

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

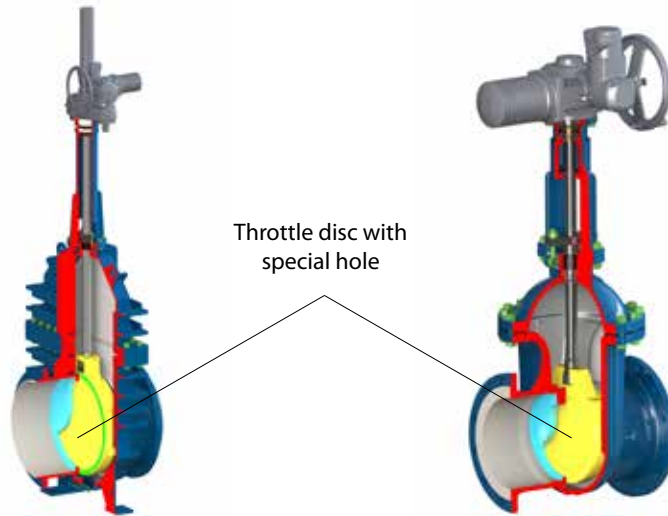
Typ	PN	DN																						
		50	65	80	100	125	150	200	250	300	350	400	500	600	700	800	900	1000	1200	1400	1600	1800	2000	
S33.1 S33.C*	16	*	*	*	*	*	*	*	*	*	*	*	*	*										
	25	*	*	*	*	*	*	*	*	*	*	*	*	*										
	40	*	*	*	*	*	*	*	*	*	*	*	*	*										
	63	*	*	*	*	*	*	*	*	*	*	*	*	*										
	100	*	*	*	*	*	*	*	*	*	*	*	*	*										
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 150-1200 • PN 2,5-100 • Tmax 450 °C
 Body design: bonnet gate valve
 Body, bonnet, wedge: cast or fully welded
 Rising stem
 Control wedge

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



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 pipings with different pressures are 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
- gases
- other fluids

Technical description

The control gate valves are valves used to control the flow of the service fluid which may flow in one 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 for the performance characteristic of the gate valve to be in full conformance with requirements of the customer. The gate valves are made as cast or fully welded gate valve. Materials and main design and face-to-face/end-to-end dimensions of gate valves are identical to cast design with type designation S33.1 and for welded design with type S33.4.

Operation

- handwheel
 - electric actuator
 - pneumatic actuator
 - remote operation
- The 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.

Production range

Type	PN	DN												
		150	200	250	300	350	400	500	600	700	800	900	1000	1200
S33.C	2,5							.	.	.	.	.	.	.
	6							.	.	.	.	.	.	.
	10							.	.	.	.	.	.	.
	16	.	.	.	.	.	.	.	.	.	.	.	.	.
	25	.	.	.	.	.	.	.	.	.	.	.	.	.
	40	.	.	.	.	.	.	.	.	.
	63	.	.	.	.	.	.	.	.	.
	100	.	.	.	.	.	.	.	.	.