

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

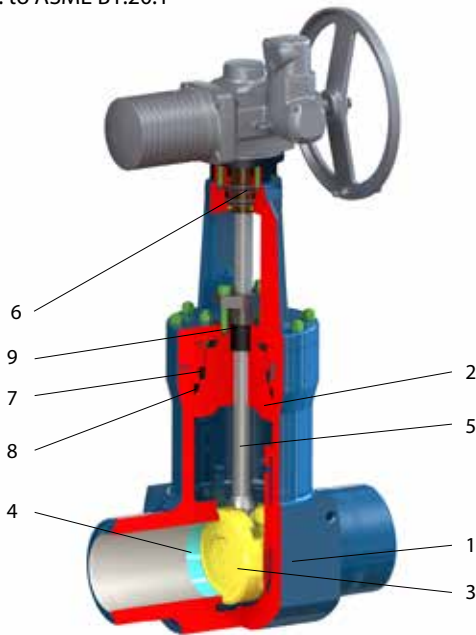
- water
- steam
- gas
- other fluids

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 ASME B16.5
- welded ends acc. to ASME B16.25
- socked welding ends acc. to ASME B16.11
- threaded ends acc. to ASME B1.20.1



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
- operability test
- other tests by agreement.

Installation

Gate valves may be installed in any position.

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

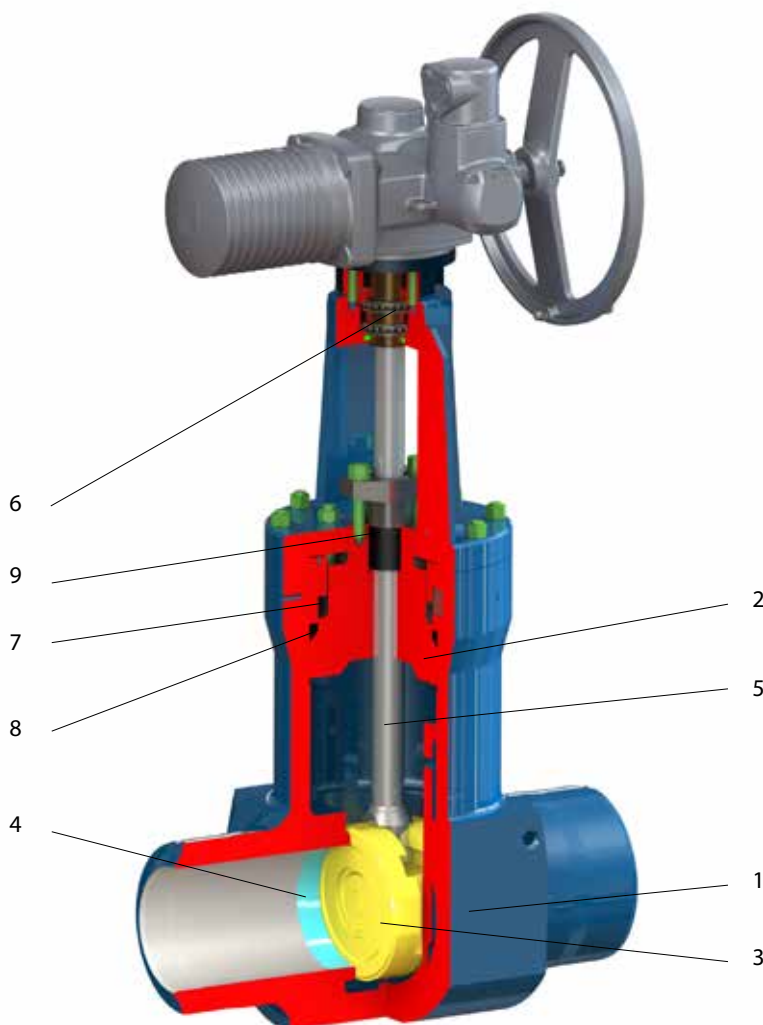
Production range

Type	Class	NPS													
		1/2	3/4	1	1 1/2	2	2 1/2	3	4	6	8	10	12	14	16
S43.1	150	.	.	.	.	.				
	300	.	.	.	.	.				
	600	.	.	.	.	.				
	800	.	.	.	.	.				
	900	.	.	.	.	.				
	1500	.	.	.	.	.				
S43.5	900	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	1500	.	.	.	.	.	.	.	.	.	.	.	.	.	.
	2500	.	.	.	.	.	.	.	.	.	.	.	.	.	.



NPS 2-16 • Class 900-2500 • Tmax 650 °C
 Body design: forged body, pressure seal bonnet
 Rising stem

Connection:  ASME B16.5 FLANGED ENDS
 ASME B16.25 WELDED ENDS



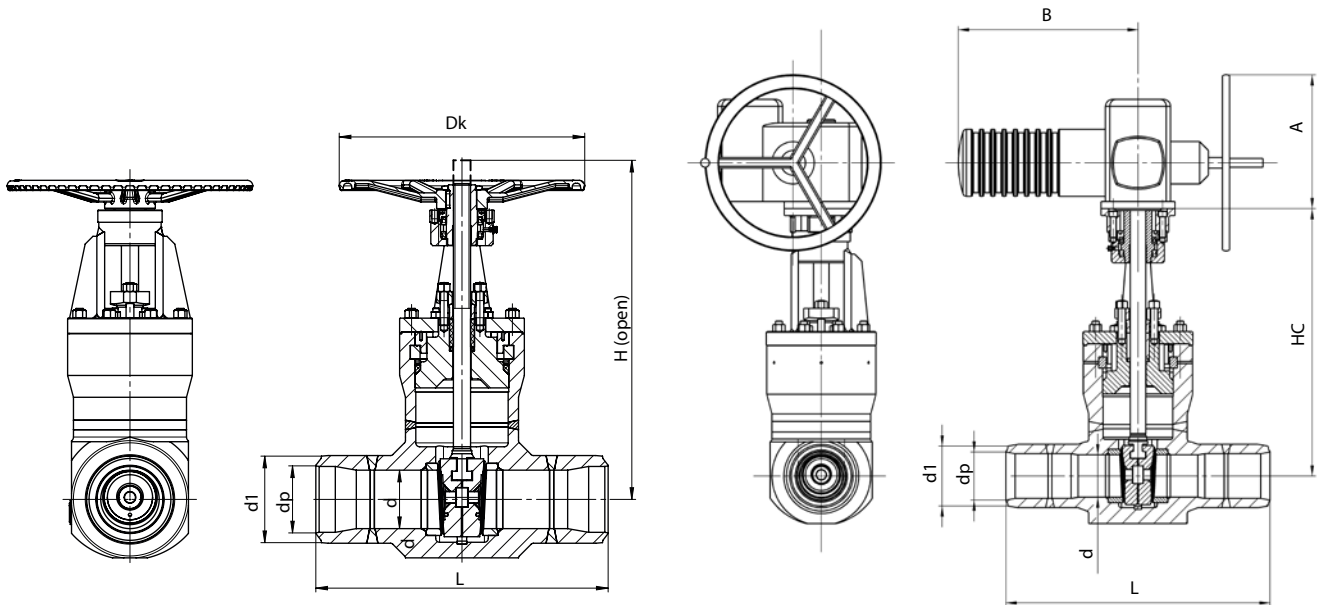
Material acc. to ASTM

Position	Component	Tmax 425 °C	Tmax 593 °C	Tmax 593 °C	Tmax 650 °C
1	Body	A105N	A182 F12	A182 F22	A182 F91
2	Pressure seal bonnet	A105	A182 F12	A182 F22	A182 F91
3	Wedge + overlay	A105 + Stellite	A182 F12 + Stellite	A182 F22 + Stellite	A182 F91 + Stellite
4	Seat + overlay	A105 + Stellite	A182 F12 + Stellite	A182 F22 + Stellite	A182 F91 + Stellite
5	Stem	X22CrMoV12-1			X20CrMoV11-1
6	Stem nut	Bronze 42 3046			
7	Segmented ring	A182 F22			A182 F91
8	Gasket	Pressed graphite			
9	Packing	Pressed graphite			



NPS 2-16 • Class 900-2500 • Tmax • 650 °C
 Body design: forged body, pressure seal bonnet

Connection: ASME B16.5 FLANGED ENDS
 ASME B16.25 WELDED ENDS



Class 900

NPS	d1 *	dp	L *	HC	kg operation free	Top flange	H (open)	Dk	kg with handwheel
2	62	Acc. to order	216	425	42	F14	490	400	43
3	91		305	550	94	F14	640	400	95
4	117		356	550	97	F14	640	400	98
6	172		508	696	252	F14	850	500	251
8	223		660	840	385	F16	1000	630	380
10	278		787	1120	850,880	F16, F25	1300	800	840
12	329		914	1160	1170	F25	1350	F25	1235
14	362		991	1420	1700	F30	1680	F30	1820
16	413		1092	1550	2020	F30	1840	F30	2140

Class 1500

NPS	d1 *	dp	L *	HC	kg operation free	Top flange	H (open)	Dk	kg with handwheel
2	62	Acc. to order	216	425	42	F14	490	400	43
3	91		305	550	94	F14	640	400	95
4	117		406	550	97	F14	640	400	98
6	172		559	696	255	F14	850	500	254
8	223		711	840	390	F16	1000	630	385
10	278		864	1120	856,886	F16, F25	1300	800	845
12	329		991	1160	1180	F25	1350	F25	1245
14	362		1067	1420	1725	F30	1680	F30	1845
16	413		1194	1550	2050	F30	1840	F30	2170

Class 2500

NPS	d1 *	dp	L *	HC	kg operation free	Top flange	H (open)	Dk	kg with handwheel
2	62	Acc. to order	279	425	44	F14	490	400	45
3	91		368	550	96	F14	640	400	97
4	117		457	550	99	F14	640	400	100
6	172		610	696	258	F14	850	500	257
8	223		762	840	392	F16	1000	630	387
10	278		914	1120	860,890	F16, F25	1300	800	850
12	329		1041	1160	1190	F25	1350	F25	1255
14	362		1118	1420	1730	F30	1680	F30	1850
16	413		1245	1550	2080	F30	1840	F30	2200

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