



**Swing Check Valves Type Pressure Seal**  
**Class 2500 DN 50-300 (2" – 12")**  
 Carbon, Alloy and Stainless Steel



# Fig. VR2500PS

**Design:**  
**BS 1868 & API 6D**  
**ASME B16.34**

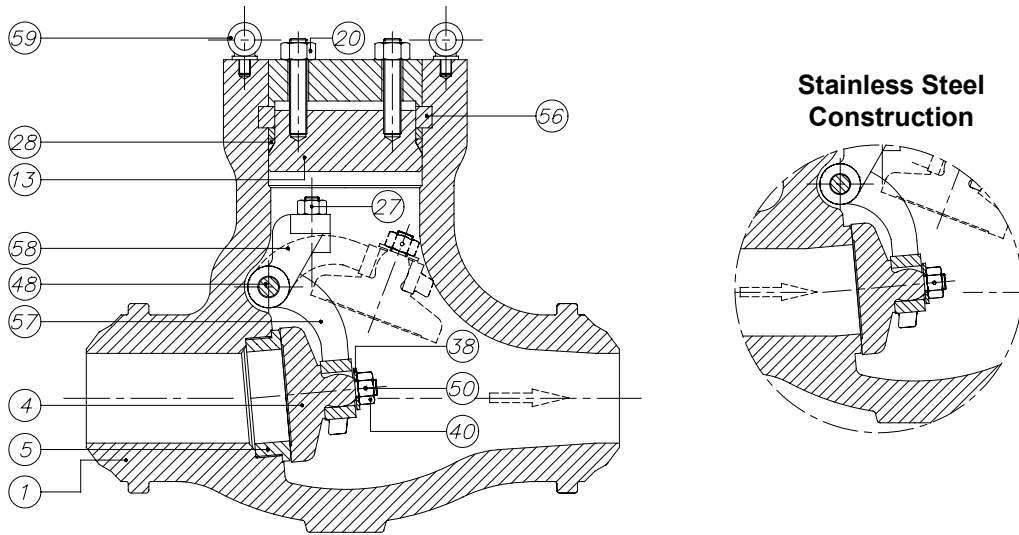




# Swing Check Valves Class 2500

## Type Pressure Seal

### Parts and materials



#### Trim Material

API 600 Trim No.	Stem / Backseat	Seating Surface Body / Wedge
1	13% Cr	13% Cr
2	SS 304	SS 304
3	SS310	SS310
4	13% Cr	13% Cr (Hard)
5 or 5A	13% Cr	HF
6	13% Cr	13% Cr / Cu Ni
7	13% Cr	13% Cr / 13% Cr (Hard)
8 or 8A	13% Cr	HF / 13% Cr
9	Monel	Monel
10	SS 316	SS 316
11 or 11A	Monel	HF / Monel
12 or 12A	SS 316	HF / SS 316
13	Alloy 20	Alloy 20
14 or 14A	Alloy 20	HF / Alloy 20

**HF: Hard Facing using Co Cr welding alloy (Stellite)**

Item	Description	Material			
		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	A182 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
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	A182 Gr.F304	A182 Gr.F304	A182 Gr.F304	A182 Gr.F316
38	Washer	AISI 410	AISI 304	AISI 410	AISI 316
40	Disc Nut	AISI 304	AISI 304	AISI 304	AISI 316
48	Hinge Pin *	A182 Gr.F6a	A182 Gr.F304	A182 Gr.F6a	A 182 Gr.F316
50	Split Pin	AISI 304	AISI 304	AISI 304	AISI 316
56	Segmental Ring	A 105	A182 Gr.F304	A182 Gr.F6a	A182 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	A105	A105	A105	A105

Item 5 only in Carbon Steel and Alloy Steel construction

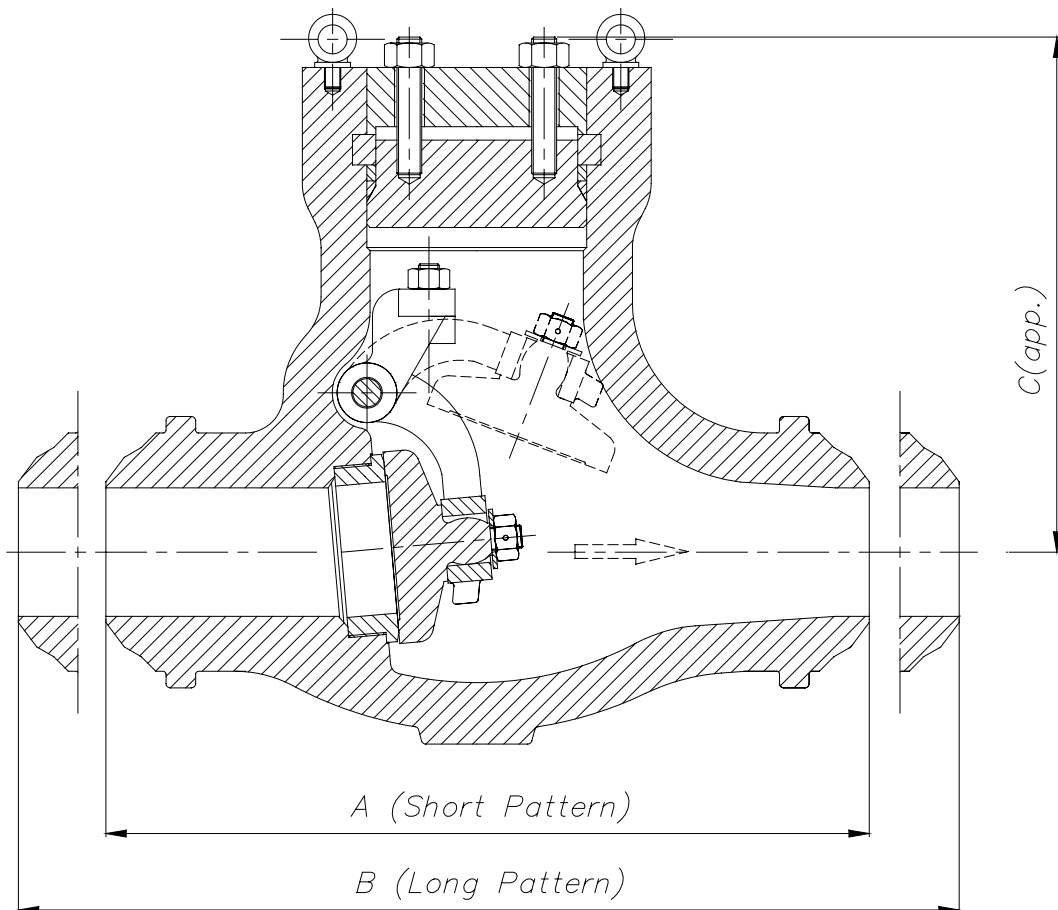
\* It's also manufactured with Hinge Pin passing through Body with Plug



# Swing Check Valves Class 2500

## Type Pressure Seal

### Dimensions



DN	A	B	C	WEIGHT
50 (2")	279	451	330	60
65 (2½")	330	508	350	75
80 (3")	368	578	368	86
100 (4")	457	673	432	150
125 (5")	533	794	470	238
150 (6")	610	914	508	292
200 (8")	762	1022	762	480
250 (10")	914	1270	940	906
300 (12")	1041	1422	1005	1600

(\*) Dimensions in mm and weight in kg.



# Swing Check Valves Class 2500

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### General Characteristics, Cv, P&T Rating

GENERAL CHARACTERISTICS		Fig. VR2500PS			
<b>DESIGN STANDARDS</b>					
Valves design	BS 1868 & API 6D	ASME B16.34	MSS SP- 42		
End to End Dimensions	ASME B16.10 & ISO 5752				
Flanged Dimensions	ASME B16.5 & ISO 7005-1 Part. 1	ASME B16.47	BS 3293	MSS SP-44	
Buttweld Dimensions	ASME B16.25				
Visual Inspection	MSS SP- 55				
Marking	MSS SP-25 & ISO 5209				
<b>TESTS AND CERTIFICATES</b>					
Pressure testing	API 598 & ISO 5208	BS 6755 Part. 1	MSS SP-61		

#### Cv Values in U.S. Gallons/min.

DN	Cv	DN	Cv
50 (2")	60	200 (8")	850
65 (2½")	110	250 (10")	1600
80 (3")	150	300 (12")	2050
100 (4")	200		
125 (5")	330		
150 (6")	450		

#### 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	425,1	398,6	430,6	413,4
95	387,6	376,9	427,5	355,5
150	376,9	366,2	411,0	321,1
205	363,8	354,5	405,1	294,9
260	343,8	334,2	381,7	274,2
315	314,2	305,9	347,3	259,1
345	308,3	300,1	338,0	254,9
375	305,9		325,9	249,4
400	289,4		303,2	245,3
425	236,3		291,4	242,5
450	153,6		277,7	239,8
485	98,5		212,6	238,4
510	59,3		157,4	221,9
540	29,6		114,0	200,8
565			82,7 *	197,4 *
595			57,2 *	175,4 *
620			35,5 *	135,7 *
650			19,6 *	106,5 *
675				84,7 *
705				66,8 *
735				55,1 *
760				43,4 *
790				33,4 *
815				23,8 *

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