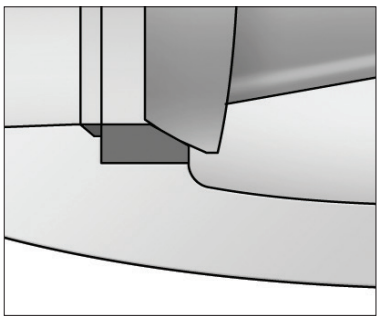
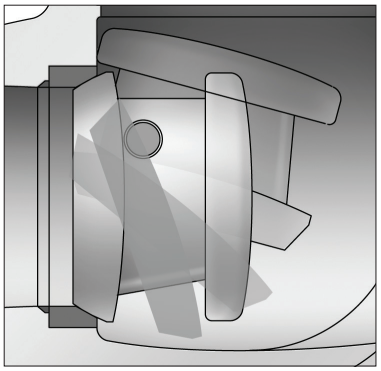
TILTING DISC CHECK VALVE



TILTING DISC CHECK ADVANTAGES

- Quick closing system
- Stability at low and pulsating flow
- Moderate pressure drop
- Tight sealing of metal seats

Seat contacts don't occur until the disc is seated and closed.



DOUBLE OFFSET

A high performance tiling disc check valve has double offset pivot (hinge pin) design.
The pivot offsets are made when constructing the valve with hinge pins which are located behind the centerline of sealing surface and slightly to one side of pipe centerline.
The offset purpose is to reduce rubbing and thus wear between seat and seal while valve is travelling.

OFFSET 1

The hinge pin is located in the centerline of disc seal surface.

OFFSET 2

The hinge pin is offset to the conical axis.

SERVICE RECOMMENDATION

1.The center of gravity of disc is very close to the axis or rotation, so that the disc can be opened or closed very quickly without damage to the body, disc or seat. Since the valve is closed quickly upon flow reversal significant fluid velocities are not developed in the reverse direction, therefore minimizing the effects of water hammer.

2.The tilting disc check valve has greater stability at low flow rates and in pulsating service when compared to a swing check valve.

3.The pressure drop across a tilting disc check will usually be much less than for an equivalent life check. Although a tilting disc check valve will restrict flow slightly more than a swing check, the straight-through flow path provides a minimal pressure drop.

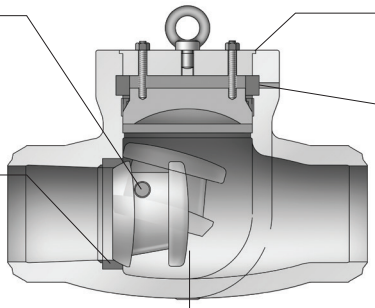
4.Tilting disc check valve have moderate sealing capability and can provide tight shutoff if the differential pressure across the disc is relatively large.

Hinge pin

The hinge pins for supporting the disc are inserted through capped and gasketed bearing bosses in the outlet section of body. Sealing mechanism by hinge pins is the same as pressure seal bonnet.

Seat Ring

Seat ring is hardfaced for a long life and securely welded in place.



Pressure seal bonnet

A simple design has segmental retaining ring and soft steel gasket to aid disassembly and provide maximum bonnet seal.

Retainer Ring

Segmental retainer ring absorbs all the thrusts applied by internal pressure.

Disc

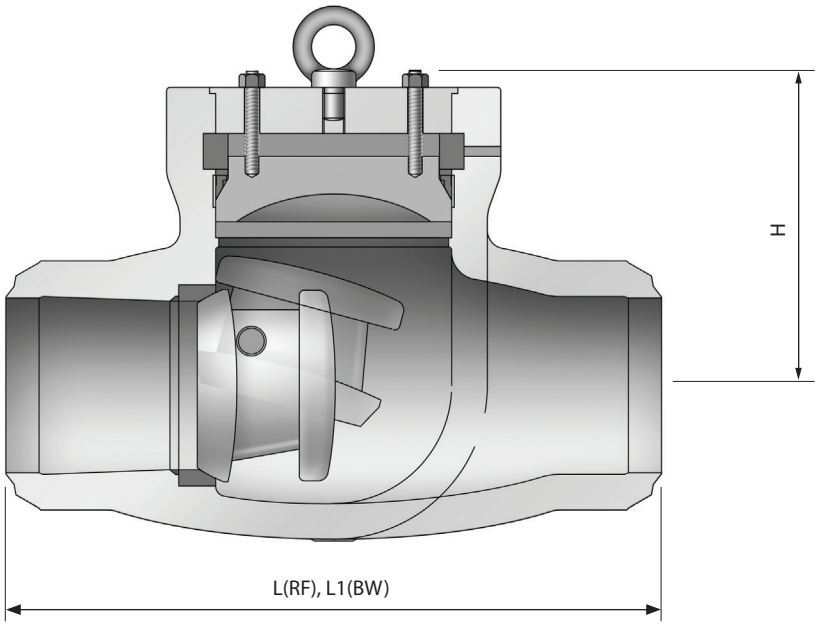
Conical seating has a structure of self-alignment, tightening and closing in no flow condition.

DESIGN DATA FEATURES

1. Face to face & end to end dimensions : ASME B 16.10
2. Flanged dimensions : ASME B 16.5
3. Butt welded end dimensions :ASME B 16.25
4. Valve size (if applicable) and ratings :ASME B 16.34
5. Wall thickness dimensions of valve comply with API 600

STANDARD MATERIAL SPECIFICATIONS

NO.	PART NAME	MATERIAL	
1	BODY	A216 - WCB	A217 - WC6
2	BONNET	A216 - WCB	A217 - WC6
3	DISC	A216 - WCB+STL	A217 - WC6+STL
4	HINGE PIN	A479 - 410	A479 - 410
5	BODY SEAT RING	A576 - 1020+STL	A182 - F11+STL
6	COVER	A576 - 1020	A240 - 304
7	GASKET	SOFT STEEL	304 S.S
8	COVER GASKET	GRAPHITE	304 S.S
9	BONNET BOLT	A193 - B7	A193 - B16
10	BONNET NUT	A194 - 2H	A194 - 4
11	BUSHING	A479 - 304	A479 - 304
12	BONNET CLAMP	A576 - 1045	A576 - 1045
13	RETAINER	A576 - 1045+Cr	A240 - 304
14	ADAPTER RING	A576 - 1045+Cr	A240 - 304
15	COVER BOLT	A193 - B7	A193 - B16
16	COVER NUT	A194 - 2H	A194 - 4
17	HINGE PIN NUT	A194 - 2H	A194 - 2H
18	EYE BOLT	A307 - B	A307 - B



DIMENSION AND WEIGHT

CLASS 600

UNIT : mm

SIZE	2	3	4	6	20
L	292.1	355.6	431.8	558.8	1193.8
L1	177.8	254.0	304.8	457.2	1193.8
H	191	205	245	257	590
WEIGHT(kg)	41	52	58	127	-

CLASS 900

UNIT : mm

SIZE	3	4	6	8	10	12	16
L	381.0	457.2	609.6	736.6	838.2	965.2	1130.3
L1	304.8	355.6	508.0	660.4	787.4	914.4	1092.2
H	230	250	252	347	391	470	590
WEIGHT(kg)	55	86	278	382	690	727	2189

CLASS 1500

UNIT : mm

SIZE	2	3	4	6	8	10	12	14	16	18	20
L	368.3	469.9	546.1	704.9	831.9	990.6	1130.3	1257.3	1384.3	1536.7	-
L1	215.9	304.8	406.4	558.8	711.2	863.6	990.6	1066.8	1193.8	1346.2	1320
H	185	230	250	266	298	437	459	513	603	633	760
WEIGHT(kg)	41	62	108	217	415	655	994	1500	2329	2600	3060

CLASS 2500

UNIT : mm

SIZE	2	3	4	6	8	10	12	14
L	450.9	577.9	673.1	914.4	1022.4	1270.0	1422.4	-
L1	279.4	368.3	457.2	609.6	762.0	914.4	1041.4	1117.6
H	186	240	224	254	385	464	538	786
WEIGHT(kg)	38	67	110	263	552	856	1735	1900