CS BALL VALVE FLANGE TYPE CL300

2-Piece Full Bore Ball Valve · Carbon Steel A216 WCB · Flanged ASME Class 300 · Lever Operated

BRAND: SW FLOW CONTROLS | SKU: p-0016 | SIZE 2" TO 6" | CLASS 300 / 51.1 BAR



FIG. 1 | CS BALL VALVE, FLANGED CLASS 300, WITH LEVER

PRODUCT OVERVIEW

The SWBM CS Ball Valve Flange Type CL300 is a quarter-turn, 2-piece full bore ball valve for on and off isolation in higher pressure flanged pipelines. The body and end cap are cast carbon steel to ASTM A216 WCB, giving a strong, pressure retaining shell for water, oil, gas and general industrial service.

A floating stainless steel ball seals against reinforced PTFE seats for tight shut-off with low operating torque. The full bore gives minimal pressure drop and allows pigging. Raised face flanges are drilled to ASME B16.5 Class 300, and a top mounting pad allows gear or actuator fitting.

Valve type	**2-piece floating ball, full bore**
Operation	**Manual, 90° quarter-turn lever**
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	**ASME B16.34**
Face to face	**ASME B16.10**
Flange drilling	**ASME B16.5 Class 300**
Flange face	**Raised face**
Port	**Full bore**
Actuator mounting	**ISO 5211 top pad**

Testing	**API 598**
Shell test	**76.6 bar (1.5 x rating)**
Seat test	**56.2 bar (1.1 x rating)**
Low pressure air seat test	**5.5 bar**
Temperature range	**-29°C to +180°C**
Seat	**Reinforced PTFE**

BILL OF MATERIALS

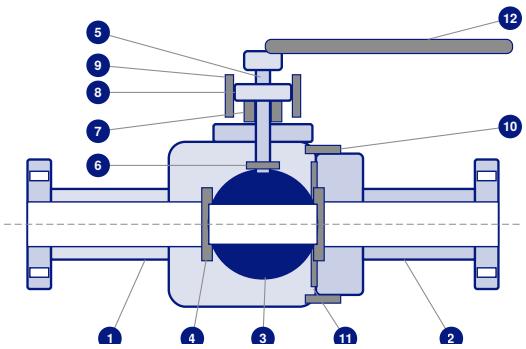


FIG. 2 | SECTIONAL ARRANGEMENT

#	COMPONENT	MATERIAL
1	Body	ASTM A216 WCB
2	End cap	ASTM A216 WCB
3	Ball	Stainless steel, 201
4	Ball seat	Reinforced PTFE (15% filled)
5	Stem	Stainless steel, 2Cr13 (420)
6	Thrust washer	PTFE
7	Stem packing	PTFE
8	Gland	ASTM A216 WCB
9	Gland bolt	ASTM A193 B7
10	Body bolt	ASTM A193 B7
11	Body gasket	PTFE
12	Lever handle	Cast steel

Stainless steel ball, metal seats, gear operator and actuator options available on request. Seat material can be changed to suit the media and temperature.

DIMENSIONS AND WEIGHTS

SIZE	DN	BORE (MM)	L (MM)	D (MM)	PCD (MM)	BOLT HOLES N X ØD
2"	50	49	216	165	127.0	8 x 19
2.1/2"	65	64	241	190	149.4	8 x 22
3"	80	75	283	210	168.1	8 x 22
4"	100	98	305	254	200.2	8 x 22
5"	125	127	381	279	235.0	8 x 22
6"	150	148	403	318	269.7	12 x 22

L = face to face length to ASME B16.10, D = flange outside diameter, PCD = bolt circle diameter, n x Ød = number and diameter of bolt holes, to ASME B16.5 Class 300. Dimensions are nominal and are given for guidance only. Heights, weights and certified drawings for the supplied make and size are issued on request. Sizes 1/2" to 1.1/2" and 8" can be offered against enquiry.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	p-0016
Size	2", 2.1/2", 3", 4", 5", 6"
Flange	Class 300 RF, ASME B16.5
Operation	Lever standard. Gear operator on request
Order example	**p-0016 / 3" / CL300 RF / LEVER**

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	**51.1 bar (740 psi)**
+100°C	**46.6 bar**
+150°C	**45.1 bar**
+180°C	**Seat limited, consult SWBM**

Body ratings for ASTM A216 WCB to ASME B16.34. The PTFE seats limit service temperature: do not exceed +180°C, and confirm pressure above +65°C with SWBM as seat rating governs.

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 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 and seat tested prior to despatch
- Blow-out proof stem design
- Material test certificate EN 10204 3.1 on request

INSTALLATION AND OPERATION

- Flush the line thoroughly before installation to clear weld slag and debris
- Install with the valve in the fully open position
- The valve is open when the lever is in line with the pipe, closed at 90°
- Tighten flange bolts evenly in a crosswise sequence
- Use for full open or full closed service only, not for throttling
- Re-tighten gland bolts evenly if minor stem leakage appears

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