

### 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 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

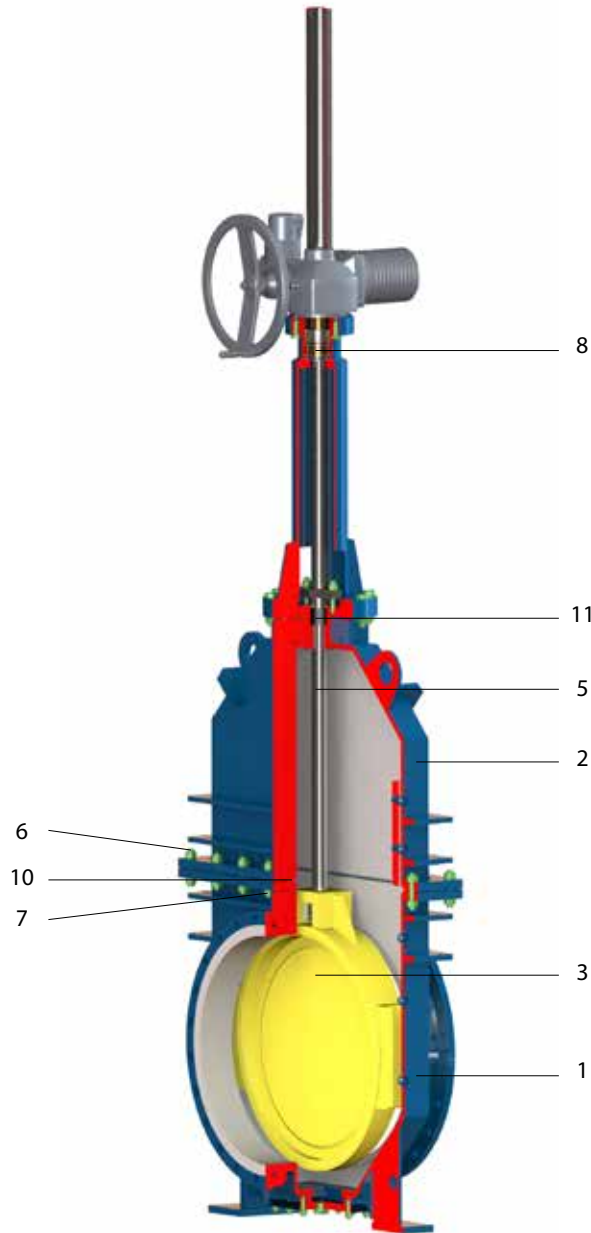
The gate valves may be installed into the piping in vertical or horizontal position. In case of gate valves equipped with an electric actuator or a pneumatic actuator, must you follow instructions of the manufacturer of actuators.

### Production range

Type	PN	DN																									
		40	50	65	80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000	1100	1200	1300	1400	1600	1800	2000	
S33.1 S33.C	16		.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.
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S33.2	6, 10, 16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
S33.3	16	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	.	
S33.4	2,5													.	.	.	.	.	.	.	.	.	.	.	.	.	
	6													.	.	.	.	.	.	.	.	.	.	.	.	.	
	10													.	.	.	.	.	.	.	.	.	.	.	.	.	
	16													.	.	.	.	.	.	.	.	.	.	.	.	.	
	25													.	.	.	.	.	.	.	.	.	.	.	.	.	

DN 500-2000 • PN 2,5-25 • Tmax 300°C  
 Body design: yoke gate valve  
 Body, bonnet: fabricated  
 Rising stem  
 Solid wedge

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



### Material acc. to EN

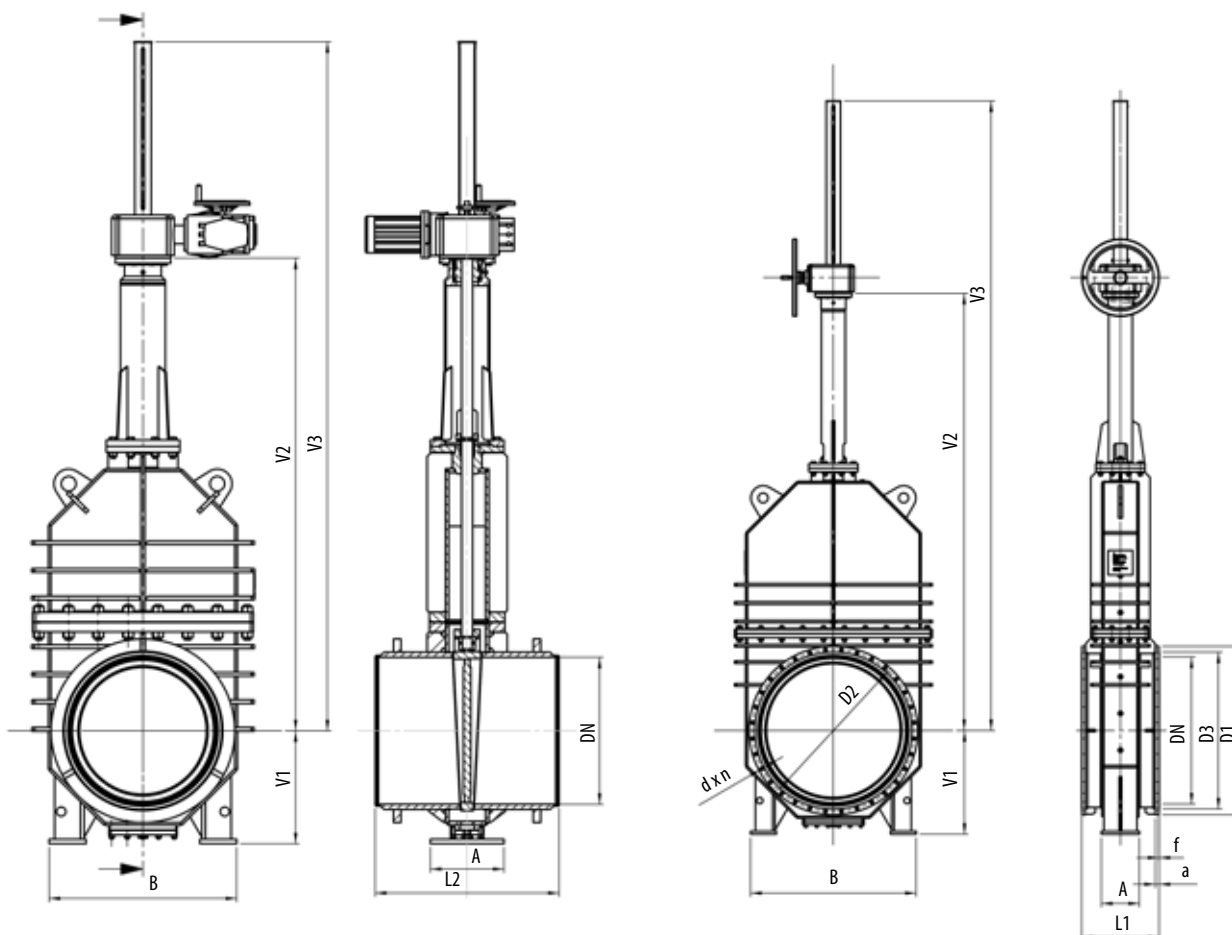
Position	Component	Carbon steel	Carbon steel for low temperatures
1	Body + overlay	1.0425 + 13Cr	1.0566 + 13Cr
2	Bonnet	1.0425	1.0566
3	Wedge + overlay	1.0425 + 13Cr	1.0566 + 13Cr
5	Stem	1.4021	1.4021
6	Bonnet bolts*	1.7218*	1.7225*
7	Bonnet nuts*	1.1191*	1.7225*
8	Stem nut	A439 D2 (Ni-resist), Al-bronze	
10	Gasket	Graphite with stainless steel insert	
11	Packing	Pressed graphite	

\* equivalent or according to customer's request



DN 500-2000 • PN 2,5-25 • Tmax 300 °C  
Body design: yoke gate valve

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



## PN 2,5

DN	L1	L2	D1	D2	D3	a	n	d	V1	V2	V3	kg	
												flanged ends	welded ends
500	350	700	645	600	570	29	20	22	540	1758	2410	750	726
600	390	800	755	705	670	30	20	26	560	1996	2757	972	941
700	430	900	860	810	775	30	24	26	565	2248	3285	1290	1249
800	470	1000	975	920	880	30	24	30	739	2550	3687	1520	1472
900	510	1100	1075	1020	980	32	28	30	790	2860	3800	1820	1805
1000	550	1200	1175	1120	1080	32	28	30	830	2998	4335	2180	2111
1100	590	1300	1275	1220	1180	35	32	30	965	3289	4510	2560	2510
1200	630	1400	1375	1320	1280	35	32	30	940	3568	5137	2950	2856
1300	670	1400	1470	1420	1380	38	32	30	980	3910	5590	3560	
1400	710	1400	1575	1520	1480	40	36	30	1054	4210	5892	3910	
1600	790	1400	1790	1730	1690	43	40	30	1155	4683	6691	5445	
1800	870	1400	1990	1930	1890	50	44	30	1300	5000	7225	7900	
2000	950	1400	2190	2130	2090	55	48	30	1380	5720	7845	9420	



DN 500-2000 • PN 2,5-25 • Tmax 300 °C  
Body design: yoke gate valve

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

### PN 6

DN	L1	L2	D1	D2	D3	a	n	d	V1	V2	V3	kg	
												flanged ends	welded ends
500	350	700	645	600	570	29	20	22	510	1746	2410	810	784
600	390	800	755	705	670	30	20	26	620	1996	2757	980	949
700	430	900	860	810	775	30	24	26	670	2338	3285	1315	1273
800	470	1000	975	920	880	30	24	30	730	2488	3687	1550	1501
900	510	1100	1075	1020	980	38	28	30	790	2860	3800	1850	1802
1000	550	1200	1175	1120	1080	38	28	30	830	2998	4335	2210	2140
1100	590	1300	1290	1230	1190	40	32	30	965	3289	4510	2670	2560
1200	630	1400	1405	1340	1295	45	32	33	940	3568	5137	3162	3061
1300	670	1400	1520	1450	1405	45	32	33	980	3910	5590	3820	
1400	710	1400	1630	1560	1510	50	36	36	1035	4103	5620	4320	
1600	790	1400	1830	1760	1710	50	40	36	1160	4780	6600	5850	
1800	870	1400	2045	1970	1920	65	44	39	1300	5000	7225	8120	
2000	950	1400	2265	2180	2125	80	48	42	1380	5720	7845	9910	

### PN 10

DN	L1	L2	D1	D2	D3	a	n	d	V1	V2	V3	kg	
												flanged ends	welded ends
500	700	700	670	620	585	34	20	26	510	1746	2410	1480	1433
600	800	800	780	725	685	35	20	30	560	1996	2757	1715	1660
700	900	900	895	810	800	38	24	30	565	2248	3317	2020	1956
800	1000	1000	1015	950	905	48	24	33	739	2550	3719	2238	2167
900	1100	1100	1115	1050	1005	53	28	33	780	2788	3824	2550	2452
1000	1200	1200	1230	1160	1110	63	28	36	830	3032	4440	3100	3001
1100	1300	1300	1345	1270	1220	73	28	36	965	3289	4510	3370	
1200	1400	1400	1455	1380	1330	78	32	39	940	3568	5137	3850	
1300	1400	1400	1565	1485	1435	85	32	39	980	3910	5590	4520	
1400	1400	1400	1675	1590	1535	93	36	42	1035	4103	5620	5020	
1600	1400	1400	1915	1820	1760	103	40	48	1160	4780	6600	6550	

### PN 16

DN	L1	L2	D1	D2	D3	a	n	d	V1	V2	V3	kg	
												flanged ends	welded ends
500	700	700	715	650	610	42	20	33	510	1746	2410	1510	1462
600	800	800	840	770	725	53	20	36	560	1996	2757	1745	1690
700	900	900	910	840	800	58	24	36	650	2333	3717	2055	1990
800	1000	1000	1025	950	905	63	24	39	739	2550	3719	2285	2212
900	1100	1100	1125	1050	1000	68	28	39	780	2788	3824	2860	2750
1000	1200	1200	1255	1170	1110	83	28	42	840	3032	4440	3200	3098
1100	1300	1300	1370	1280	1220	93	28	42	975	3299	4520	3480	
1200	1400	1400	1485	1390	1330	98	32	48	950	3578	5147	4550	

### PN 25

DN	L1	L2	D1	D2	D3	a	n	d	V1	V2	V3	kg	
												flanged ends	welded ends
500	700	700	730	660	615	52	20	36	510	1746	2410	2000	1936
600	800	800	845	770	720	65	20	39	560	1996	2757	2250	2178
700	900	900	960	875	820	73	24	42	565	2248	3356	2550	2469
800	1000	1000	1085	990	930	83	24	48	615	2550	3758	2960	2866
900	1100	1100	1185	1090	1030	83	28	48	749	2560	3729	3560	
1000	1200	1200	1320	1210	1140	103	28	56	790	2798	3834	3950	
1100	1300	1300	1425	1315	1245	108	28	56	985	3399	4530	4180	
1200	1400	1400	1530	1420	1350	112	32	56	960	3588	5157	5250	

\* F ISO 5210 form C