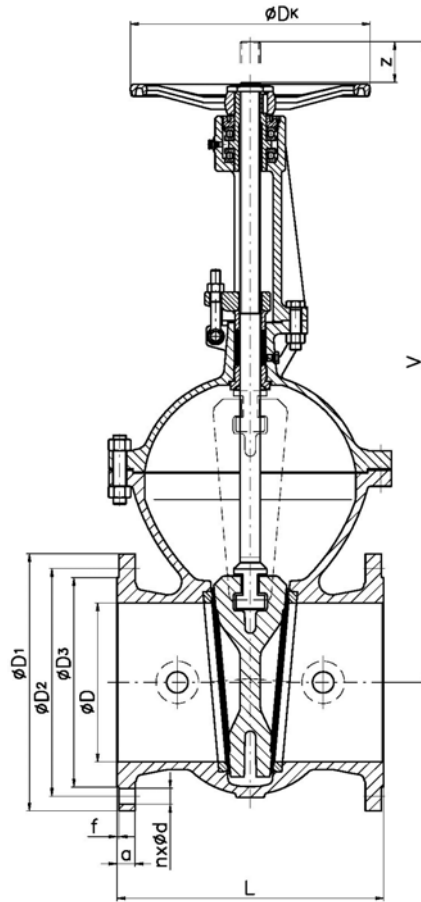
TABLE OF MATERIALS

Pos.		S 38 1X1 5X		S 38 1X1 2X		S 38 1X1 2X	
		from -20°C up to 400°C		from -20°C up to 550°C		from -50°C up to 400°C	
		ČSN	EN	ČSN	EN	ČSN	EN
1	Body	42 2643.1	GP240GH	42 2744.5	G17CrMo5-5	42 2714.9	G20Mn5
2	Cover	42 2643.1	GP240GH	42 2744.5	G17CrMo5-5	42 2714.9	G20Mn5
3	Wedge	42 2643.1	GP240GH	42 2744.5	G17CrMo5-5	42 2714.9	G20Mn5
4	Seat	11 523.1	P355QH	15 128		11 503.1	P355NH
5	Stem	17 021.6	X12Cr13	17 021.6	X12Cr13	17 021.6	X12Cr13
6	Gasket	Grafit		Grafit		Grafit	
7	Packing	Grafit		Grafit		Grafit	
8	Overlay	13Cr		Stellit		18-8CrNi	

GATE VALVES

S 38

FLANGED DESIGN



PN 16

S 38 111 516
S 38 111 216

DN	ØD	ØD ₁	ØD ₂	ØD ₃	a	f	n	Ød	L	V	Z	ØD _K	kg
40	40	150	110	88	18	3	4	18	240	350	60	200	19
50	50	165	125	102	20	3	4	18	250	360	72	200	27
65	65	185	145	122	18	3	4	18	270	440	85	250	36
80	80	200	160	138	20	3	8	18	280	465	92	250	40
100	100	220	180	158	20	3	8	18	300	520	117	250	55
125	125	250	210	188	22	3	8	18	325	635	150	300	89
150	150	285	240	212	22	3	8	22	350	705	170	400	110
200	200	340	295	268	24	3	12	22	400	840	225	400	192
250	250	405	355	320	26	3	12	26	450	965	280	450	265
300	300	460	410	378	28	4	12	26	500	1120	330	500	376
350	350	520	470	438	30	4	16	26	550	1210	365	500	511
400	400	580	525	490	32	4	16	30	600	1390	420	560	657
500	500	715	650	610	36	4	20	33	700	1680	520	630	1090

GATE VALVES

S 38

PN 25

S 38 111 525

S 38 111 225

DN	ØD	ØD ₁	ØD ₂	ØD ₃	a	f	n	Ød	L	V	Z	ØD _K	kg
40	40	150	110	88	18	3	4	18	240	350	60	200	19
50	50	165	125	102	20	3	4	18	250	360	72	200	27
65	65	185	145	122	22	3	4	18	270	440	85	250	36
80	80	200	160	138	24	3	8	18	280	465	92	250	40
100	100	235	190	162	24	3	8	22	300	520	117	250	55
125	125	270	220	188	26	3	8	26	325	635	150	300	89
150	150	300	250	218	28	3	8	26	350	705	170	400	122
200	200	360	310	278	30	3	12	26	400	840	225	400	202
250	250	425	370	335	32	3	12	30	450	965	280	450	278
300	300	485	430	395	34	4	16	30	500	1122	330	500	394
350	350	555	490	450	38	4	16	33	550	1212	365	500	541
400	400	620	550	505	40	4	16	36	600	1387	420	560	695
500	500	730	660	615	44	4	20	36	700	1680	520	630	1127

PN 40

S 38 111 540

S 38 111 240

DN	ØD	ØD ₁	ØD ₂	ØD ₃	a	f	n	Ød	L	V	Z	ØD _K	kg
40	40	150	110	88	18	3	4	18	240	370	60	200	20
50	50	165	125	102	20	3	4	18	250	360	72	200	27
65	65	185	145	122	22	3	4	18	290	440	85	250	38
80	80	200	160	138	24	3	8	18	310	465	92	250	44
100	100	235	190	162	24	3	8	22	350	520	117	250	56
125	125	270	220	188	26	3	8	26	400	635	150	300	101
150	150	300	250	218	28	3	8	26	450	705	170	400	125
200	200	375	320	285	34	3	12	30	550	840	225	450	223
250	250	450	385	345	38	3	12	33	650	988	280	500	383
300	300	515	450	410	42	4	16	33	750	1122	330	500	520
350	350	580	510	465	46	4	16	36	850	1242	365	560	700
400	400	660	585	535	50	4	16	39	950	1417	420	630	910
500	500	755	670	615	52	4	20	42	1150	1720	520	710	1448

GATE VALVES

S 38

PN 63

S 38 111 563

S 38 111 263

DN	ØD	ØD ₁	ØD ₂	ØD ₃	a	f	n	Ød	L	V	Z	ØD _K	kg
40	40	170	125	88	26	3	4	22	240	400	50	200	25
50	50	180	135	102	26	3	4	22	250	360	72	200	38
65	65	205	160	122	26	3	8	22	290	440	85	250	55
80	80	215	170	138	28	3	8	22	310	465	92	250	60
100	100	250	200	162	30	3	8	26	350	540	117	300	95
125	125	295	240	188	34	3	8	30	400	635	150	300	161
150	150	345	280	218	36	3	8	33	450	805	170	500	260
200	200	415	345	285	42	3	12	36	550	865	225	500	333
250	250	470	400	345	46	3	12	36	650	1060	275	630	495
300	300	530	460	410	52	4	16	36	750	1184	330	630	675
350	350	600	525	465	56	4	16	39	850	1400	375	710	911
400	400	670	585	535	60	4	16	42	950	1545	435	710	1206
500	500	800	705	615	68	4	20	48	1150	1870	540	800	2840

PN 100

S 38 111 5100

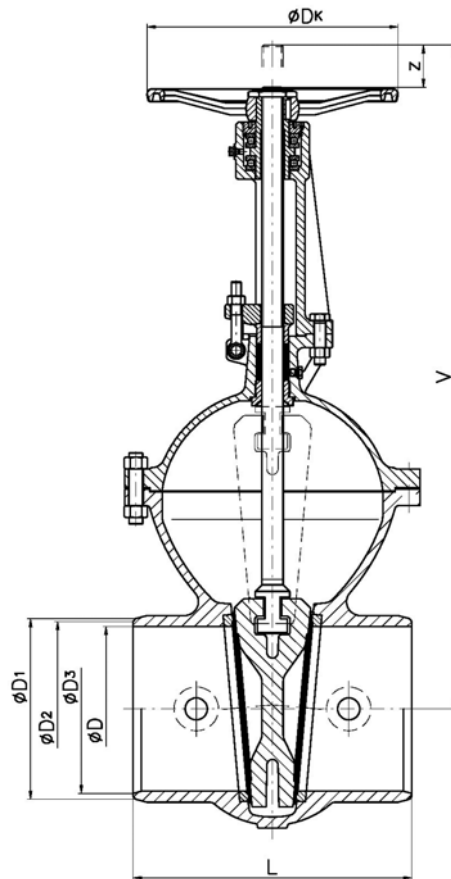
S 38 111 2100

DN	ØD	ØD ₁	ØD ₂	ØD ₃	a	f	n	Ød	L	V	Z	ØD _K	kg
40	40	170	125	88	28	3	4	22	240	400	50	200	29
50	50	195	145	102	30	3	4	26	250	370	72	200	42
65	65	220	170	122	34	3	8	26	290	440	85	250	59
80	80	230	180	138	36	3	8	26	310	465	92	250	61
100	100	265	210	162	40	3	8	30	350	540	117	300	105
125	125	315	250	188	40	3	8	33	400	635	150	300	163
150	150	355	290	218	44	3	12	33	450	805	170	500	275
200	200	430	360	278	52	3	12	36	550	865	225	500	434
250	250	505	430	340	60	3	12	39	650	1060	275	630	689
300	300	585	500	402	68	4	16	42	750	1184	330	630	1000
350	350	655	560	460	74	4	16	48	850	1400	375	710	1153
400	400	715	620	518	78	4	16	48	950	1545	435	710	1435
500	500	870	760	630	94	4	20	56	1150	1870	540	800	2900

GATE VALVES

S 38

WELDING-ON DESIGN



PN 16

S 38 121 516
S 38 121 216

DN	ØD	L	V	z	ØD _k	Trxt	kg
40	40	240	350	60	200	18x4	19
50	50	250	360	72	200	18x4	27
65	65	270	440	85	250	24x5	36
80	80	280	465	92	250	24x5	40
100	100	300	520	117	250	24x5	55
125	125	325	635	150	300	28x5	89
150	150	350	705	170	400	30x6	110
200	200	400	840	225	400	32x6	192
250	250	450	965	280	450	36x6	265
300	300	500	1120	330	500	40x6	376
350	350	550	1210	365	500	40x6	511
400	400	600	1390	420	560	44x7	657
500	500	700	1680	520	630	50x8	1090

Dimensions D₁, D₂, D₃ – as per pipeline used (by arrangement with the customer)

GATE VALVES

S 38

PN 25

S 38 121 525

S 38 121 225

DN	ØD	L	V	z	ØD _K	Trxt	kg
40	40	240	350	60	200	18x4	19
50	50	250	360	72	200	18x4	27
65	65	270	440	85	250	24x5	36
80	80	280	465	92	250	24x5	40
100	100	300	520	117	250	24x5	55
125	125	325	635	150	300	28x5	89
150	150	350	705	170	400	30x6	122
200	200	400	840	225	400	32x6	202
250	250	450	965	280	450	36x6	278
300	300	500	1122	330	500	40x6	394
350	350	550	1212	365	500	40x6	541
400	400	600	1387	420	560	44x7	695
500	500	700	1680	520	630	50x8	1127

Dimensions D₁, D₂, D₃ – as per pipeline used (by arrangement with the customer)

PN 40

S 38 121 540

S 38 121 240

DN	ØD	L	V	z	ØD _K	Trxt	kg
40	40	240	370	60	200	18x4	20
50	50	250	360	72	200	18x4	27
65	65	290	440	85	250	24x5	38
80	80	310	465	92	250	24x5	44
100	100	350	520	117	250	24x5	56
125	125	400	635	150	300	28x5	101
150	150	450	705	170	400	30x6	125
200	200	550	840	225	450	36x6	223
250	250	650	988	280	500	40x6	383
300	300	750	1122	330	500	40x6	520
350	350	850	1242	365	560	45x8	700
400	400	950	1417	420	630	50x8	910
500	500	1150	1720	520	710	50x8	1448

Dimensions D₁, D₂, D₃ – as per pipeline used (by arrangement with the customer)

GATE VALVES

S 38

PN 63

S 38 121 563

S 38 121 263

DN	ØD	L	V	z	ØD _K	Trxt	kg
40	40	240	400	50	200	18x4	25
50	50	250	360	72	200	18x4	38
65	65	290	440	85	250	24x5	55
80	80	310	465	92	250	24x5	60
100	100	350	540	117	300	28x5	95
125	125	400	635	150	300	28x5	161
150	150	450	805	170	500	40x7	260
200	200	550	865	225	500	40x7	333
250	250	650	1060	275	630	50x8	495
300	300	750	1184	330	630	50x8	675
350	350	850	1400	375	710	60x9	911
400	400	950	1545	435	710	60x9	1206
500	500	1150	1870	540	800	70x10	2840

Dimensions D₁, D₂, D₃ – as per pipeline used (by arrangement with the customer)

PN 100

S 38 121 5100

S 38 121 2100

DN	ØD	L	V	z	ØD _K	Trxt	kg
40	40	240	400	50	200	18x4	29
50	50	250	370	72	200	18x4	42
65	65	290	440	85	250	24x5	59
80	80	310	465	92	250	24x5	61
100	100	350	540	117	300	28x5	105
125	125	400	635	150	300	28x5	163
150	150	450	805	170	500	40x7	275
200	200	550	865	225	500	40x7	434
250	250	650	1060	275	630	50x8	689
300	300	750	1184	330	630	50x8	1000
350	350	850	1400	375	710	60x9	1153
400	400	950	1545	435	710	60x9	1435
500	500	1150	1870	540	800	70x10	2900

Dimensions D₁, D₂, D₃ – as per pipeline used (by arrangement with the customer)

GATE VALVES

S 38

TYPE DESIGNATION

S 38.1 XXX XX / X

FLOW DIRECTION

CONNECTION

CONTROL

ALLOY STEEL GRADE

NOMINAL PRESSURE

MATERIAL

FLOW DIRECTION

1 STRAIGHT

CONNECTION

1 FLANGED
2 WELDED-ON
8 COMBINED

CONTROL

1 HAND-WHEEL
2 GEARBOX + HAND-WHEEL
3 ELECTRIC ACTUATOR
4 PNEUMATIC OR HYDRAULIC ACTUATOR
5 ADJUSTED FOR ACTUATOR CONNECTION

MATERIAL

0 STAINLESS STEEL
2 ALLOY STEEL FOR CASTINGS
5 CARBON STEEL FOR CASTINGS

ALLOY STEEL GRADE

B FOR LOW TEMPERATURES (-50 °C TO +400 °C)
IX FOR HIGH TEMPERATURES (-20 °C TO +550 °C)