

# CAST STEEL SWING CHECK VALVE SERIES



## BS1868 BOLTED COVER SWING CHECK VALVE

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### Reliable Seat Seal

Design and Manufacture: Cast steel check valve to BS 1868  
ASME B16.34 and API 6D;  
Forged steel check valve to API 602.  
Inspection and Test: API 598 Or API 6D.  
End flange dimension; ASME B16.5 ( for NPSs24 ) ;  
ASME B 16.47 series B: API 605 Or ASME B16.47  
series AMSS SP-44[ for NP>24) .  
BW end dimension: ASME B16.25.  
Socket-weld dimension: ASME B1 6.1 1 .  
Face to face and end to end: ASME B1 6.10.  
Pressure-temperature ratings: ASME B1 6.34.  
Wall thickness dimension: API 600 and BS 1868.

### Seat

For carbon steel check valve, the seat is usually forged steel. The sealing surface of the seat is spray welded with hard alloy Specified by the customer. Renewable threaded seat is used for NPS; 10 check valves, and welded on seat can be also optional if being requested by the customer. Welded on seat is used for NPS; 12 carbon steel gate valves. For stainless steel check Valve, integral seat is usually adopted, or to weld hard alloy directly integrally. Threaded or welded on seat is also optional for stainless steel check valve if being requested by the customer.



### The Features of Check Valve

Bolted Bonnet;  
Swing and lift disc;  
Metallic seating surfaces.

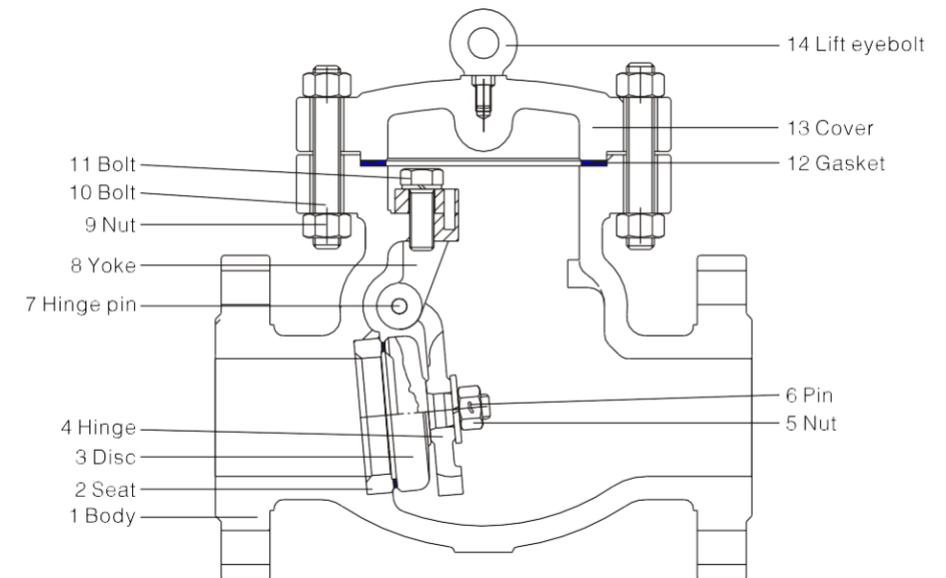
### Body-To-Bonnet Joint

Stainless steel + flexible graphite wounded gasket is used for Class150 and Class300 check valve; Stainless steel + flexible graphite wounded gasket is used for Class600 check valve, and joint gasket is also optional for Class600 check valve; Ring joint gasket is used for Class900 check valve; Pressure seal design is used for Class1500 – Class2500 check valves.

### Body and Bonnet Connection

The body and bonnet of Class150–Class900 check valves are usually with studs and nuts. And the body and bonnet of Class1500–Class2500 check valves are usually of pressure seal design .

### Cast Steel Swing Check Valve, Bolted Cover



### Main Parameter Specification

Design and Manufacture:	BS1868, API6D, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5 (24" & below), ASME B16.47A/B(Above 24")
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

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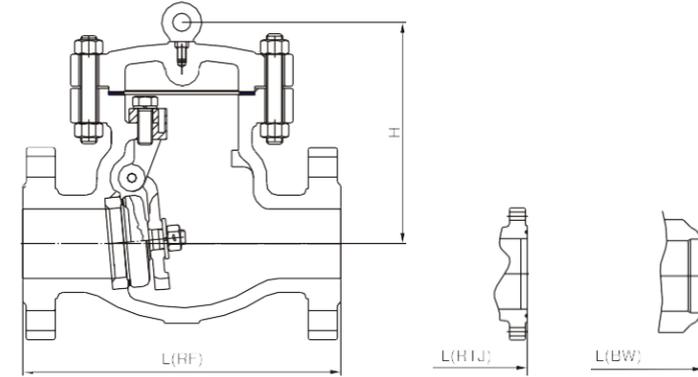
**Main Part Material(900Lb/1500Lb/2500Lb)**

NO.	Parts	Material						
		A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
1	Body	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Disc	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF*	A182 F51/F53/F55+HF*
3	Disc nut	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/C5+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*
4	Stem	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
5	Bonnet	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
6	Sealing ring	A182 F6a	A182 F6a	A182 F6a	A182 F304(L)	A182 F316(L)	A182 F316(L)	A182 F316(L)
7	Segment Ring	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
8	Bolt	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
9	Nut	A194 2H(M)	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
10	Packing	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
11	Pin	A193 B7(M)	A193 L7	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
12	Eyebolt	S.S+Graphite or S.S						
13	Gland	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/C5	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
14	Gland flange	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr

\* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#, 8#, 10#, 12#, 16# etc.

**Construction and Dimension**

CLASS 150Lb~300Lb



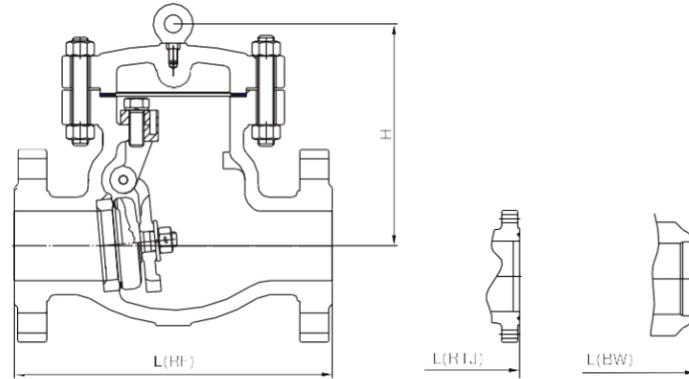
SIZE		150Lb					300Lb				
		DN(mm)	NPS(in)	RF≈	Weight(kg)	H	RF≈	Weight(kg)	H		
50	2									203	216
65	2 1/2	216	229	216	23	147	292	308	292	31	169
80	3	241	254	241	29	176	318	333	318	42	210
100	4	292	305	292	48	198	356	371	356	65	260
125	5	330	343	330	70	255	400	416	400	95	295
150	6	356	368	356	85	320	444	460	444	140	326
200	8	495	508	495	148	380	533	549	533	223	380
250	10	622	635	622	240	440	622	638	622	360	440
300	12	699	711	699	350	480	711	727	711	505	520
350	14	787	800	787	435	530	838	854	838	665	540
400	16	864	876	864	560	580	864	879	864	835	588
450	18	978	991	978	665	618	978	994	978	968	670
500	20	978	991	978	850	657	1016	1035	1016	1350	720
600	24	1295	1308	1295	1240	691	1346	1368	1346	1825	850
700	28	1448		1448	1635	794	1499		1499	2385	1150
750	30	1524		1524	1920	857	1594		1594	2660	1260
900	36	1956		1956	2250	991	2083		2083	3315	1380

## BS1868 BOLTED COVER SWING CHECK VALVE

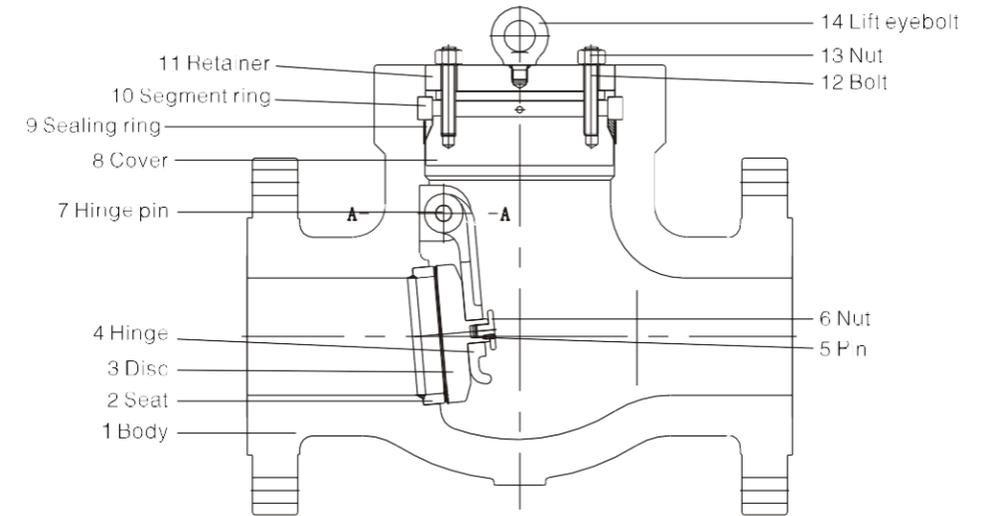
## ASME B16.34 PRESSURE SEAL SWING CHECK VALVE

### Construction and Dimension

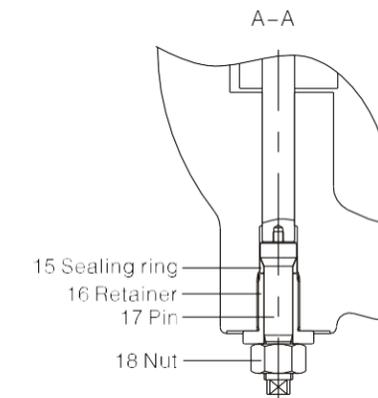
CLASS 600Lb~900Lb



### Cast Steel Swing Check Valve Pressure Sealed Cover



SIZE		150Lb					300Lb				
DN(mm)	NPS(in)				Weight(kg)	H				Weight(kg)	H
					RF≈					RF≈	
50	2	292	295	292	28	170	368	371	368	48	200
65	2 1/2	330	333	330	40	178	419	422	419	75	220
80	3	356	359	356	68	246	381	384	381	95	280
100	4	432	435	432	117	290	457	460	457	135	320
125	5	508	511	508	155	320	559	562	559	200	360
150	6	559	562	559	192	360	610	613	610	264	400
200	8	660	664	660	340	430	737	740	737	424	480
250	10	787	791	787	515	502	838	841	838	730	560
300	12	838	841	838	750	554	965	968	965	1070	632
350	14	889	892	889	890	595	1029	1032	1029	1180	680
400	16	991	994	991	1303	680	1130	1140	1130	1790	780
450	18	1092	1095	1092	1800	778	1219	1232	1219	2500	880
500	20	1194	1200	1194	2150	970	1321	1334	1321	3080	1050
600	24	1397	1407	1397	3200	1100	1549	1562	1549	4600	1200



### Main Parameter Specification

Design and Manufacture:	BS1868, API6D, ASME B16.34
Face to Face Dimension:	ASME B16.10
Flange Connection Dimension:	ASME B16.5
BW Connection Dimension:	ASME B16.25
Test and Inspection:	API598

ASME B16.34 PRESSURE SEAL SWING CHECK VALVE

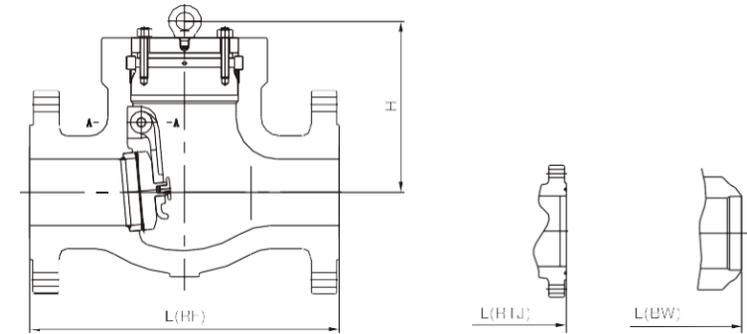
ASME B16.34 PRESSURE SEAL SWING CHECK VALVE

Main Part Material(900Lb/1500Lb/2500Lb)

NO.	Parts	Material							
		A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/CE	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
1	Seat	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/CE	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
2	Body	A105+HF*	A350 LF2+HF*	A182 F11/F22/F304+HF*	A182 F91+HF*	A182 F304/F304L+HF*	A182 F316/F316L+HF*	A182 F321+HF*	A182 F51/F53/F55+HF*
3	Disc	A216 WCB/WCC+HF*	A352 LCB/LCC+HF*	A217 WC6/WC9/CE+HF*	A217 C12A+HF*	A351 CF8/CF3+HF*	A351 CF8M/CF3M+HF*	A351 CF8C+HF*	A890 4A/5A/6A+HF*
4	Hinge	A216 WCB/WCC	A352 LCB/LCC	A217 WC6/WC9/CE	A217 C12A	A351 CF8/CF3	A351 CF8M/CF3M	A351 CF8C	A890 4A/5A/6A
5	Pin	A182 F6a	A182 F6a	A182 F6a	A182 F6a	A182 F304(L)	A182 F316(L)	A182 F316(L)	A182 F316(L)
6	Nut	CS	CS	CS	CS	S.S	S.S	S.S	S.S
7	Hinge pin	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
8	Cover	A105	LF2	A182 F11/F22/F5	A182 F91	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
9	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
10	Segment ring	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F6A
11	Retainer	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304
12	Bolt	A193 B7(M)	A193 L7	A193 B16	A193 B16	A193 B8	A193 B8M	A193 B16	A193 B16
13	Nut	A194 2H(M)	A194 4	A194 4	A194 4	A194 8	A194 8M	A194 4	A194 4
14	Lift eyebolt	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr	AISI 1025+Zr
15	Sealing ring	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304	A182 F316	A182 F316	A182 F51
16	Retainer	A182 F6A	A182 F6A	A182 F6A	A182 F6A	A182 F304	A182 F304	A182 F304	A182 F304
17	Pin	A182 F6a	A182 F316/F6a	A182 F6A/A182 F304	A182 F6A/A182 F304	A182 F304(L)	A182 F316(L)	A182 F321	A182 F51/F53/F55
18	Nut	CS+Zn	CS+Zn	CS+Zn	CS+Zn	S.S	S.S	S.S	S.S

\* Based on different trim, the HF can be different, the widely applied trim include 1#, 2#, 5#, 8#, 10#, 12#, 16# etc.

Construction and Dimension



CLASS 900Lb~1500Lb

SIZE		900Lb					1500Lb				
DN(mm)	NPS(in)	Weight(kg)	Weight(kg)	Weight(kg)	H	Weight(kg)	Weight(kg)	Weight(kg)	H	Weight(kg)	H
50	2	368	371	368	48	200	368	371	368	48	210
65	2 1/2	419	422	419	75	220	419	422	419	75	240
80	3	381	384	381	95	280	470	473	470	120	303
100	4	457	460	457	135	320	546	549	546	180	340
125	5	559	562	559	200	360	673	676	673	294	380
150	6	610	613	610	264	400	705	711	705	385	430
200	8	737	740	737	424	480	832	841	832	634	500
250	10	838	841	838	730	560	991	1000	991	1140	590
300	12	965	968	965	1070	632	1130	1146	1130	1650	660
350	14	1029	1038	1029	1180	680	1257	1276	1257	2000	710
400	16	1130	1140	1130	1790	780	1384	1407	1384	2700	820
450	18	1219	1232	1219	2500	880					
500	20	1321	1334	1321	3080	1050					
600	24	1549	1568	1549	4600	1200					

CLASS 2500Lb

SIZE		2500Lb				
DN(mm)	NPS(in)	Weight(kg)	Weight(kg)	Weight(kg)	H	Weight(kg)
50	2	451	454	451	68	230
65	2 1/2	508	514	508	100	260
80	3	578	584	578	165	330
100	4	673	683	673	260	370
125	5	794	807	794	440	410
150	6	914	927	914	580	460
200	8	1022	1038	1022	970	530
250	10	1270	1292	1270	1700	620
300	12	1422	1445	1422	2600	690