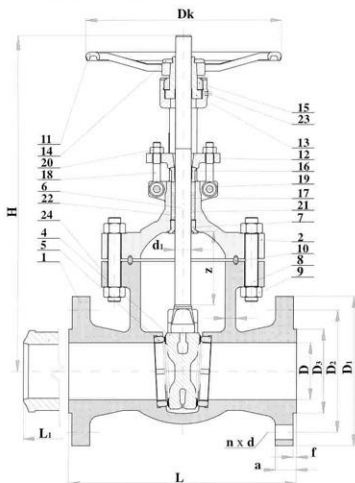


Gate valve

C 09.2 [S 09]

CLASS 1500



Connection:

Main and connecting dimensions are evident from table Below.

Materials:

Gate valves are made of the following materials:
ASTM A 216 WCB, A 352 LCC, A 352 LCB, A 217 WC6, A 217 C5,
A 217 C12. Standard gate valve trims are TRIM 1, 5, 8, 10, 11 and 12
according to API 600.

Testing:

Gate valves are pressure tested according to API 598:
shell test, backseat tightness test, closure tightness by low pressure, closure
tightness by high pressure (if requested in an order).

Application:

As a shut-off valve for: non-corrosive liquids,
water, saturated steam, oil, air, crude oil and
crude oil products. Operation parameters are
in accordance with ASME/ANSI B 16.34
standard. Application for other working
media or higher temperatures must be
consulted with the manufacturer. Standard
ambient temperature: from -13°F to +122°F
(-25°C to +50°C). Application for different
working conditions must be discussed with
the manufacturer.

Characteristics of working conditions for
materials:

Pressure-temperature ratings per ANSI
B16.34.

Technical description:

Steel gate valve design complies to API 600
and BS 1414.

Gate valves are yoke, flanged or with butt-
weld ends, with full bore, flexible wedge.
Bodies, bonnets and yokes are cast. Wedges
may be cast or forged. All wedges are guided.
Sealing seats are screwed or welded into
a body. Seats have hard-metal overlay.

The valves have rising, non-rotary stem
bolted body-bonnet joint. Standard stem
threads are Acme 2G-LH.

Gate valves are controlled by handwheel.
After agreement they can be supplied with
bevel gear box or electric servomotor. Larger
sizes 8" of gate valves provided with bearings
for easier operation.

Packing material - die formed rings of
expanded graphite and braided graphite rings.
Gate valve packing meet requirements of
Clean Air Amendment Act of 1990.

Upon special customer's requirement, gate
valves may be equipped with: drainage,
deaeration, - bypassing from interspace,
bypasses.

CLASS 1500

NPS	D	D ₁	D ₂	D ₃	L=L ₁	a	f	n	d	H	z	Dk	d ₁	kg
2"	50	216	165	92	368	39	7	8	25	477	72	250	1"	85,5
3"	70	267	203	127	470	48	7	8	32	595	92	400	1 1/4"	150,5
4"	92	311	241	157	546	54	7	8	35	630	117	450	1 3/8"	224,5
6"	137	394	317,5	215,9	705	83	7	12	38	830	183	560	1 3/4"	516
8"	178	483	393,7	270	832	92	7	12	44	990	220	710	2 3/8"	1000
10"	223	584	482,6	324	991*	108	7	12	51	1183	274	800	2 3/4"	1560
12"	264	673	571,5	381	1130*	124	7	16	54	1300	320	800	2 3/4"	2210

* - flanged type only

Installation

Yoke gate valves can be installed into pipeline in any position.

Order specification

API 600 Standard applies for ordering. It is necessary to specify in an order: type number, nominal diameter, pressure class, design (connection), wedge type, type of control, body and bonnet material, trim material, operating parameters, acceptance tests, accompanying documentation

Class	Design 1	Design 2	Design 3	Design 4	Design 5	Design 6	Design 7
	Slide bearing	Antifriction bearing	Antifriction bearing	Flooded seal	Nonflooded seal	Yoke bonnet	Bonnet - yoke
150	2" - 12"	14" and larger	36"	**	basic design	2" - 12"	14" and larger
300	2" 10"	12" and larger	30"	basic design	**	2" 10"	12" and larger
600	2" 6"	8" 12"	6", 14" and larger	basic design	**	2" 6"	8" and larger
900							
1500	2" - 6"	6", 8" and larger	6", 8" and larger	basic design	**	2" - 6"	8" and larger

Sealing materials (X)

Position	Name	Class	Body material
			WCB LCC WC6 C5 C12
10	Cover sealing	150	Flat graphite gasket
		300	Spiral wound graphite
		600, 900	RTJ rings
		1500	soft lowcarbon steel
			AISI 321
21	Gland packing	150 - 1500	Braided graphite cord
22		150 - 1500	Die formed graphite rings

** After consultation with the manufacturer

(X) or according to customer's requirement

Basic design standards

Basic design	API 600
Face-to-face dimensions	ASME B 16.10
Flanges	ASME B 16.5
	30" - 36" MSS SP44 (API 605)
Butt-weld ends dimensions	ASME B 16.25
Testing	API 598
Pressure-temperature ratings	ASME B 16.34

TRIM - materials according to API 600

Pos.	Name	TRIM				
		1	5	8	11	12
4a	Wedge sealing surface	13 Cr overlay	Stellite 6	13 Cr overlay	Monel overlay	316 overlay
5a	Seat sealing surface	13 Cr overlay	Stellite 6	Stellite 6	Stellite 6	Stellite 6
6	Stem	A 276 410 T	A 276 410 T	A 276 410 T	Monel	A 182 F 316
7	Backseat insert - variants	A 182 F 6a Cl.4	A 182 F 6a Cl.4	A 182 F 6a Cl.4	Monel	A 182 F 316
		A 217 CA 15 *	A 217 CA 15 *	A 217 CA 15 *		A 351 CF8 M
16	Stuffing box bushing - variants	A 182 F 6a	A 182 F 6a	A 182 F 6a	Monel	A 182 F 316
		A 217 CA 15	A 217 CA 15	A 217 CA 15		A 351 CF8 M
17	Lantern - variants	A 182 F 6a	A 182 F 6a	A 182 F 6a	Monel	A 182 F 316
		A 217 CA 15	A 217 CA 15	A 217 CA 15		A 351 CF8 M

* min. hardness 250 HB

Standard material specification (*)

Pos.	Name	WCB	LCC	WC6	C5	C12
	TRIM-Nr.	1, 5, 8, 11, 12	12	5, 8	5	5
1	Body	A 216 WCB	A 352 LCC	A 217 WC6	A 217 C5	A 217 C12
2	Bonnet	A 216 WCB	A 352 LCC	A 217 WC6	A 217 C5	A 217 C12
4	Disc - variants	A 182 F6a, A 182 F316	A 182 F 316	A 182 F6a	A 182 F9 + weld deposit	A 182 F9 + weld deposit
		A 216 WCB + weld deposit	A 352 LCC + weld deposit	A 182 F9 + weld deposit	A 217 C5 + weld deposit	A 217 C12 + weld deposit
		A 105 + weld deposit		A 217 WC6 + weld deposit		
5	Seat	A 106 B + weld deposit	A 350 LF2 mod. + weld deposit	A 182 F5 + weld deposit	A 182 F5 + weld deposit	A 182 F321+ weld deposit
8	Bolt -variants	A 193 B7	A 320 L7M	A 193 B7	A 193 B7	A 193 B7
		A 193 B7M				
9	Nut -variants	A 194 2H	A 194 7M	A 194 2H	A 194 2H	A 194 2H
		A 194 2H M				
11	Handwheel			ASTM A 47, A 536		
12	Gland flange			A 105 [CSN 41 1523]		
13	Stem nut			A 439 D2 (Ni - Resist)		
14	Handwheel nut			ASTM A 47		
15	Yoke nut			carbon steel [CSN 41 1523]		
18	Eyebolt			A 307 Gr B		
19	Pin			carbon steel [CSN 41 1523]		
20	Nut			A 194 2H		
23	Grease fitting			standart		
24	Name plate			AISI 304		
31	Yoke			A 216 WCB		

* - flanged type only