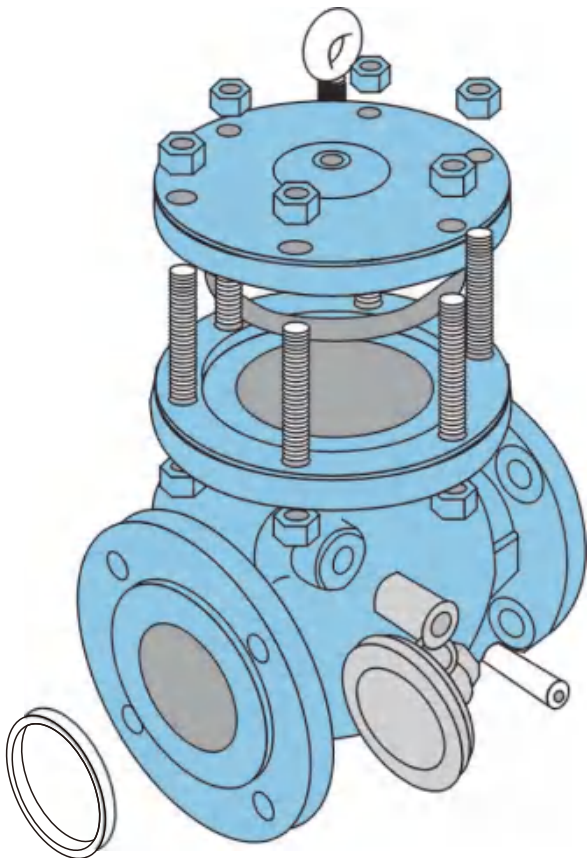


Steel Check Valve

TEK VALVE



◎ **Reliable seat seal**

Design and Manufacture: Cast steel check valve to BS1868, ASME B16.34 and API 6D;
Forged steel check valve to API 602.
Inspection and Test: API 598.
End flange dimension: ASME B16.5J for NPS 24JJ
ASME B 16.47 series B, ASME B16.47 series A, MSS SP-44J for NPSJ24J.
BW end dimension: ASME B16.25.
Socket-weld dimension: ASME B16.11.
Face to face and end to end: ASME B16.10.
Pressure-temperature ratings: ASME B16.34.

◎ **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 check 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**

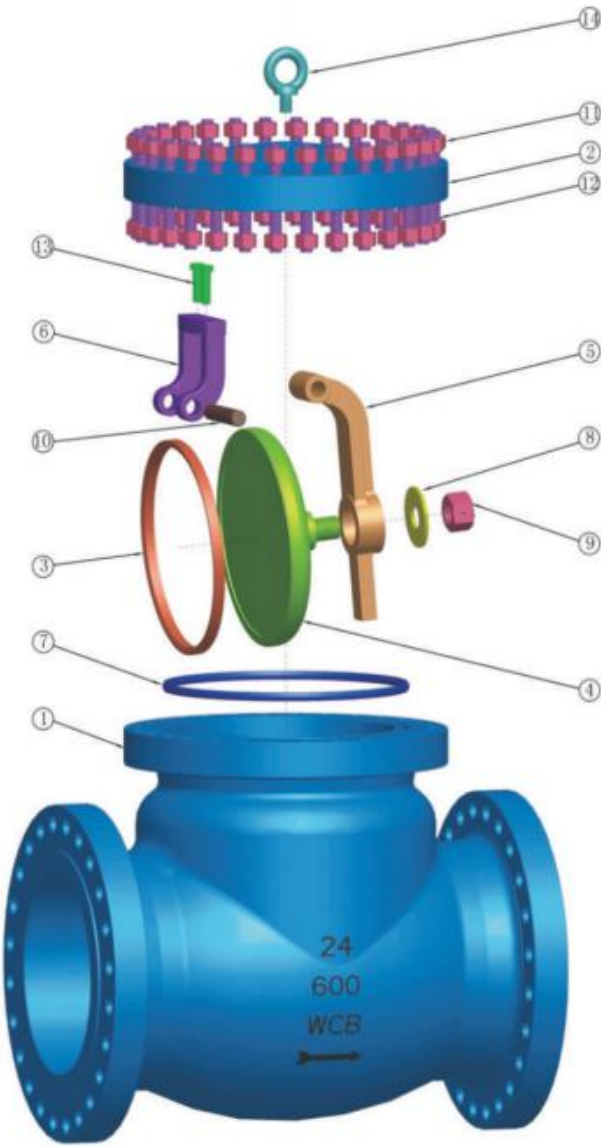
Bolted Bonnet;
Swing and lift disc;
Metallic seating surfaces.

◎ **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.



API SERIES

DIN SERIES

JIS SERIES

No	Part Name	No	Part Name	No	Part Name
1	Body	6	Yoke	11	Nut
2	Cover	7	Gasket	12	Bolt
3	Seat Ring	8	Disc Washer	13	Screw
4	Disc	9	Disc Nut	14	Lifting Lug
5	Hinge	10	Pin		

API Steel Check Valve

TEK VALVE



Trim material

Trim code	Seat ring surface	Wedge seat surface	Hinge Pin
1	13Cr	13Cr	A182 F6a
2	18Cr-8Ni	18Cr-8Ni	A182 F304
3	25Cr-20Ni	25Cr-20Ni	A182 F310
4	Hard 13Cr	Hard 13Cr	A182 F6a
5	Stellite	Stellite	A182 F6a
6	13Cr	Cu-Ni Alloy	Monel
7	13Cr	Hard 13Cr	A182 F6a
8	Stellite	13Cr	A182 F6a
9	Cu-Ni Alloy	Cu-Ni Alloy	Monel
10	18Cr-8Ni-Mo	18Cr-8Ni-Mo	A182 F316
11	Cu-Ni Alloy	Cu-Ni Alloy	Monel
12	Stellite	18Cr-8Ni-Mo	A182 F316
13	19Cr-29Ni	19Cr-29Ni	20 Alloy

ASTM Material list of BS1868 Swing Check Valve

No.	Part name	Carbon Steel to ASTM		Stainless Steel to ASTM				Alloy Steel to ASTM		
1	Body	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A217 WC6	A217 WC9	A217 C5
2	Cover	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A217 WC6	A217 WC9	A217 C5
3	Seat Ring	A105N	A352 LF2	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A182 F11	A182 F22	A182 F5
4	Disc	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A217 WC6	A217 WC9	A217 C5
5	Hinge	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A217 WC6	A217 WC9	A217 C5
6	Yoke	A216 WCB	A352 LCB	A351 CF8	A351 CF8M	A351 CF3	A351 CF3M	A217 WC6	A217 WC9	A217 C5
7	Gasket	Graphite+SS304, PTFE								
8	Disc Washer	A182 F6a	A182 F6a	A182 F304	A182 F316	A182 F304L	A182 F316L	A182 F304		
9	Disc Nut	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	A182 F304		
10	Pin	A182 F6a	A182 F304	A182 F304	A182 F316	A182 F304L	A182 F316L	A182 F304		
11	Nut	A194 2H	A194 4	A194 8				A194 7		
12	Bolt	A193 B7	A320 L7	A193 B8				A193 B16		
13	Screw	193 B7	A320 L7	A182 F304	A182 F316	A182 F304L	A182 F316L	A193 B16		
14	Lifting Lug	A194 2H								

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API Steel Swing Check Valve

TEK VALVE

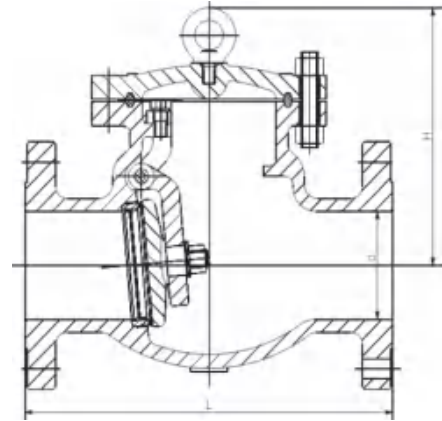
Construction feature

Bolted cover
Renewable seat
(Threaded or welded seat ring)

API598 Pressure Test

Pressure ratings: Class150
Hydraulic Shell test: 3.2MPa
Hydraulic Seat test: 2.2MPa
Air test: 0.6MPa

Pressure ratings: Class300
Hydraulic Shell test: 7.8MPa
Hydraulic Seat test: 5.7MPa
Air test: 0.6MPa



Main size of outside & weight

Size		Class 150						Class 300					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	203	216	203	51	132	15	267	283	267	51	144	20
2 1/2	65	216	229	216	64	147	20	292	308	292	64	169	35
3	80	241	254	241	76	176	27	318	333	318	76	210	40
4	100	292	305	292	102	198	45	356	371	356	102	260	61
5	125	330	343	330	127	255	58	400	416	400	127	295	80
6	150	356	368	356	152	320	69	445	460	445	152	326	130
8	200	495	508	495	203	380	131	533	549	533	203	380	190
10	250	622	635	622	254	440	219	622	638	622	254	440	296
12	300	699	711	699	305	480	321	711	727	711	305	520	450
14	350	787	800	787	337	530	380	838	854	838	337	540	640
16	400	864	876	864	387	580	560	864	879	864	387	588	850
18	450	978	991	978	438	618	630	978	994	978	432	670	1030
20	500	978	991	978	489	657	770	1016	1035	1016	483	720	1330
24	600	1295	1308	1295	591	760	960	1346	1368	1346	584	850	1950
26	650	1295	—	1295	633	840	1250	1346	1372	1346	633	920	2300
28	700	1448	—	1448	684	920	1580	1499	1524	1499	684	1150	2600
30	750	1524	1537	1524	735	980	1950	1594	1619	1594	735	1260	3200
32	800	1727	—	1727	779	1016	2800	1727	—	1727	779	1380	3700
36	900	1956	1969	1956	874	1092	3200	2083	—	2083	874	1540	4300

API SERIES

DIN SERIES

JIS SERIES

API Steel Swing Check Valve

TEK VALVE

Construction feature

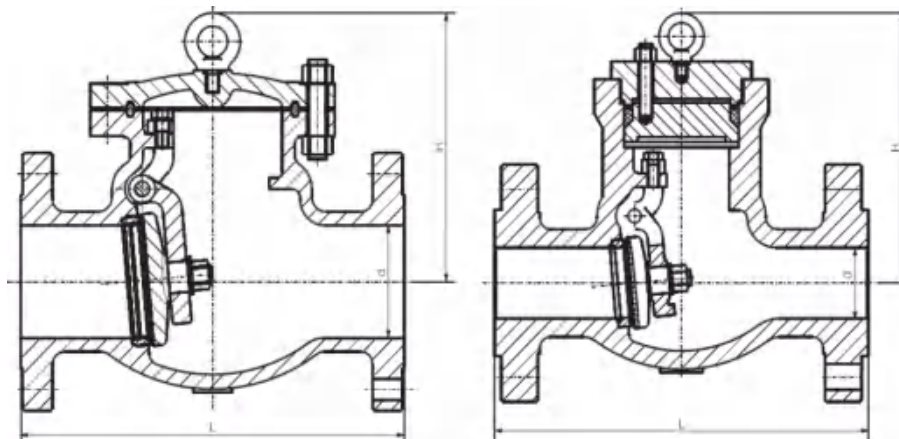
Bolted cover
Renewable seat
(Threaded or welded seat ring)

API598 Pressure Test

Pressure ratings: Class600
Hydraulic Shell test: 15.6MPa
Hydraulic Seat test: 11.4MPa
Air test: 0.6MPa

Pressure ratings: Class900
Hydraulic Shell test: 23.3MPa,
Hydraulic Seat test: 17.1MPa,
Air test: 0.6MPa

Pressure ratings: 1500
Hydraulic Shell test: 38.8MPa
Hydraulic Seat test: 28.5MPa
Air test: 0.6MPa



Main size of outside & weight

Size		Class 600						Class 900					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	292	295	292	51	170	28	368	371	368	47	200	48
2 1/2	65	330	333	330	64	178	40	419	422	419	57	220	75
3	80	356	359	356	76	246	68	381	384	381	73	280	95
4	100	432	435	432	102	290	117	457	460	457	98	320	135
5	125	508	511	508	127	320	155	559	562	559	121	360	200
6	150	559	562	559	152	360	192	610	613	610	146	400	264
8	200	660	664	660	200	430	340	737	740	737	190	480	424
10	250	787	791	787	248	502	515	838	841	838	234	560	730
12	300	838	841	838	298	554	750	965	968	965	282	632	1070
14	350	889	892	889	327	595	890	1029	1038	1029	311	680	1180
16	400	991	994	991	375	680	1303	1130	1140	1130	354	780	1790
18	450	1092	1095	1092	419	778	1800	1219	1232	1219	400	880	2500
20	500	1194	1200	1194	464	970	2150	1321	1334	1321	444	1050	3080
24	600	1397	1407	1397	559	1100	3200	1549	1568	1549	533	1200	4600

Size		Class 1500						Class 2500					
NPS	DN	L			d	H	Weight (Kg)	L			d	H	Weight (Kg)
		RF	RTJ	BW				RF	RTJ	BW			
2	50	368	371	368	47	210	48	451	454	451	35	230	68
2 1/2	65	419	422	419	57	240	75	508	514	508	47	260	100
3	80	470	473	470	70	303	120	578	584	578	57	330	165
4	100	546	549	546	92	340	180	673	683	673	73	370	260
5	125	673	676	673	111	380	294	794	807	794	92	410	440
6	150	705	711	705	136	430	385	914	927	914	111	460	580
8	200	832	841	832	174	500	634	1022	1038	1022	146	530	970
10	250	991	1000	991	222	590	1140	1270	1292	1270	184	620	1700
12	300	1130	1146	1130	263	660	1650	1422	1445	1422	219	690	2600
14	350	1257	1276	1257	289	710	2000	-	-	-	-	-	-
16	400	1384	1407	1384	330	820	2700	-	-	-	-	-	-