CS CHECK VALVE FLANGE TYPE CL300

Swing Check Valve · Carbon Steel A216 WCB · Bolted Cover · Flanged ASME Class 300

BRAND: SW FLOW CONTROLS | SKU: p-0018 | SIZE 2" TO 6" | CLASS 300 / 51.1 BAR



FIG. 1 | CS SWING CHECK VALVE, FLANGED CLASS 300

PRODUCT OVERVIEW

The SWBM CS Check Valve Flange Type CL300 is a swing type non-return valve for preventing reverse flow in higher pressure flanged pipelines. A hinged disc swings open under forward flow and returns to its seat under gravity and back pressure when flow stops or reverses, protecting pumps, compressors and equipment.

The body and cover are cast carbon steel to ASTM A216 WCB. The disc and Stellite faced seat ring give a hard, wear resistant seal, and the bolted cover gives access to the disc and hinge for in-line inspection. Raised face flanges are drilled to ASME B16.5 Class 300.

Valve type	**Swing check, bolted cover**
Operation	**Automatic, flow actuated**
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**	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**
Seating	**Metal to metal**	Installation	**Horizontal, or vertical upward flow**
Trim	**13Cr / Stellite**	Cover	**Bolted**

BILL OF MATERIALS

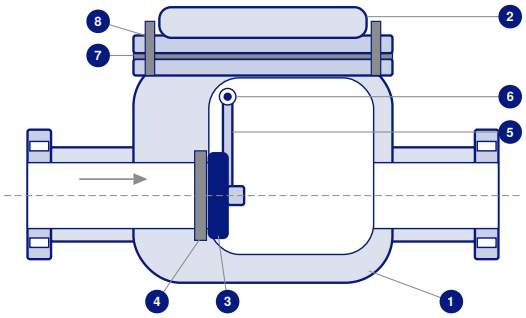


FIG. 2 | SECTIONAL ARRANGEMENT, FLOW LEFT TO RIGHT

#	COMPONENT	MATERIAL
1	Body	ASTM A216 WCB
2	Cover	ASTM A216 WCB
3	Disc	ASTM A216 WCB, 13Cr faced
4	Seat ring	ASTM A105, Stellite faced
5	Hinge	ASTM A216 WCB
6	Hinge pin	ASTM A576 1020
7	Cover gasket	Spiral wound, 304 + graphite
8	Cover bolt / nut	ASTM A193 B7 / A194 2H

RTJ and butt weld ends, and alternative trims for sour or high temperature service, can be offered against enquiry.

DIMENSIONS AND WEIGHTS

SIZE	DN	L RF (MM)	L RTJ (MM)	BORE (MM)	H (MM)	D (MM)	PCD (MM)	N X ØD	WEIGHT (KG)
2"	50	267	283	51	144	165	127.0	8 x 19	18
3"	80	318	333	76	210	210	168.1	8 x 22	35
4"	100	356	371	102	260	254	200.2	8 x 22	41
6"	150	445	460	152	326	318	269.7	12 x 22	71

L = face to face length (RF or RTJ) to ASME B16.10, Bore = internal bore, H = centreline to top of cover, 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 from 2.1/2" to 16" can be offered against enquiry.

ORDERING INFORMATION

FIELD	OPTIONS
Product code	p-0018
Size	2", 3", 4", 6"
Flange	Class 300 RF, ASME B16.5. RTJ on request
Trim	13Cr / Stellite standard
Order example	**p-0018 / 4" / CL300 RF / WCB**

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**
+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 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
- Bolted cover for in-line inspection
- 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 flow arrow on the body pointing in the direction of flow
- Install in horizontal lines with the cover uppermost, or in vertical lines with upward flow only
- Allow a straight run of pipe between the valve and any pump, elbow or reducer where possible
- Tighten flange bolts evenly in a crosswise sequence
- Inspect the disc, seat and hinge pin periodically through the bolted cover

COMPANY

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