



CS GATE VALVE FLANGE TYPE CL300

OS&Y Gate Valve · Carbon Steel A216 WCB · Bolted Bonnet · Flanged ASME Class 300

BRAND: SW FLOW CONTROLS

SKU: p-0020

SIZE 2" TO 6"

CLASS 300 / 51.1 BAR



FIG. 1 | CS GATE VALVE, FLANGED CLASS 300, OS&Y

PRODUCT OVERVIEW

The SWBM CS Gate Valve Flange Type CL300 is a full bore isolating valve for higher pressure flanged 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 300.

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 300
Pressure rating	ASME Class 300
Size range	2" to 6" (DN50 to DN150)

TECHNICAL SPECIFICATION

Design standard	API 600 / ASME B16.34	Testing	API 598
Face to face	ASME B16.10	Shell test	76.6 bar (1.5 x rating)
Flange drilling	ASME B16.5 Class 300	Seat test	56.2 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



PRODUCT DATA SHEET

CS GATE VALVE FLANGE TYPE CL300

Ref. p-0020 | Rev. 01

BILL OF MATERIALS

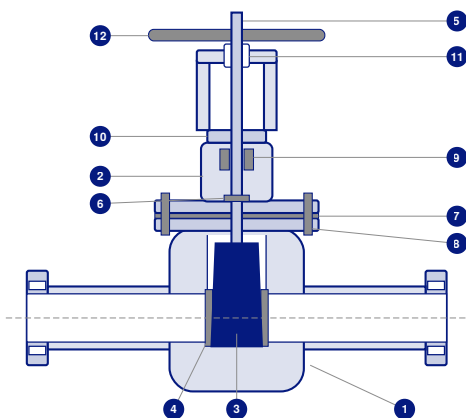


FIG. 2 | SECTIONAL ARRANGEMENT

#	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)
2"	50	216	51	420	200	165	127.0	8 x 19	24
3"	80	283	76	537	250	210	168.1	8 x 22	43
4"	100	305	102	619	280	254	200.2	8 x 22	63
6"	150	403	152	806	350	318	269.7	12 x 22	140

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 300. Dimensions and weights are nominal and are given for guidance only. Certified drawings for the supplied make and size are issued on request. Other sizes can be offered against enquiry.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	p-0020
Size	2", 3", 4", 6"
Flange	Class 300 RF, ASME B16.5. RTJ on request
Operation	Handwheel standard. Gear operator on request
Order example	p-0020 / 6" / CL300 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.



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PRESSURE AND TEMPERATURE

-29°C to +38°C	51.1 bar (740 psi)
+100°C	46.6 bar
+200°C	43.8 bar
+425°C	28.8 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 300, 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

Sunel Wala Building Materials
Trading Co. LLC (SWBM)
Dubai, United Arab Emirates

SALES ENQUIRIES

info@swbm-fittings.com
Tel: +971 4 238 5652
Mobile / WhatsApp: +971 50 748 1772

ONLINE

www.swbm-fittings.com
Brand: SW Flow Controls

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