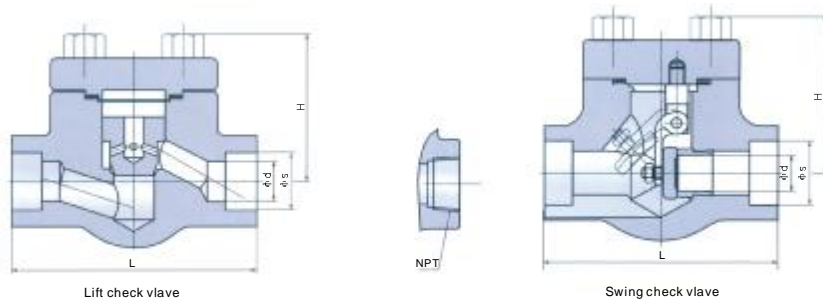


Class150~Class1500 Forged Steel Check Valve



Standards

Design and Manufacture: API602.
 Inspection and Test: API598.
 Socket-weld dimension: ASMEB16.11.
 End threads dimension: ASMEB1.20.1.
 Pressure-temperature ratings: ASMEB16.34.

Class	Size		Lift check valve						Swing check valve					
	NPS	DN	Dimensions(mm)				NPT	Weight (kg)	Dimensions(mm)				NPT	Weight (kg)
			L	d	S	H			L	d	S	H		
150-800	1/2	15	79	9.5	21.8	61	1/2	1.2	79	9.5	21.8	61	1/2	1.0
	3/4	20	92	12.7	27.1	61	3/4	1.4	92	12.7	27.1	61	3/4	1.1
	1	25	111	17.5	33.8	78	1	2.3	111	17.5	33.8	78	1	1.9
	1 1/4	32	120	23.8	42.6	84	1 1/4	3.9	120	23.8	42.6	84	1 1/4	3.4
	1 1/2	40	152	28.6	48.7	103	1 1/2	5.6	120	28.6	48.7	101	1 1/2	4.5
900	2	50	172	36.5	61.1	118	2	8.9	140	36.5	61.1	120	2	7.3
	1/2	15	111	9.5	21.8	79	1/2	3.0	111	9.5	21.8	79	1/2	3.0
	3/4	20	111	12.7	27.1	79	3/4	3.4	111	12.7	27.1	79	3/4	3.6
	1	25	120	17.5	33.8	97	1	4.8	120	17.5	33.8	97	1	4.3
	1 1/4	32	152	23.8	42.6	104	1 1/4	6.9	120	23.8	42.6	105	1 1/4	6.1
1500	1 1/2	40	172	28.6	48.7	120	1 1/2	10.7	140	28.6	48.7	120	1 1/2	8.8
	2	50	220	36.5	61.1	139	2	14.6	170	36.5	61.1	140	2	12.6
	1/2	15	111	9.5	21.8	79	1/2	3.0	111	9.5	21.8	79	1/2	3.0
	3/4	20	111	12.7	27.1	79	3/4	3.4	111	12.7	27.1	79	3/4	3.6
	1	25	120	17.5	33.8	97	1	4.8	120	17.5	33.8	97	1	4.3



Reliable seat seal

Design and Manufacture: Cast steel check valve to BS 1868, ASME B 16.34 and API 6D;
 Forged steel check valve to API 602.
 Inspection and Test: API 598 or API 6D.
 End flange dimension: ASME B 16.5 (for NPS ≤ 24);
 ASME B 16.47 series B, API 605 or ASME B16.47 Series A, MSS SP-44 (for NOS > 24).
 BW end dimension: ASME B 16.25.
 Socket-weld dimension: ASME B16.11.
 Face to face and end to end: ASME B16.34.
 Pressure-temperature ratings: ASME B 16.34.
 Wall thickness dimension: API 600 and BS 1868.

Reliable seat seal

Design and Manufacture: Cast steel check valve to BS 1868, ASME B 16.34 and API 6D; Forged steel check valve to API 602. Inspection and Test: API 598 or API 6D. End flange dimension: ASME B 16.5 (for NPS ≤ 24); ASME B 16.47 series B, API 605 or ASME B 16.47 Series A, MSS SP-44 (for NOS > 24). BW end dimension: ASME B 16.25. Socket-weld dimension: ASME B 16.11. Face to face and end to end: ASME B 16.34. Pressure-temperature ratings: ASME B 16.34. Wall thickness dimension: API 600 and BS 1868.



Body and Bonnet Connection

The body and bonnet of Class 150–Class 900 check valves are usually with studs and nuts. And the body and bonnet of Class 1500 – Class 2500 check valves are usually of pressurized seal design.

Body-To-Bonnet Joint

Stainless steel + flexible graphite wounded gasket is used for Class 150 and Class 300 check valve, Stainless steel + flexible graphite wounded gasket is used for Class 600 check valve, and joint gasket is also optional for Class 600 check valve: Ring joint gasket is used for Class 900 check valve: Pressurized seal design is used for Class 1500–Class 2500 check valves.

The features of check valve

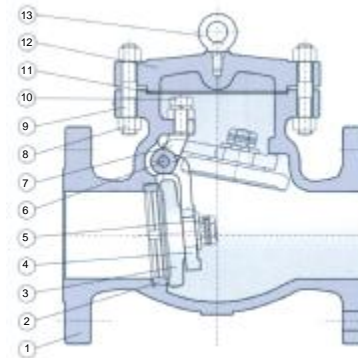
- Bolted Bonnet;
- Swing and lift disc;
- Metallic seating surfaces.

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.



CAST STEEL SWING CHECK VALVE



Standards

Design and Manufacture: BS 1868 or API 6D
 Inspection and Test: API 598 or API 6D
 End flange dimension: ASME B 16.5;
 ASME B 16.47A, MSS SP-44;
 ASME B 16.47B, API 605

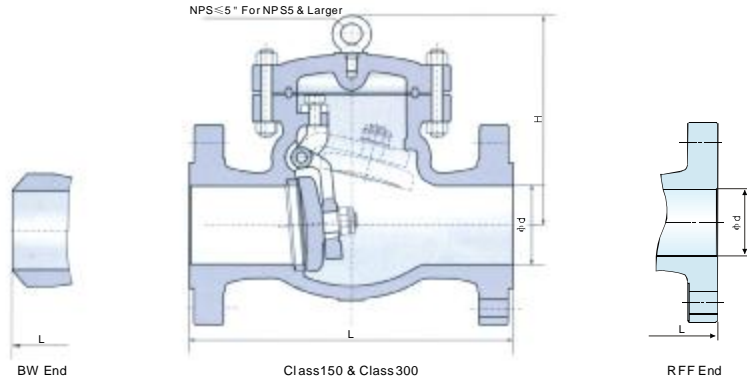
BW end dimension: ASME B 16.25
 Face to face (end to end): ASME B 16.10
 Pressure-temperature ratings : ASME B 16.34
 Wall thickness dimension: API 600 and BS 1868

Parts and material list

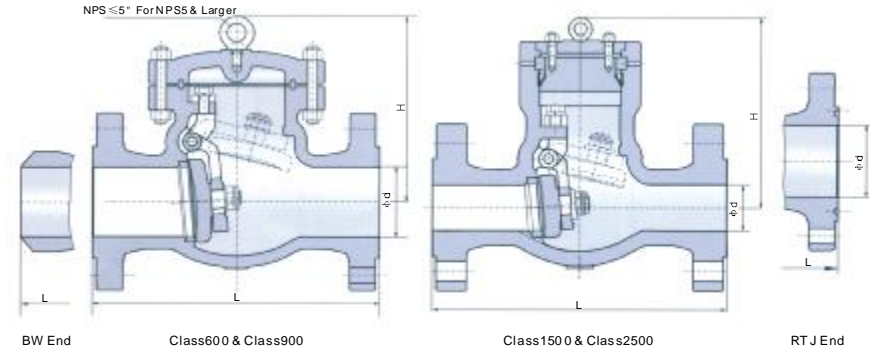
Parts No.	Parts name	Materials				
		WCB/Trim1	WCB/Trim5	WCB/Trim8	CF8/304	CF8M/316
1	Body	ASTMA216WCB	ASTMA216WCB	ASTMA216WCB	ASTMA351 CF8	ASTMA351 CF8M
2	Seating	A105+13Cr	A105+STL	A105+STL	ASTMA351 CF8	ASTMA351 CF8M
3	Disc	ASTM A216 WCB+13Cr	ASTMA216WCB+STL	ASTM A216 WCB+13Cr	ASTMA351 CF8	ASTMA351 CF8M
4	Arm	ASTMA216WCB	ASTMA216WCB	ASTMA216WCB	ASTMA351 CF8	ASTMA351 CF8M
5	Nut	ASTM A194 2H	ASTMA194 2H	ASTMA194 2H	ASTMA1948	ASTMA1948M
6	Armpin	ASTMA182 F6a	ASTMA182 F6a	ASTMA182 F6a	ASTMA182 F304	ASTMA182 F316
7	Yoke	ASTMA216WCB	ASTMA216WCB	ASTMA216WCB	ASTMA351 CF8	ASTMA351 CF8M
8	Bonnet nut	ASTM A194 2H	ASTMA194 2H	ASTMA194 2H	ASTMA1948	ASTMA1948M
9	Bonnet bolt	ASTMA193 B7	ASTMA193 B7	ASTMA193 B7	ASTMA193 B8	ASTMA193 B8M
10	Bolt	ASTMA193 B7	ASTMA193 B7	ASTMA193 B7	ASTMA193B8	ASTMA193B8M
11	Gasket	304 sheet+Graphite	304 sheet+Graphite	304 sheet+Graphite	304+Graphite	304+Graphite
12	Bonnet	ASTMA216WCB	ASTMA216WCB	ASTMA216WCB	ASTMA351 CF8	ASTMA351 CF8M
13	Eye bolt	ASTMA181	ASTMA181	ASTMA181	ASTMA181	ASTMA181

Note: The chart above only lists out some common composition of steel check valve parts. We may provide other different parts material composition according to the customer's request or the actual valve working condition.

Class150~Class300 Cast Steel Swing Check Valve



Class600~Class2500 Cast Steel Swing Check Valve



Size		Class150						Class300					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
		R F	RFF	B W				R F	RFF	B W			
2	50	203	203	203	51	132	15	267	267	267	51	144	20
2½	65	216	216	216	64	147	20	292	292	292	64	169	35
3	80	241	241	241	76	176	27	318	318	318	76	210	40
4	100	292	292	292	102	198	45	356	356	356	102	260	61
5	125	330	330	330	127	255	58	400	400	400	127	295	80
6	150	356	356	356	152	320	69	445	445	445	152	326	130
8	200	495	495	495	203	380	131	533	533	533	203	380	190
10	250	622	622	622	254	440	219	622	622	622	254	440	296
12	300	699	699	699	305	480	321	711	711	711	305	520	450
14	350	787	787	787	337	530	380	838	838	838	337	540	640
16	400	864	864	864	387	580	560	864	864	664	387	588	850
18	450	978	978	978	438	618	630	978	978	978	438	670	1030
20	500	978	978	978	489	657	770	1016	1016	1016	489	720	1330
24	600	1295	1295	1295	591	760	960	1346	1346	1346	591	850	1950
26	650	1295	1295	1295	633	840	1250	1346	1346	1346	633	920	2300
28	700	1448	1448	1448	684	920	1580	1499	1499	1499	684	1150	2600
30	750	1524	1524	1524	735	980	1950	1594	1594	1594	735	1260	3200

Size		Class 600						Class900					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
		R F	RTJ	B W				R F	RTJ	B W			
2	50	292	295	292	51	170	28	368	371	368	51	200	48
2½	65	330	333	330	64	178	40	419	422	419	64	220	75
3	80	356	359	356	76	246	68	381	384	381	76	280	95
4	100	432	435	432	102	290	117	457	460	457	102	320	135
5	125	508	511	508	127	320	155	559	562	559	127	360	200
6	150	559	562	559	152	360	192	610	613	610	152	400	264
8	200	660	664	660	203	430	340	737	740	737	203	480	424
10	250	787	791	787	254	502	515	838	841	838	254	560	730
12	300	838	841	838	305	554	750	965	968	965	305	632	1070
14	350	889	892	889	337	595	890	1029	1038	1029	337	680	1180
16	400	991	994	991	387	680	1303	1130	1140	1130	373	780	1790
18	450	1092	1095	1092	438	778	1800	1219	1232	1219	423	880	2500
20	500	1194	1200	1194	489	970	2150	1321	1334	1321	471	1050	3080
24	600	1397	1407	1397	591	1100	3200	1549	1568	1549	522	1200	4600

Size		Class 1500						Class2500					
NPS	DN	Dimensions(mm)					Weight (kg)	Dimensions(mm)					Weight (kg)
		L			d	H		L			d	H	
		R F	RTJ	B W				R F	RTJ	B W			
2	50	368	371	368	51	210	48	451	454	451	42	230	68
2½	65	419	422	419	64	240	75	508	514	508	52	260	100
3	80	470	473	470	76	303	120	578	584	578	62	330	165
4	100	548	549	546	102	340	180	673	683	673	87	370	260
5	125	673	676	673	127	380	294	794	807	794	96	410	440
6	150	705	711	705	144	430	365	914	927	914	131	460	580
8	200	832	841	832	192	500	634	1022	1038	1022	179	530	970
10	250	991	1000	991	239	590	1140	1270	1292	1270	223	620	1700
12	300	1130	1146	1130	287	660	1650	1422	1445	1422	265	690	2600
14	350	1257	1276	1257	315	710	2000	-	-	-	-	-	-
16	400	1384	1407	1384	360	820	2700	-	-	-	-	-	-