

DUAL DISC CHECK VALVE

RETAINERLESS BODY DESIGN

The dual disc check valve's body is essentially a short, heavy wall cylinder with no holes through the body wall. There is no need for retainers and leakage to the outside is impossible.

SHOCK BUMPERS DESIGN

The dual disc check valve design utilizes heavy duty "shock bumpers" on the back of each disc. These bumpers meet when the valve is in the full open position thus preventing the discs from striking the stop pin. This arrangement reduces the shock force on the hinges, ensuring internal components have an extended cycle life with minimal wear under the most severe service conditions.

SUPERIOR HINGE DESIGN

In order to eliminate seat wear during the opening cycle, all dual disc check valves incorporate clearance between the hinge pin and holders, or hinge pin and disc bore. This clearance allows the disc assembly to lift off the seat prior to disc rotation preventing the heel of each disc from scraping across the body seat. Conventional designs have an oversize bore in the discs or bearings, allowing constant side to side movement of discs and increased chance of premature failure. The patented hinge pin slot allows movement in only one axis preventing premature wear. The discs, therefore, last longer and the useful life of the valve is extended.

LAPPED BODY & DISC SEATS DESIGN

The heart of each valve is the seat/seal interface. This valve is manufactured using the most updated machining methods and equipment to achieve maximum flatness with a fine lapped finish. The end result is valves that easily meet and exceed test requirements of API 598 for metal-seated check valves.

UNINTERRUPTED GASKET SURFACE DESIGN

The dual disc check valves use an internal retention method which does not encroach on the gasket sealing surface. Other retainerless designs have an internal retention method incorporating a special key and retaining screw. These components encroach on the serrated sealing face area restricting the kind of gasket that can be used. Furthermore, the screws can corrode making maintenance difficult.



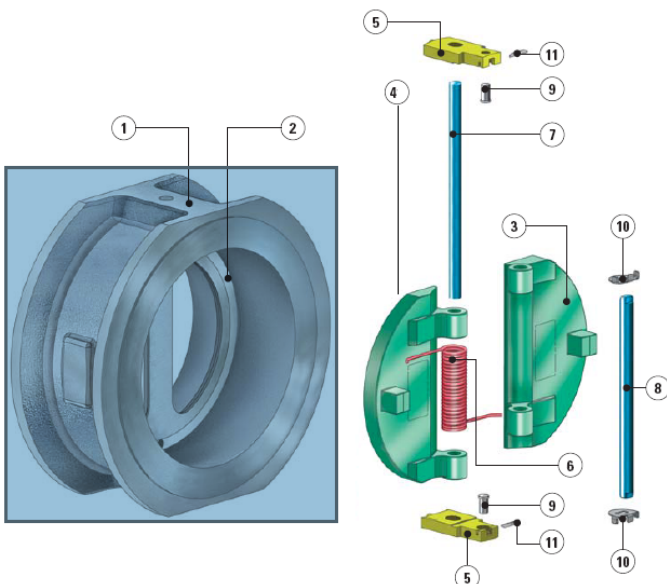
BENEFIT AND FEATURE

- Prevents uncontrolled flow of fluids from the wellbore in case of a pipe failure;
- Allows unobstructed flow of fluids and nitrogen;
- Internal passage allows passage of process balls;
- Readily available O-ring seals for pressure integrity of CT down-hole operations;
- Easily converted from standard to acid service by interchanging only few parts;
- Quickly redressed with field equipment;
- Easy replacement of flapper valve inserts.

STANDARDATION

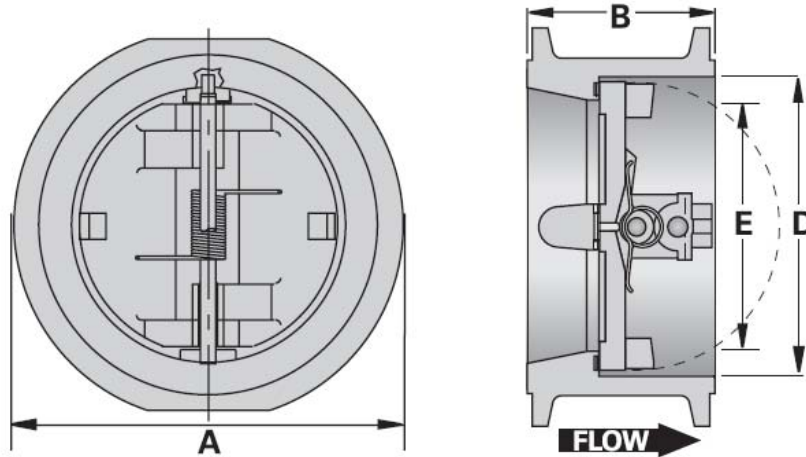
ITEM	STANDARD
Design and manufacture	API 594
Pressure-temperature rating	ASME B16.34
Face-to-face dimension	API 594
Flange	(50~600 mm) ASME B16.5 (600 mm) B16.47 Series A

PARTS LIST



ITEM	PARTS NAME
1	Body
2	Body seat
3	Disc
4	Disc seat
5	Holder
6	Spring
7	Hinge pin
8	Stop pin
9	Retainer pin
10	Lock washer
11	Lock pin

DIMENSION-WAFER TYPE



Wafer Type – ASME Class 150

DN	A	B	D	E	NO.	Diameter	RF	END FACING	EYE BOLT HOLE SIZE
50	105	60	60	0	4	16	146	RF	–
65	124	67	73	27	4	16	159	RF	–
80	137	73	73	43	4	16	171	RF	–
100	175	73	114	85	8	16	171	RF	–
125	197	86	141	112	8	19	191	RF	–
150	222	98	168	143	8	19	203	RF	13
200	279	127	219	187	8	19	241	RF	13
250	340	146	273	240	12	22	267	RF	13
300	410	181	324	283	12	22	311	RF	19
350	451	184	356	311	12	25	324	RF	19
400	514	191	406	355	16	29	337	RF	25
450	549	203	457	405	16	29	362	RF	25
500	606	219	508	452	20	32	387	RF	25
600	718	222	610	541	20	32	406	RF	25
700	832	381	711	560	28	32	622	RF	25
800	940	356	813	743	28	38	629	RF	25
900	1048	368	914	848	32	38	660	RF	25
1000	1162	432	1016	954	36	38	724	RF	38

* The information herein is subject to change without notice.

Wafer Type – ASME Class 300

DN	A	B	D	E	NO.	Diameter	RF	END FACING	EYE BOLT HOLE SIZE
50	111	60	60	0	8	16	152	RF	–
65	130	67	73	30	8	19	171	RF	–
80	149	73	74	48	8	19	184	RF	–
100	181	73	114	85	8	19	191	RF	–
125	216	86	141	112	8	19	210	RF	–
150	251	98	168	139	12	19	229	RF	13
200	308	127	219	187	12	22	273	RF	13
250	362	146	273	240	16	25	311	RF	13
300	422	181	324	283	16	29	362	RF	19
350	486	222	356	312	20	29	406	RF	19
400	540	232	406	359	20	32	432	RF	25
450	597	264	457	418	24	32	470	RF	25
500	654	292	508	452	24	32	508	RF	25
600	775	318	610	555	24	38	559	RF	25
700	899	381	711	620	28	41	673	RF	25
800	1006	406	813	735	28	48	737	RF	25
900	1118	483	914	823	32	51	832	RF	25
1000	1114	546	914	922	32	41	895	RF	38

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Wafer Type – ASME Class 600

DN	A	B	D	E	NO.	Diameter	RF	END FACING	EYE BOLT HOLE SIZE
50	111	60	60	0	8	16	165	RF	–
65	149	73	74	54	8	19	197	RF	–
80	194	79	114	90	8	22	222	RF	–
100	267	137	168	133	12	25	305	RF	13
125	321	165	219	177	12	29	362	RF	13
150	400	213	273	231	16	32	432	RF	13
200	457	229	324	288	20	32	451	RF	19
250	492	273	356	316	20	35	514	RF	19
300	565	305	406	327	20	38	565	RF	25
350	613	362	457	369	20	41	641	RF	25
400	683	368	508	433	24	41	660	RF	25
450	791	438	610	513	24	41	756	RF	25
500	867	457	660	552	28	48	806	RF	25
600	914	483	711	607	28	51	845	RF	25
700	972	505	762	708	28	51	870	RF	25
800	1022	533	813	709	28	57	921	RF	25

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