

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.

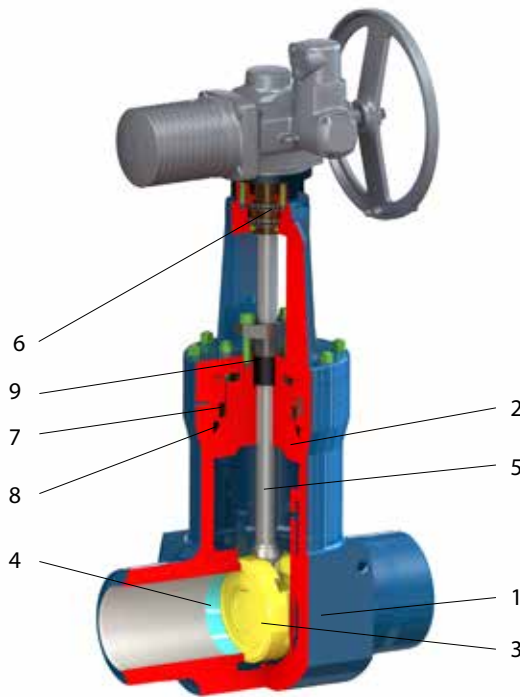
Testing

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	.	.	.	.	.	.	.	.	.	.	.	.	.	.

Application

- Conventional and nuclear power engineering where a specified shape of the performance characteristic depending on the valve travel for different flow rates is required.
- Gas industry where piping with different pressures is to be connected or where gas is to be discharged from the piping system in a defined way.
- Heat production and distribution where a defined quantity of the fluid is to be fed to the equipment in order to guarantee performance of the equipment.

Working medium

- water
- steam
- gas
- other fluids

Technical description

The control gate valves are valves used to control the flow of the service fluid which may flow in either direction. The control gate valves are not isolating valves. The design of control gate valves is based on the design of conventional gate valves. The control features of the gate valves are provided by the unique construction of the throttle plate, seats and guides. The throttle plate and the seats are equipped with special holes or grooves that overlap each other during the process of opening so that the regulating characteristic is guaranteed exactly in accordance with the customer's specification. The control gate valves made by ARMATURY Group are designed by means of sophisticated computer programs and the throttling components of each gate valve have holes of different shapes for the performance characteristic of the gate valve to be in full conformance with requirements of the customer.

Body material

- Forged alloy and carbon steel
(1.0460, 1.5415, 1.7335, 1.7715, 1.7380, 1.6368, 1.4903)

Operation

- manual (hand wheel)
 - electric actuator
 - pneumatic actuator
 - actuator located out of the valve
- Gate valves can be equipped with a locking device.

Testing

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- other tests by agreement.

Connection to the piping

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

Installation

Gate valves may be installed in any position

Advantages

- low pressure loss which brings power savings of approximately 500 MWh annually in comparison with a DN 150 PN 250 control valve.
- use of special sealing material which meets the requirements of "Nuclear Spec. D50YP12 Rev. 2", TA Luft and VDI 2440.

DN 150-600 • PN 150-600 • Tmax 600 °C

Position	Component
1	Body
2	Bonnet
3	Wedge + overlay
4	Seat + overlay
5	Stem
6	Stem nut
7	Segmented ring
8	Gasket

