CS GATE VALVE FLANGE TYPE CL150

OS&Y Gate Valve · Carbon Steel A216 WCB · Bolted Bonnet · Flanged ASME Class 150

BRAND: SW FLOW CONTROLS | SKU: p-0019 | SIZE 3/4" TO 6" | CLASS 150 / 19.6 BAR



FIG. 1 | CS GATE VALVE, FLANGED CLASS 150, OS&Y

PRODUCT OVERVIEW

The SWBM CS Gate Valve Flange Type CL150 is a full bore isolating valve for flanged process and utility pipelines. When fully open the flexible wedge clears the bore completely, giving a straight through flow path with minimal pressure loss, and when closed it seals against two Stellite faced seat rings for tight shut-off.

The body and bonnet are cast carbon steel to ASTM A216 WCB, with an outside screw and yoke (OS&Y), rising stem and non-rising handwheel, so stem position shows whether the valve is open or closed. A back seat allows the gland to be repacked under pressure. Raised face flanges are drilled to ASME B16.5 Class 150.

Valve type	**Gate, flexible wedge, OS&Y**
Operation	**Manual, handwheel**
Body material	**Carbon steel, ASTM A216 WCB**
End connection	**Flanged RF, ASME B16.5 Class 150**
Pressure rating	**ASME Class 150**
Size range	**3/4" to 6" (DN20 to DN150)**

TECHNICAL SPECIFICATION

Design standard	**API 600 / ASME B16.34**	Testing	**API 598**
Face to face	**ASME B16.10**	Shell test	**29.4 bar (1.5 x rating)**
Flange drilling	**ASME B16.5 Class 150**	Seat test	**21.6 bar (1.1 x rating)**
Flange face	**Raised face**	Temperature range	**-29°C to +425°C**
Stem	**Rising, outside screw and yoke**	Bonnet	**Bolted, with back seat**
Trim	**API trim 8, 13Cr / Stellite**	Port	**Full bore**

BILL OF MATERIALS

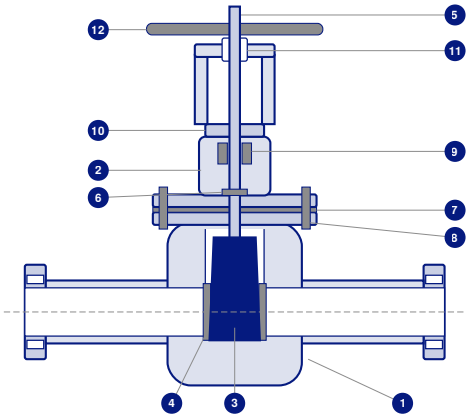


FIG. 2 | SECTIONAL ARRANGEMENT

#	COMPONENT	MATERIAL
1	Body	ASTM A216 WCB
2	Bonnet	ASTM A216 WCB
3	Wedge (flexible)	ASTM A217 CA15 (13Cr)
4	Seat ring	ASTM A105, Stellite faced
5	Stem	ASTM A479 410
6	Back seat ring	ASTM A479 410
7	Bonnet gasket	Spiral wound, 304 + graphite
8	Bonnet bolt / nut	ASTM A193 B7 / A194 2H
9	Gland packing	Graphite
10	Gland / gland flange	ASTM A479 410 / A105
11	Yoke sleeve (stem nut)	ASTM A439 D2C
12	Handwheel	ASTM A536 ductile iron

Standard trim is 13Cr wedge and stem with Stellite faced seat rings. Gear operator, bypass, RTJ and butt weld ends can be offered against enquiry.

DIMENSIONS AND WEIGHTS

SIZE	DN	L (MM)	BORE (MM)	H (MM)	W (MM)	D (MM)	PCD (MM)	N X ØD	WEIGHT (KG)
3/4"	20	117	19	210	120	99	69.9	4 x 16	5
1"	25	127	25	240	140	108	79.4	4 x 16	7
2"	50	178	51	400	200	152	120.7	4 x 19	19
2.1/2"	65	191	64	435	200	178	139.7	4 x 19	25
3"	80	203	76	515	250	190	152.4	4 x 19	33.5
4"	100	229	102	595	280	229	190.5	8 x 19	48.5
5"	125	254	127	725	280	254	215.9	8 x 22	60.5
6"	150	267	152	780	300	279	241.3	8 x 22	77

L = face to face length (RF) to ASME B16.10, Bore = internal bore, H = centreline to top of handwheel, valve open, W = handwheel diameter, D = flange outside diameter, PCD = bolt circle diameter, n x Ød = number and diameter of bolt holes, Class 150. Dimensions and weights are nominal and are given for guidance only. Certified drawings for the supplied make and size are issued on request. Larger sizes can be offered against enquiry.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	p-0019
Size	3/4", 1", 2", 2.1/2", 3", 4", 5", 6"
Flange	Class 150 RF, ASME B16.5. RTJ on request
Operation	Handwheel standard. Gear operator on request
Order example	**p-0019 / 4" / CL150 RF / HANDWHEEL**

Stock held in Dubai for fast despatch across the UAE and GCC. Contact our sales desk for pricing, availability, project quantities and certification requirements.

PRESSURE AND TEMPERATURE

-29°C to +38°C	**19.6 bar (285 psi)**
+100°C	**17.7 bar**
+200°C	**13.8 bar**
+425°C	**5.5 bar**

Pressure and temperature ratings for ASTM A216 WCB to ASME B16.34, standard class. Do not use above +425°C for prolonged service due to graphitisation of carbon steel.

TYPICAL APPLICATIONS

- Oil and gas production and transfer lines
- Refinery and petrochemical process piping
- Steam, condensate and boiler feed systems
- Power plant and utility services
- Water treatment and pumping stations
- General industrial and marine piping

COMPLIANCE AND QUALITY

- Design to API 600 and ASME B16.34
- Face to face to ASME B16.10
- Flanges to ASME B16.5 Class 150, raised face
- Inspection and testing to API 598
- 100% shell, back seat and seat tested prior to despatch
- Marking to MSS SP-25
- Material test certificate EN 10204 3.1 on request

INSTALLATION AND OPERATION

- Flush the line thoroughly before installation to clear debris and weld slag
- Install with the valve closed. The valve can be installed in either flow direction
- Install with the stem vertical and the handwheel uppermost where possible
- Tighten flange bolts evenly in a crosswise sequence
- Use for isolation only, fully open or fully closed, not for throttling
- Open fully against the back seat, then back off a quarter turn. Keep the stem thread greased

COMPANY

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