

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, with flexible or solid wedge, rising or non-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.

TA-Luft design on request.

Connection to the piping

- **flanged ends** - acc. to EN 1092-1 or GOST, face-to-face dimensions are acc. to EN 558, Series 14, 15 and 26 or GOST
- **welded ends** - acc. 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. 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

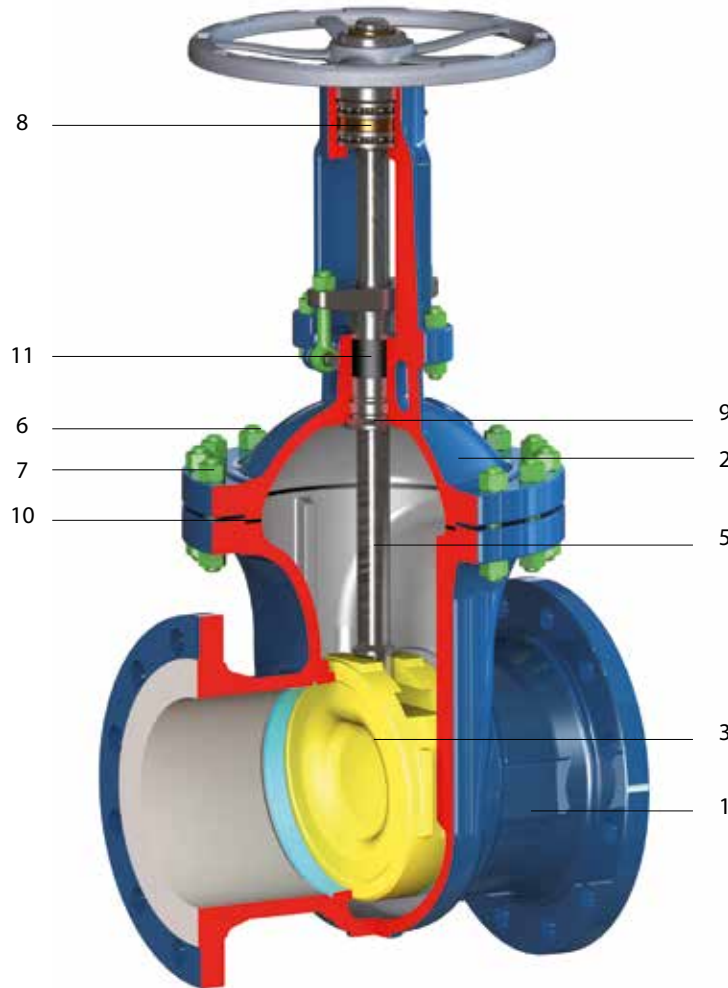
Typ	PN	DN																						
		50	65	80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	
S33.1 S33.C*	16
	25
	40
	63
	100
S33.2	6, 10, 16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
S33.3	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
S33.4 S33.C*	2,5												.	.	.	.	.	.	.	.	.	.	.
	6												.	.	.	.	.	.	.	.	.	.	.
	10												.	.	.	.	.	.	.	.	.	.	.
	16												.	.	.	.	.	.	.	.	.	.	.
	25												.	.	.	.	.	.	.	.	.	.	.
S33.5	10												.	.	.	.	.	.	.	.	.	.	.
	16												.	.	.	.	.	.	.	.	.	.	.
	25												.	.	.	.	.	.	.	.	.	.	.

* DN 150 and higher in cast design (S33.1)
Up to DN 1200 in welded design (S33.4)



DN 50-600 • PN 6-16 • Tmax 450 °C (550 °C)
 Body design: yoke gate valve
 Body, bonnet, wedge: cast
 Rising stem
 Solid wedge

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



Material acc. to EN

Position	Component	Carbon steel	Stainless steel
1	Body + overlay	1.0619 / A216 WCB + 13Cr	1.4408 / A351 CF8M
2	Bonnet	1.0619 / A216 WCB	1.4408 / A351 CF8M
3	Wedge + overlay	1.0619 / A216 WCB + 13Cr	1.4408 / A351 CF8M
5	Stem	1.4021 / A182 F6a	1.4401 / A182 F316
6	Bonnet bolts*	1.7218 / A193 B7	1.4401 / A193 B8
7	Bonnet nuts*	1.1191 / A194 2H	1.4401 / A194 8
8	Stem nut	Ni-rezist, Al-bronze	
9	Back seat	Overlay 13Cr / 1.4021 / A276 410T	Overlay F316 / 1.4401 / A182 F316
10	Gasket	Graphite with stainless steel insert	
11	Packing	Braided graphite cord + formed graphite rings	

* Other TRIMs according to API 600

** Equivalent or according to customer's request

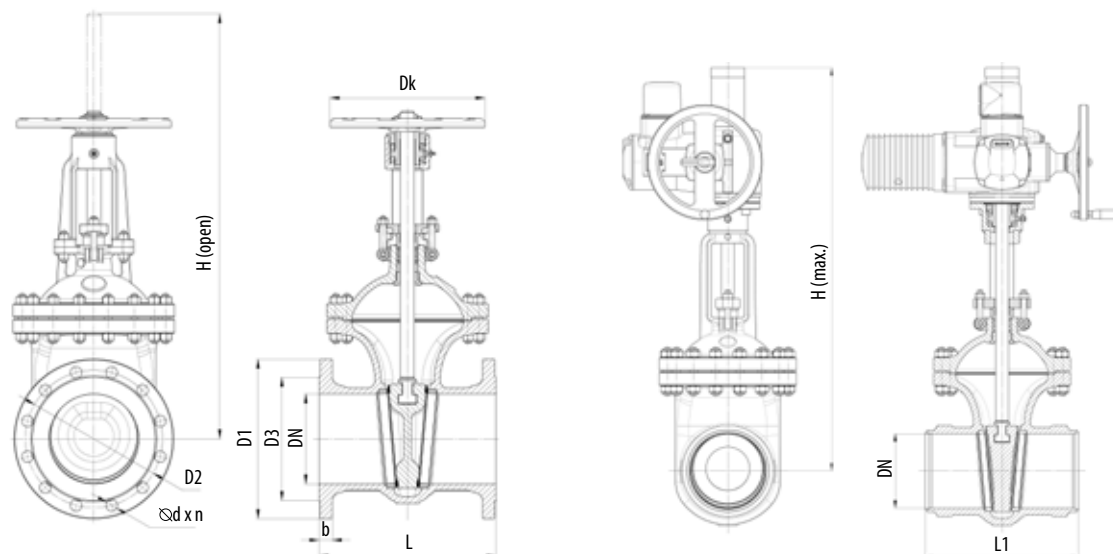


DN 50-600 • PN 6-16 • Tmax 450 °C (550 °C)

Body design: yoke gate valve

Connection: EN 1092-1 FLANGED ENDS

EN 12 627 WELDED ENDS



PN 6

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	Ød x n	kg	BW**	
											L1	kg
50	140	110	90	150	360	605	160	14	14 x 4	16	-	-
65	160	130	110	170	430	650	160	14	14 x 4	18	-	-
80	190	150	128	180	470	680	160	16	18 x 4	23	-	-
100	210	170	148	190	545	735	200	16	18 x 4	36	-	-
125	240	200	178	200	650	790	200	18	18 x 8	48	-	-
150	265	225	202	210	720	885	200	18	18 x 8	60	-	-
200	320	280	258	230	950	1060	250	20	18 x 8	97	-	-
250	375	335	312	250	1170	1240	320	22	18 x 12	166	-	-
300	440	395	365	270	1430	1500	400	22	22 x 12	210	-	-
350	490	445	415	290	1540	1565	450	22	22 x 12	345	-	-
400	540	495	465	310	1755	1800	500	22	22 x 16	480	-	-
500	645	600	570	350	2195	2230	500	24	22 x 20	645	-	-
600	755	705	670	390	2660	2740	600	30	26 x 20	895	-	-

PN 10

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	Ød x n	kg	BW**	
											L1	kg
50	165	125	102	150	360	605	200	18	18 x 4	17	-	-
65	185	145	122	170	430	650	200	18	18 x 8	19	-	-
80	200	160	138	180	470	680	250	20	18 x 8	25	-	-
100	220	180	158	190	545	735	280	20	18 x 8	36	-	-
125	250	210	188	200	650	790	300	22	18 x 8	52	-	-
150	285	240	212	210	720	885	300	22	22 x 8	62	-	-
200	340	295	268	230	950	1060	350	24	22 x 8	88	-	-
250	395	350	320	250	1170	1240	400	26	22 x 12	180	-	-
300	445	400	370	270	1430	1500	450	26	22 x 12	230	-	-
350	505	460	430	290	1630	1565	500	26	22 x 16	380	-	-
400	565	515	482	310	1755	1800	600	26	26 x 16	505	-	-
500	670	620	585	350	2195	2230	600	28	26 x 20	700	-	-
600	780	725	685	390	2660	2740	600	34	30 x 20	985	-	-

PN 16

DN	D1	D2	D3	L	H (open)	H (max.)*	Dk	b	Ød x n	kg	BW**	
											L1	kg
50	165	125	102	180	360	645	200	18	18 x 4	20	250	19
65	185	145	122	200	430	730	200	18	18 x 8	21	270	29
80	200	160	138	210	470	740	200	20	18 x 8	32	280	34
100	220	180	158	230	545	790	250	20	18 x 8	40	300	48
125	250	210	188	255	650	780	250	22	18 x 8	49	325	68
150	285	240	212	280	720	930	320	22	22 x 8	74	350	92
200	340	295	268	330	953	1060	400	24	22 x 12	117	400	155
250	405	355	320	450	1225	1295	450	26	26 x 12	210	450	240
300	460	410	378	500	1440	1510	500	28	26 x 12	300	500	355
350	520	470	438	550	1650	1675	600	30	26 x 16	510	550	450
400	580	525	490	600	1820	1865	600	32	30 x 16	670	600	630
500	715	650	610	700	2080	2110	700	44	33 x 20	930	700	990
600	840	770	725	800	2560	2640	800	54	36 x 20	1310	800	1500

*H(max.) - Maximum height in standard operation design

** Butt-weld ends with forged nipples on request. Butt-weld ends PN 16 on request.