



Swing Check Valves Type Pressure Seal

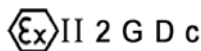
Class 900 DN 50-400 (2" – 16")

Carbon, Alloy and Stainless Steel



Fig. VR900PS

Design:
ASME B16.34

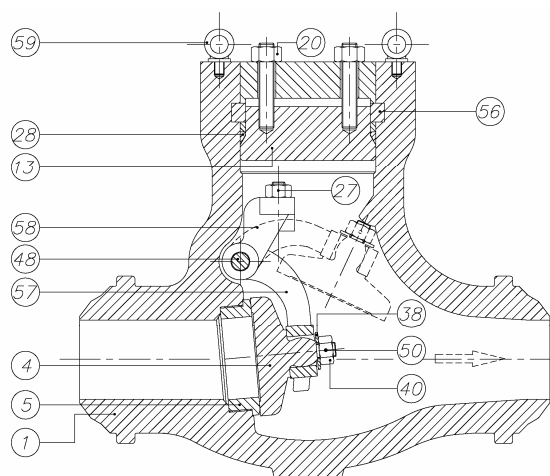




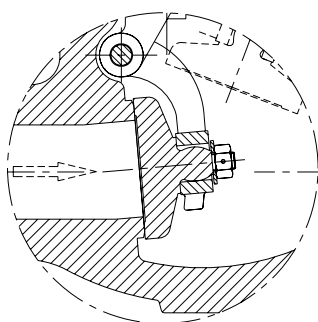
Swing Check Valves Class 900

Type Pressure Seal

Parts and materials



Stainless Steel Construction



Trim Material

API 600 Trim No.	Nominal Trim	Stem / Backseat ⁽¹⁾	Seating Surface Body / Wedge
1	F6	13Cr	13Cr
2	304	18Cr-8Ni	18Cr-8Ni
3	F310	25Cr-20Ni	25Cr-20Ni
4	Hard F6	13Cr	Hard 13Cr
5	Hardfaced	13Cr	Co-Cr A (2)
5A	Hardfaced	13Cr	Ni-Cr
6	F6 and Cu-Ni	13Cr	13Cr and Cu-Ni
7	F6 and Hard F6	13Cr	13Cr and Hard 13Cr
8	F6 and Hardfaced	13Cr	13Cr and Co-Cr A (2)
8A	F6 and Hardfaced	13Cr	13Cr and Ni-Cr
9	Monel	Ni-Cu Alloy	Ni-Cu Alloy
10	316	18Cr-8Ni-Mo	18Cr-8Ni-Mo
11	Monel and Hardfaced	Ni-Cu Alloy	Ni-Cu Alloy and Trim 5 or 5A
12	316 and Hardfaced	18Cr-8Ni-Mo	18Cr-8Ni-Mo and Trim 5 or 5A
13	Alloy 20	19Cr-29Ni	19Cr-29Ni
14	Alloy 20 and Hardfaced	19Cr-29Ni	19Cr-29Ni and Trim 5 or 5A
15	Hardfaced	18Cr-8Ni	Co-Cr A (2)
16	Hardfaced	18Cr-8Ni-Mo	Co-Cr A (2)
17	Hardfaced	18Cr-10Ni-Cb	Co-Cr A (2)
18	Hardfaced	19Cr-29Ni	Co-Cr A (2)

(1) ...and small internal parts that normally contact the service fluid

(2) Trademark material Stellite 6

Item	Description	Material of construction**			
		Carbon Steel	Carbon Steel (Low Temp.)	Alloy Steel	Stainless Steel
1	Body	A 216 Gr.WCB	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
4	Disc	A 105 + Stellite	A 352 Gr.LCB + Stellite	A 182 Gr.F6a + Stellite	A 182 Gr.F316 + Stellite
5	Seat Ring	A 105 + Stellite	A 182 Gr.F304 + Stellite	A 182 Gr.F6a + Stellite	A 182 Gr.F316 + Stellite
13	Cover	A 216 Gr.WCB / A 515 Gr.70	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
20	Cover Bolt & Nut	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H	A 193 Gr.B7 / A 194 Gr.2H(3)
27	Bracket Stud & Nut	A 193 Gr.B8 / A 194 Gr.8	A 193 Gr.B8 / A 194 Gr.8	A 193 Gr.B8 / A 194 Gr.8	A 193 Gr.B8M / A 194 Gr.8M
28	Gasket	Graphite	Graphite	Graphite	Graphite
38	Washer	AISI 410	AISI 304	AISI 410	AISI 316
40	Disc Nut	AISI 304	AISI 304	AISI 304	AISI 316
48	Hinge Pin *	A 182 Gr.F6a	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
50	Split Pin	AISI 304	AISI 304	AISI 304	AISI 316
56	Segmental Ring	A 105	A 182 Gr.F304	A 182 Gr.F6a	A 182 Gr.F316
57	Hinge	A 216 Gr.WCB / A 515 Gr.70	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
58	Hinge Bracket	A 216 Gr.WCB / A 515 Gr.70	A 352 Gr.LCB	A 217 Gr.C5	A 351 Gr.CF8M
59	Lifting Hook	A 105	A 105	A 105	A 105

* It's also manufactured with Hinge Pin passing through Body with Plug

(3) Zinc coating

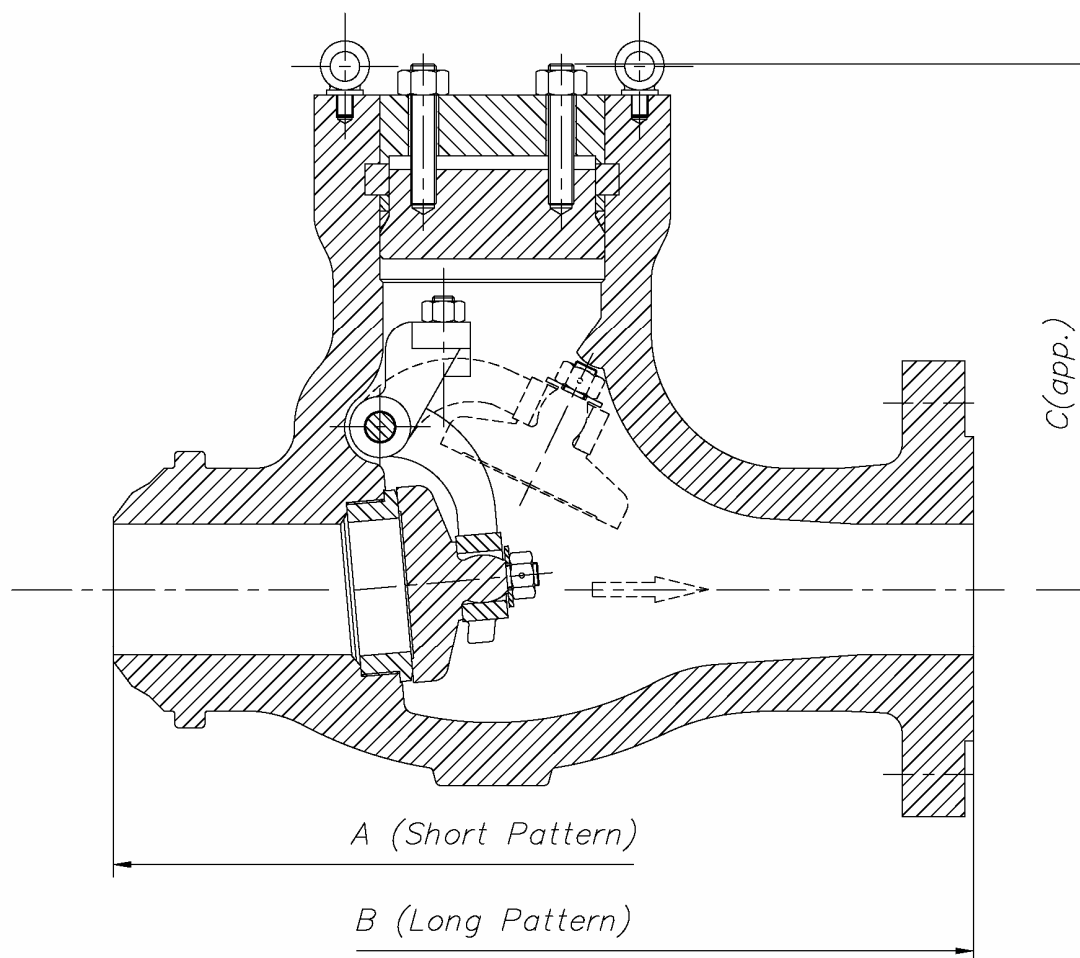
* Standard constructions with Trim 5, other options are available



Swing Check Valves Class 900

Type Pressure Seal

Dimensions



DN	A	B	C	WEIGHT
50 (2")	216	368	255	40
65 (2½")	254	419	245	55
80 (3")	305	381	295	70
100 (4")	356	457	335	95
125 (5")	432	559	395	125
150 (6")	508	610	435	195
200 (8")	660	737	530	290
250 (10")	787	838	605	425
300 (12")	914	965	700	680
350 (14")	991	1029	805	975
400 (16")	1092	1130	925	1405

(*) Dimensions in mm and weight in kg
For other sizes consult to the technical department.



Swing Check Valves Class 900

Type Pressure Seal

General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS	Fig. VR900PS			
DESIGN STANDARDS				
Valves design	ASME B16.34			
End to End Dimensions	ASME B16.10 & ISO 5752			
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	BS 3293	MSS SP-44	
Buttweld Dimensions	ASME B16.25			
Visual Inspection	MSS SP- 55			
Marking	MSS SP-25 & ISO 5209			
TESTS AND CERTIFICATES				
Pressure testing	API 598 & ISO 5208	EN 12266-1	MSS SP-61	
Other	ATEX, CE			

Cv Values in U.S. Gallons/min.

DN	Cv	DN	Cv
50 (2")	100	200 (8")	1500
65 (2½")	170	250 (10")	2200
80 (3")	240	300 (12")	2900
100 (4")	490	350 (14")	3700
125 (5")	670	400 (16")	6950
150 (6")	850		

Pressure-Temperature (STANDARD CLASS ACCORDING TO ASME B16.34)

Temp °C	MATERIAL			
	A216 WCB Bar	A352 LCB Bar	A217 C5 Bar	A351 CF8M (**) Bar
-29 to 38	153,0	143,7	155,0	148,8
95	139,5	135,7	154,0	128,2
150	135,7	131,9	148,1	115,8
205	130,9	127,5	145,7	106,1
260	123,7	120,2	137,5	98,9
315	113,0	110,2	125,1	93,4
345	110,9	108,2	121,6	91,6
375	110,2		117,5	89,9
400	104,0		109,2	88,2
425	85,1		105,1	87,2
450	55,5		99,9	86,5
485	35,5		76,5	85,8
510	21,4		56,8	79,9
540	10,7		41,0	72,3
565			29,6 *	71,0 *
595			20,7 *	63,0 *
620			12,7 *	48,9 *
650			7,2 *	38,2 *
675				30,3 *
705				24,1 *
735				20,0 *
760				15,5 *
790				12,1 *
815				8,6 *

* FOR WELD END VALVES ONLY. FLANGED END RATINGS TERMINATE AT 540°C

** A351 CF8M at temperatures over 538°C (1000°F) to be used only if Carbon contents is 0,04% or higher.