

## Cast Steel Swing Check Valve (Bolted Cover)

FlowBiz Brand Swing Check valves are automatic valves that open with the forward flow and close with reverse flow.

FlowBiz make Swing Check Valve is mounted with a disc that swings on a hinge. The disc swings off the seat to provide forward flow, and when the flow is stopped, the disc swings back onto the seat to block reverse flow.

### Industries We Serve :

- Refineries, Power Stations, Process and General Industry
- For Water, Steam, Gas, Oil, and Other Media
- Other application on request

**Size Range :** 2 inch to 24 inch (50mm to 600mm)

**Class :** 150 class to 600 Class

### Operating Date

- Maximum allowable pressure 1500 psi (106 bar)
- Maximum allowable temperature 1500° F (816° C)
- Pressure/Temperature ratings per ASME B16.34



Material Options	
ASTM A216 WCB	up to 800° F (427° C)
ASTM A217 WC6	up to 1100° F (593° C)
ASTM A217 WC9	up to 1100° F (593° C)
ASTM A217 C5	up to 1200° F (649° C)
ASTM A217 C12	up to 1200° F (649° C)
ASTM A352 LCB	up to 650° F (343° C)
ASTM A352 LCC	up to 650° F (343° C)
ASTM A351 CF8	up to 1500° F (816° C)
ASTM A352 CF8M	up to 1500° F (816° C)

### Trims : As per API 600

### Design Specification :

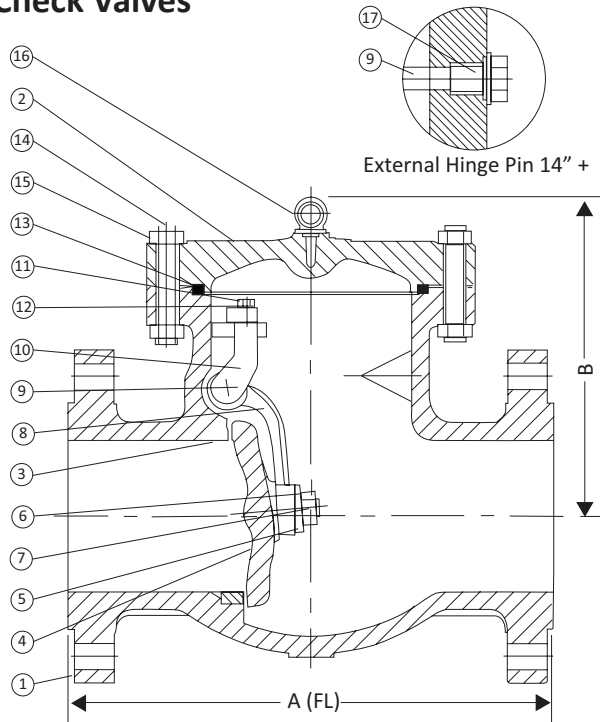
- Check Valve Design per BS 1868
- Pressure / Temperature Rating per ASME B16.34
- End to End dimension per ASME B16.10
- Flange dimension per ASME B16.5
- Testing per API 598
- Bolted Cover
- Internally Mounted Hinge (2" to 12")
- Stainless Steel / Graphite Gaskets

### How To Select?

- Valve Type
- ANSI Pressure Class
- Size
- Design Pressure
- Design Temperature
- Differential Pressure-shut off
- Flow Medium
- Material of Construction
- Trim Material (API Trim Number)
- Type of End Connection
- Pipe Schedule (For Butt-weld Ends)
- Add-Ons
- Valve data sheet if applicable

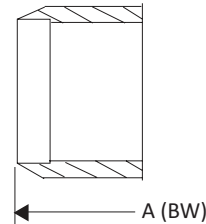


## Check Valves



### Design Specifications

General Valve Design	: BS 1868
Pressure / Temperature Rating	: ASME B16.34
Flange Dimensions	: ASME B16.5
Buttweld Ends	: ASME B16.25
End - to - End	: ASME B16.10
Testing	: API 598



### Class 150

SIZE		2	2.5	3	4	6	8	10	12	14	16	18	20	24
A (FL)	inch	8.00	8.50	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	51.00
	mm	203	216	241	292	356	495	622	699	787	864	978	978	1295
A (BW)	inch	8.00	8.50	9.50	11.50	14.00	19.50	24.50	27.50	31.00	34.00	38.50	38.50	51.00
	mm	203	216	241	292	356	495	622	699	787	864	978	978	1295
B	inch	5.7	6.7	7.3	8.3	9.1	14.8	17.4	19.6	21.7	23.9	26.2	28.0	31.8
	mm	144	170	185	212	232	375	442	497	551	607	665	712	807
Wt.	lbs	35	57	77	104	176	276	484	761	970	1301	1687	2105	3086
	kg	16	26	35	47	80	125	220	345	440	590	765	955	1400

### Class 300

SIZE		2	2.5	3	4	6	8	10	12	14	16	18	20	24
A (FL)	inch	10.50	11.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00
	mm	267	292	318	356	445	533	622	711	838	864	978	1016	1346
A (BW)	inch	10.50	11.50	12.50	14.00	17.50	21.00	24.50	28.00	33.00	34.00	38.50	40.00	53.00
	mm	267	292	318	356	445	533	622	711	838	864	978	1016	1346
B	inch	5.7	7.3	7.9	8.9	10.4	15.7	17.6	19.8	24.8	28.1	23.6	26.4	29.5
	mm	144	185	200	225	265	399	447	504	629	715	600	670	750
Wt.	lbs	49	66	90	139	265	584	617	860	1499	1962	2255	2904	4312
	kg	22	30	41	63	120	265	280	390	680	890	1025	1320	1960

### Class 600

SIZE		2	2.5	3	4	6	8	10	12	14	16	18	20	24
A (FL)	inch	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397
A (BW)	inch	11.50	13.00	14.00	17.00	22.00	26.00	31.00	33.00	35.00	39.00	43.00	47.00	55.00
	mm	292	330	356	432	559	660	787	838	889	991	1092	1194	1397
B	inch	6.9	7.9	8.7	9.9	11.2	18.0	21.0	25.2	22.6	26.0	28.4	29.4	37.8
	mm	175	200	220	252	284	457	534	640	572	660	720	746	960
Wt.	lbs	62	108	121	214	353	683	1080	1411	2077	2684	3564	4664	6820
	kg	28	49	55	97	160	310	490	640	944	1220	1620	2120	3100



## Materials :

Part No.	Part Name	WCB	WC6	WC9	C5	C12	LCB	LCC	CF8	CF8M	
1	Body	A216 WCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A352 LCB	A352 LCC	A351 CF8	A351 CF8M	
2	Cap	A216 WCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A352 LCB	A352 LCC	A351 CF8	A351 CF8M	
3	Seat Ring Base	A105	A182 F11	A182 F22	A182 F5	A182 F9	A350 LF2	A350 LF2	Integral		
4	Disc Base	A216 WCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A352 LCB	A352 LCC	A351 CF8	A351 CF8M	
5	Disc Washer	13Cr	13Cr	13Cr	13Cr	13Cr	304	304	304	316	
6	Disc Nut	Stainless Steel									
7	Disc Nut Pin	Stainless Steel									
8	Hinge Arm	A216 WCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A352 LCB	A352 LCC	A351 CF8	A351 CF8M	
9	Hinge Pin	See Trim Material Table									
10	Hinge Bracket	A216 WCB	A217 WC6	A217 WC9	A217 C5	A217 C12	A352 LCB	A352 LCC	A351 CF8	A351 CF8M	
11	Hex Bolt	Carbon Steel							Stainless Steel		
12	Lock Washer	Carbon Steel							Stainless Steel		
13	Gasket	Graphite + Stainless Steel									
14	Bonnet Studs	A193 B7	A193 B16	A193 B16	A193 B16	A193 B16	A320 L7	A320 L7	A193 B8	A193 B8	
15	Bonnet Nuts	A194 2H	A194 Gr. 4	A194 Gr. 4	A194 Gr. 4	A194 Gr. 4	A194 Gr. 4	A194 Gr. 4	A194 Gr. 8	A194 Gr. 8	
16	Eyebolt (3"+)	Carbon Steel							Stainless Steel		
17	Plug	Carbon Steel							Stainless Steel		

## Trim Materials :

Part No.w	Part Name	Trim 1 13Cr/13Cr	Trim 2 304/304	Trim 5 Stellite/Stellite	Trim 8 Stellite/13Cr	Trim 10 316/316
4	Disc Face	13Cr	304 Stainless Steel	Stellite	13Cr	316 Stainless Steel
3	Seat Ring Face	13Cr	304 Stainless Steel	Stellite	Stellite	316 Stainless Steel
9	Hinge Pin	13Cr	304 Stainless Steel	13Cr	13Cr	316 Stainless Steel

## Test Requirements :

Test	Medium	Class 150		Class 300		Class 600	
		psi	bar	psi	bar	psi	bar
Shell	Water	450	32	1125	78	2225	153
Backseat	Water	315	23	815	56	1630	112
Seat	Water	315	23	815	56	1630	112

**Note :** A216 WCB test pressures

