

Application

Gate valves are shut-off valves. It is used especially in power engineering, chemical industry as well as other industries depending on material selection.

Working medium

- water
- steam
- gas
- other fluids

Technical description

The body is a forging into which a flexible wedge is inserted through the yoke-type bonnet or through the pressure seal bonnet. The seating surfaces of the wedge are hard faced and proper seating of the wedge is provided for by precision-machined guides in the body. The seat rings are weld deposited in the body and hard faced as well. The bonnet and the stuffing box are sealed with special graphite gaskets and packing rings. The gate valves can be on request designed with pressure cavity released system against over pressurizing of body cavity. There is an option of drilling a hole on an input side of the disc, using diaphragm or safety valve or making a by-pass. Also upon request, the gate valve can be equipped with one to three bypass valves.

Connection to the piping

- **flanged ends** acc. to EN 1092-1, ISO 7005-1, GOST 33259-2015
- **welded ends** acc. to EN 12627



Operation

- manual (hand wheel)
- electric actuator
- pneumatic actuator
- actuator located out of the valve

Gate valves can be equipped with a locking device.

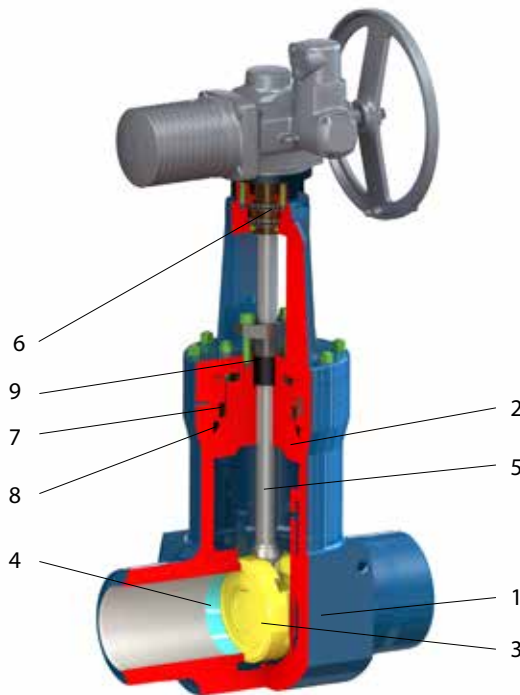
Testing

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.



Position	Component
1	Body
2	Pressure seal bonnet
3	Wedge + overlay
4	Seat + overlay
5	Stem
6	Stem nut
7	Segmented ring
8	Gasket
9	Packing

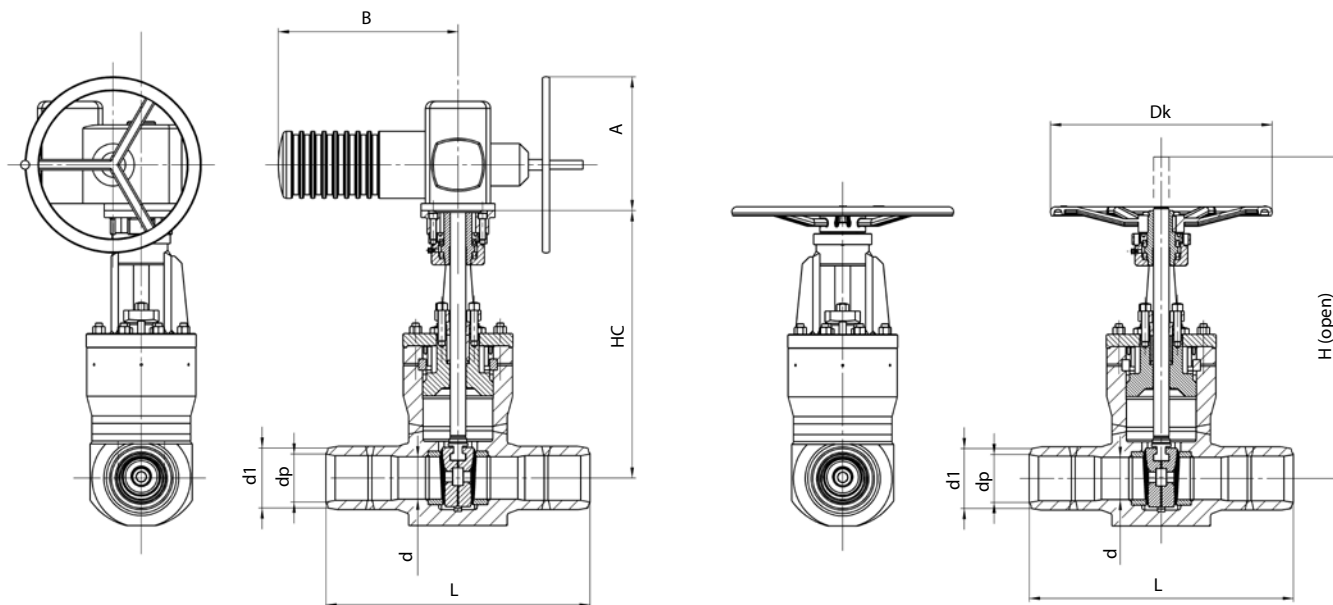
Production range

Typ	PN	DN												
		50	65	80	100	125	150	200	250	300	350	400	500	600
S43.1	63	.	.	.	.	.	.	.	.	.	.	.	.	.
	100	.	.	.	.	.	.	.	.	.	.	.	.	.
S43.3	16	.	.	.	.	.	.	.	.	.	.	.	.	.
	25	.	.	.	.	.	.	.	.	.	.	.	.	.
	40	.	.	.	.	.	.	.	.	.	.	.	.	.
	63	.	.	.	.	.	.	.	.	.	.	.	.	.
S43.5	100	.	.	.	.	.	.	.	.	.	.	.	.	.
	160	.	.	.	.	.	.	.	.	.	.	.	.	.
	250	.	.	.	.	.	.	.	.	.	.	.	.	.
	320	.	.	.	.	.	.	.	.	.	.	.	.	.
	400	.	.	.	.	.	.	.	.	.	.	.	.	.



DN 65-400 • PN 160-400 • T_{max} 650 °C (450 °C)
 Body design: forged body, pressure seal bonnet
 Rising stem

Connection: EN 12627 WELDED ENDS
 EN 1092-1, ISO 7005-1 FLANGED ENDS
 (on request)



Material acc. to EN

Component	T _{max} 450 °C	T _{max} 530 °C	T _{max} 570 °C	T _{max} 570 °C	T _{max} 600 °C	T _{max} 450 °C	T _{max} 650 °C
Body	P250GH (1.0460)	16Mo3 (1.5415)	13CrMo4-5 (1.7335)	14MoV6-3 (1.7715)	11CrMo9-10 (1.7383)	15NiCuMoNb5-6-4 (1.6368)	X10CrMoVNb9-1 (1.4903)
Pressure seal bonnet	1.0460	1.5415	1.7335	1.7715	1.7380	1.6368	1.4903
Wedge + overlay	1.0460 + Stellite	1.5415 + Stellite	1.7335 + Stellite	1.7715 + Stellite	1.7380 + Stellite	1.6368 + Stellite	1.4903 + Stellite
Seat + overlay	1.0460 + Stellite	1.5415 + Stellite	1.7335 + Stellite	1.7715 + Stellite	1.7380 + Stellite	1.6368 + Stellite	1.4903 + Stellite
Stem	X22CrMoV12-1 (1.4923)						
Stem nut	Bronze 42 3046						
Segmented ring	1.7715					1.6368	1.4903
Gasket	Pressed graphite						
Packing	Pressed graphite						

PN 160-400

DN/d	d1*	dp	L *	HC	kg operation free	Top flange	H (open)	Dk	kg with handwheel
65/50	77	Acc. to order	360	425	47, 49	F10, F14	490	400	48
80/75	90		450	550	105	F14	640	400	105
100/75	115		450	550	107	F14	640	400	106
125/110	141		500	696	244	F14	850	500	250
150/110	170		550	696	255, 262	F14, F16	850	500	254
175/125	180		650	769	317, 325	F14, F16	920	630	326
175/150	196		650	840	361, 372	F14, F16	1000	630	380
200/150	222		650	840	437, 448	F14, F16	1000	630	456
225/175	248		650	900	511, 590	F16, F25	1080	800	528
250/200	276		800	1120	850, 880	F16, F25	1300	800	840
250/225	303		900	1160	1140	F25	1350	F25	1150
300/225	325		900	1160	1170	F25	1350	F25	1180
300/250	325		1000	1330	1500, 1530	F25, F30	1540	F25, F30	1500
350/275	359		1000	1380	1700	F30	1680	F30	1700
400/300	411		1200	1550	2050	F30	1840	F30	2050
500/400	516		1350	1950	4500	F35		F35	
600/500 PN 250	619		1473	2115	6010	F40		F40	
600/550 PN 160	619		1473	2246	6440	F40		F40	

* Dimensions d1 and L can be adjusted acc. to customer request.
 Dimensions A and B depend on the particular actuator type.