

Application

Gate valves are isolating valves designed for full closing or opening of working media flow. If the gate valves are used for regulating or throttling purposes, the manufacturer does not guarantee tightness of the gate valves. For regulation we recommend to use special control gate valve type S33.C.

Working medium

- water
 - non-corrosive liquids
 - steam
 - air
 - gases of group 1 and 2
 - petroleum and petroleum products
- The service fluids shall not contain rough impurities.

Technical description

The gate valve is an outside-screw-and-yoke, full bore with flexible wedge and rising stem. The body and the bonnet are made of castings and are connected by a flanged joint. The seating surfaces of the seats and the wedge are made in compliance with API 600. The seat rings are welded into the body. The gate valves are equipped with a back seat. The gate valves are a bi-directional sealing valves. The body-bonnet joint and the packing chamber are sealed with asbestos-free gasket and packing which guarantee a long life service. The requirement for an automatic body cavity pressure relief shall be specified in the purchase order. Pressure relief can be achieved by:

- drilling a hole through one disc of the wedge,
- special valve incorporated into the wedge,
- external bypass,
- use of solid wedge.

TA-Luft design on request.

Connection to piping

- **flanged ends** - according to EN 1092-1 or GOST, face-to-face dimensions are according to EN 558, Series 14 or GOST.
- **welded ends** - according to EN 12627

Operation

The gate valves are delivered with a handwheel, a manual bevel gear, an electric actuator or bare stem ready for connection to an actuator. The standard connecting dimensions for connection to a manual gear or an electric actuator meet the requirements of ISO 5210.



Accessories

The gate valves can be equipped with the following accessories:

- drain valve,
- air-vent valve,
- by-pass valves,
- stand for remote control, including chains and chain wheels,
- vent plugs,
- gland packing „live loading“.

Testing

The gate valves are subjected to the following tests performed with water:

- shell strength test
- shell tightness test
- seat tightness test and operability test according to EN 12266.
- other tests by agreement.

Installation

The gate valves may be installed into the piping in vertical or horizontal position. The gate valves S33.4 must be installed only into horizontal position with stem in vertical position and with actuator on the top. In case of gate valves equipped with an electric actuator or a pneumatic actuator, must you follow instructions of the manufacturer of actuators.

Production range

Type	PN	DN																					
		40	50	65	80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400	1600	
S33.1	16,		.	.	.	.	.	.	.	.	.	.	.	.	.
	25									
	40									
	63									
	100									
S33.2	6, 10, 16	.	.	.	.	.	.	.	.	.	.	.	.	.
S33.3	16	.	.	.	.	.	.	.	.	.	.	.	.	.
S33.4	2,5													.	.	.	.	.	.	.	.	.
	6													.	.	.	.	.	.	.	.	.
	10													.	.	.	.	.	.	.	.	.
	16													.	.	.	.	.	.	.	.	.
	25													.	.	.	.	.	.	.	.	.



DN 50-600 • PN 16-100 • Tmax 450 °C (595 °C)

Body design: yoke gate valve

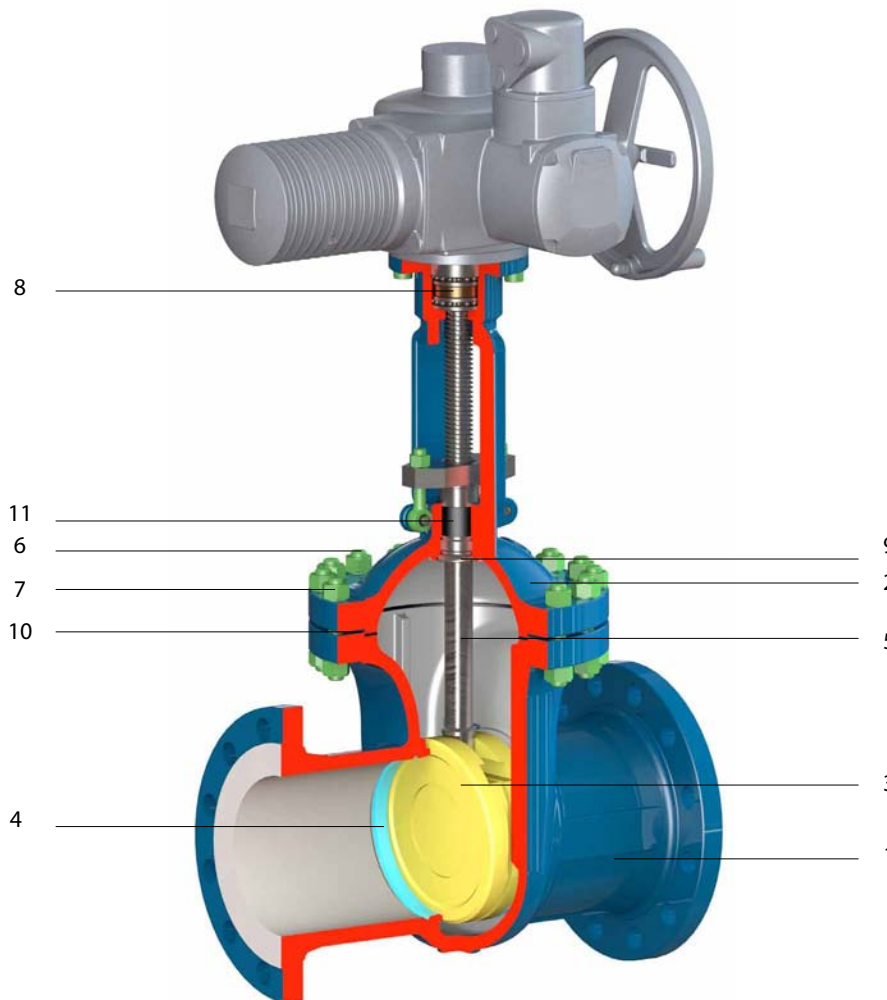
Body, bonnet, wedge: cast

Rising stem

Flexible wedge

Connection:  EN 1092-1 FLANGED ENDS

 EN 12 627 WELDED ENDS



Material

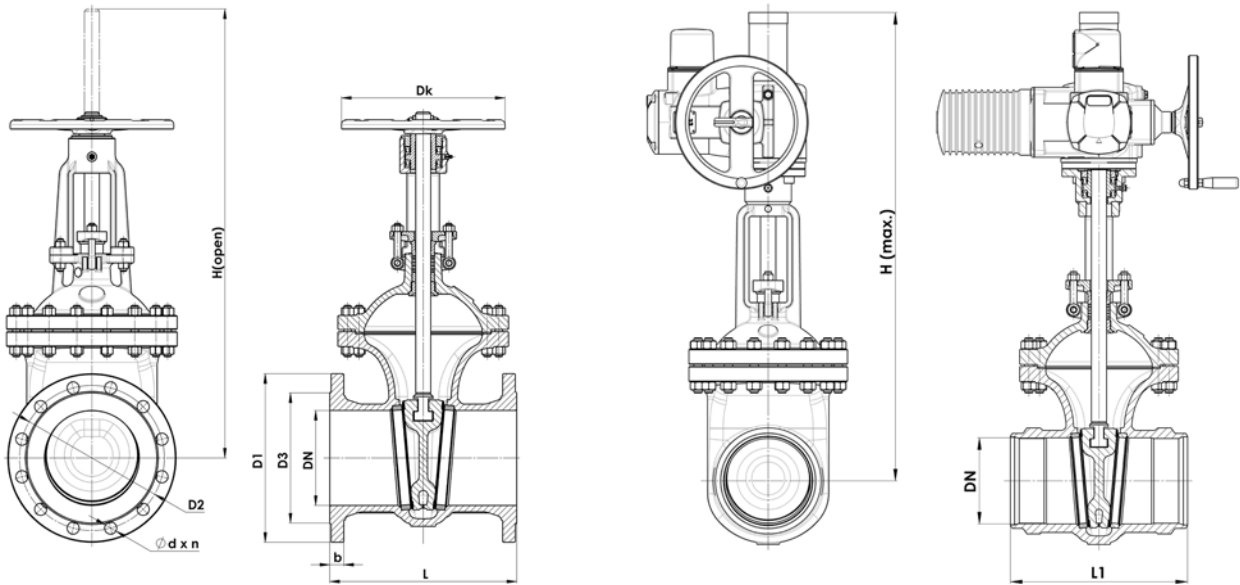
Position	Component	EN			
		Carbon steel	Alloy steel	Carbon steel for low temperatures	Stainless steel
1	Body	1.0619	1.7357	1.6220	1.4408
2	Bonnet	1.0619	1.7357	1.6220	1.4408
3	Wedge + overlay	1.0619 + 13Cr	1.7357 + Stellite 6	1.6220 + F304	1.4408
4	Seat + overlay	1.0460 + 13Cr	1.7335 + Stellite 6	1.0566 + Stellite 6	1.4401
5	Stem	1.4021	1.4923	1.4301	1.4401
6	Bonnet bolts	1.7218*	1.7709*	1.7225*	1.4401*
7	Bonnet nuts	1.1191*	1.7709*	1.7225*	1.4401*
8	Stem nut	Ni-rezist, Al-bronze			
9	Back seat	1.4006 + Hard facing		1.4301 + Hard facing	1.4401 + Hard facing
10	Gasket	Graphite with stainless steel insert			
11	Packing	Pressed graphite			

* equivalent or according to customer's request



DN 50-600 • PN 16-100 • Tmax 450 °C (595 °C)
 Body design: yoke gate valve

Connection: EN 1092-1 FLANGED ENDS
 EN 12 627 WELDED ENDS



PN 16

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	d x n	kg	BW	
											L1	kg
50	165	125	102	250	360	605	200	18	18x4	20	216	17
65	185	145	122	270	410	630	250	18	18x8	30	241	26
80	200	160	138	280	460	670	250	20	18x8	36	283	34
100	220	180	158	300	550	740	300	20	18x8	49	305	48
125	250	210	188	325	660	810	300	22	18x8	66	381	72
150	285	240	212	350	775	930	300	22	22x8	95	404	100
200	340	295	268	400	960	1070	350	24	22x12	154	419	160
250	405	355	320	450	1175	1245	400	26	26x12	225	457	240
300	460	410	378	500	1360	1430	500	28	26x12	334	502	355
350	520	470	438	550	1525	1550	550	30	26x16	445	762	490
400	580	525	490	600	1675	1720	600	32	30x16	610	838	690
500	715	650	610	700	2050	2080	700	44	33x20	1105	991	1070
600	840	770	725	800	2400	2480	800	54	36x20	1190	1143	1660

PN 25

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	d x n	kg	BW	
											L1	kg
50	165	125	102	250	360	605	200	20	18x4	20	216	17
65	185	145	122	270	410	630	250	22	18x8	32	241	26
80	200	160	138	280	460	670	250	24	18x8	39	283	34
100	235	190	162	300	550	740	300	24	22x8	53	305	48
125	270	220	188	325	660	810	300	26	26x8	71	381	72
150	300	250	218	350	775	930	300	28	26x8	101	404	100
200	360	310	278	400	960	1070	350	30	26x12	160	419	160
250	425	370	335	450	1175	1245	400	32	30x12	232	457	240
300	485	430	395	500	1360	1430	500	34	30x16	345	502	355
350	555	490	450	550	1525	1550	550	38	33x16	460	762	490
400	620	550	505	600	1675	1720	600	40	36x16	645	838	690
500	730	660	615	700	2050	2080	700	48	36x20	1166	991	1070
600	845	770	720	800	2450	2480	800	58	39x20	1258	1143	1660

* only for an actuator , L1 - welded ends with nipples



DN 50-600 • PN 16-100 • Tmax 450 °C (595 °C)
Body design: yoke gate valve

Connection:  EN 1092-1 FLANGED ENDS
 EN 12 627 WELDED ENDS

PN 40

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	d x n	kg	BW	
											L1	kg
50	165	125	102	250	360	605	200	20	18x4	20	216	17
65	185	145	122	290	410	630	250	22	18x8	28	241	26
80	200	160	138	310	460	670	250	24	18x8	44	283	34
100	235	190	162	350	560	740	300	24	22x8	62	305	48
125	270	220	188	400	660	810	300	26	26x8	87	381	72
150	300	250	218	450	765	930	350	28	26x8	125	404	100
200	375	320	285	550	955	1070	400	34	30x12	265	419	160
250	450	385	345	650	1185	1245	450	38	33x12	405	457	240
300	515	450	410	750	1380	1430	500	42	33x16	500	502	355
350	580	510	465	850	1510	1550	500	46	36x16	725	762	490
400	660	585	535	950	1690	1720	600	50	39x16	1280	838	690
500	755	670	615	1150	2065	2080	600	52	42x20	1589	991	1070
600	890	795	735	1350	2465	2480	700	60	48x20	1903	1143	1660

PN 63

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	d x n	kg	BW	
											L1	kg
50	180	135	102	250	420	655	280	26	22x4	37	292	28
65	205	160	122	290	470	735	280	26	22x8	46	330	37
80	215	170	138	310	525	770	300	28	22x8	49	356	38
100	250	200	162	350	620	835	350	30	26x8	86	432	75
125	295	240	188	400	715	910	350	34	30x8	129	508	113
150	345	280	218	450	815	980	400	36	33x8	150	559	132
200	415	345	285	550	1115	1205	500	42	36x12	360	660	320
250	470	400	345	650	1280	1360	640	46	36x12	570	787	500
300	530	460	410	750	1550	1570	680	52	36x16	815	838	720
350	600	525	465	850	1665	1680	-	56	39x16	1080	889	950
400	670	585	535	950	1820	1840	-	60	42x16	1460	991	1290
500	800	705	615	1150	2235	2250	-	68	48x20	2315	1194	2040
600	930	820	735	1350	2570	2590	-	76	56x20	3480	1397	3060

PN 100

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	d x n	kg	BW	
											L1	kg
50	195	145	102	250	420	655	280	30	26x4	39	292	29
65	220	170	122	290	470	735	280	34	26x8	50	330	39
80	230	180	138	310	525	770	300	36	26x8	54	356	40
100	265	210	162	350	620	835	350	40	30x8	94	432	80
125	315	250	188	400	715	910	350	40	33x8	138	508	122
150	355	290	218	450	815	980	400	44	33x12	160	559	141
200	430	360	285	550	1115	1205	500	52	36x12	385	660	340
250	505	430	345	650	1280	1360	640	60	39x12	610	787	540
300	585	500	410	750	1550	1570	680	68	42x16	890	838	780
350	655	560	465	850	1665	1680	-	74	48x16	1190	889	1050
400	715	620	535	950	1820	1840	-	78	48x16	1570	991	1380
500	870	760	615	1150	2235	2250	-	90	56x20	2630	1194	2315
600	940	838	692	1350	2570	2590	-	105	52x24	3870	1397	3405

* only for an actuator, L1 - welded ends with nipples