JFS

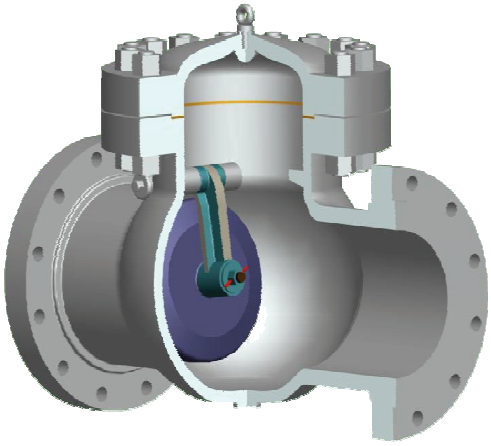
BEIJING JOINT FLOW SYSTEM CO.

CHECK VALVE

SWING CHECK VALVE

The Swing Check Valve is a robust design which incorporates all of the desirable features proven to provide long life and trouble free operation. Backflow prevention is assured by the free swinging clapper design which responds to the changes in flow and provides positive closure prior to the reversal of flow. The valve can be installed in horizontal or vertical flow-up applications.

It is a one-piece body, top entry design for reliable operation and extended seat seal life. Top entry construction allows field service and in-line maintenance if necessary. All major components of the check valve are normally made from cast and wrought forms, allowing the use of a variety of widely accepted materials.



FEATURE

- One-piece body, top entry.
- Full bore, assures unrestricted flow and allows pigging and hot tapping.
- Nominal pressure range from 1.0 MPa to 4.0 MPa, higher classes are available on request.
- Nominal size range from 50 mm to 600 mm, bigger sizes are available on request.
- Maximum working temperature varies in body material, from 100°C (cast iron) to 425°C (WCB).

STANDARD

Design and Manufacture	DIN 3202 F6/MSS SP-71/BS 5163/API 594
Pressure Test	DIN 3230/ANSI B16.34/API 598/BS 6755/ISO 5208
Face to Face Dimension	DIN 3202-F6/ANSI B16.10/API 6D/BS EN558
Flange Dimension	DIN 2532/EN 1092/ANSI B16.1/B16.42/B16.5/BS 4504/ISO 7005

*More standard specifications are available on request.

TEST DATA

Nominal Diameter DN (mm)	50-500	50-500	50-400	2"-30"	2"-30"	2"-24"	2"-24"
Nominal Pressure PN (MPa)	1.6	2.5	4.0	150(lb)	300(lb)	600(lb)	900(lb)
Hydraulic Shell Test Pressure (MPa)	2.4	3.75	6.0	3.0	7.5	16.5	22.5
Hydraulic Seal Test Pressure (MPa)	1.76	2.75	4.4	2.2	5.5	12.1	16.5

*More test specifications are available on request.

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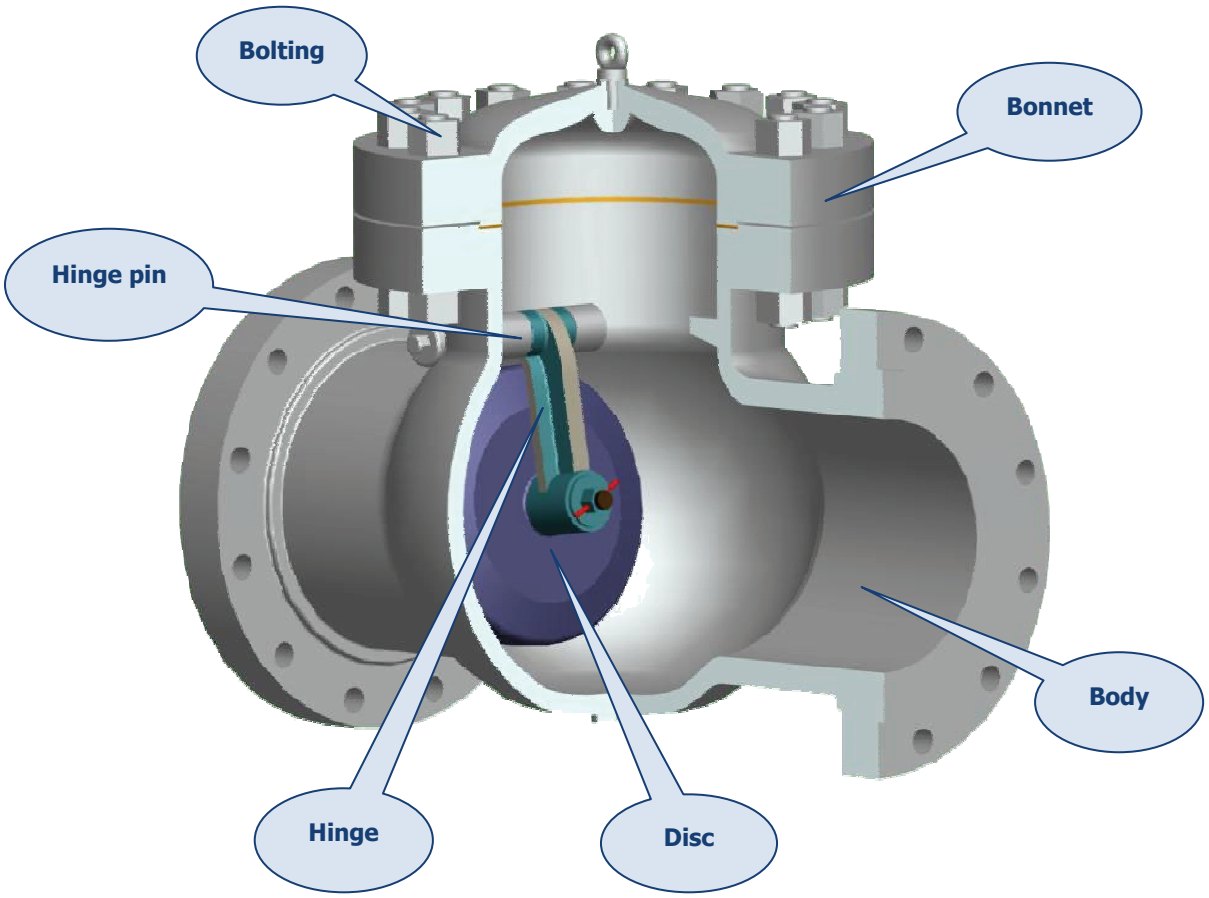
CONSTRUCTION



{Bonnet} - The bonnet cover is in cast iron or steel.

{Body} - The body is in cast iron or steel, carefully designed so as to keep pressure drops to a minimum. Top entry construction permits easy inspection and maintenance. The body is threaded for a renewable seat and an integral over-travel stop for the disc is incorporated.

{Disc} - The disc is part of the trim and is in cast iron, steel or stainless steel. On the back face there is a threaded spigot for attachment to the hinge arm by a nut and split pin.

{Hinge} - The hinge is in cast steel or stainless steel.

{Hinge Pin} - The hinge pin is part of the trim, in cast steel or stainless steel and is machined from ground bar. The pin can be easily removed for maintenance of the valve.

{Bolting} – Bonnet studs and nuts are manufactured from alloy steel.

{Seat Ring} -The seat ring is in brass, alloy steel, or stainless steel and is part of the trim. Its bore is notched to easy installation and dismantling. Special attention is given to the seating surface which is ground and lapped, for a perfectly tight seal. Welded-in seat ring may be supplied upon request.

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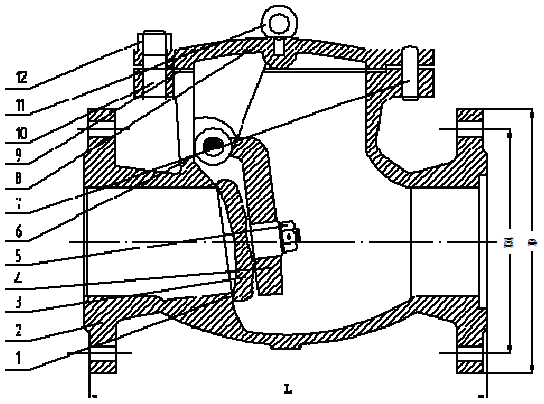
PARTS LIST AND MATERIAL

No.	Parts Name	Material
1	Seat Ring	Brass/Bronze/Alloy Steel/Stainless Steel
2	Body	Cast Iron/Ductile Iron/Carbon Steel/S.S.
3	Hinge	Cast Iron/Ductile Iron/Carbon Steel/S.S.
4	Disc	Cast Iron/Ductile Iron/Carbon Steel/S.S.
5	Hinge Nut	Alloy Steel/Stainless Steel
6	Hinge Pin	Alloy Steel/Stainless Steel
7	Bolt	Alloy Steel/Stainless Steel
8	Bonnet	Cast Iron/Ductile Iron/Carbon Steel/S.S.
9	Gasket	Stainless Steel+Graphite
10	Bonnet Bolt	Alloy Steel/Stainless Steel
11	Eye Bolt	Carbon Steel/Alloy Steel
12	Bonnet Nut	Alloy Steel/Stainless Steel

*More material specifications are available on request.



DIMENSION

DN	NPS	L						
(mm)	(inch)	PN16	PN25	PN40	150 lb	300 lb	600 lb	900 lb
50	2	230	230	230	203	267	292	368
80	3	310	310	310	241	318	356	381
100	4	350	350	350	292	356	432	457
150	6	480	480	480	356	444	559	610
200	8	500	550	550	495	533	660	737
250	10	550	650	650	622	622	787	838
300	12	650	750	750	698	711	838	965
350	14	750	850	850	787	838	889	1029
400	16	850	950	950	864	864	991	1130
500	20	1025	1150	/	978	1016	1194	1321
600	24	/	/	/	1295	1346	1397	1549
650	26	/	/	/	1295	1346	/	/
700	28	/	/	/	1448	1499	/	/
750	30	/	/	/	1524	1594	/	/

*Face to face dimensions (L) herein are according to ASME B16.10.

*Flange dimensions refer to Catalogue of Accessory: Series 8 – Flange.

*More dimension specifications are available on request.

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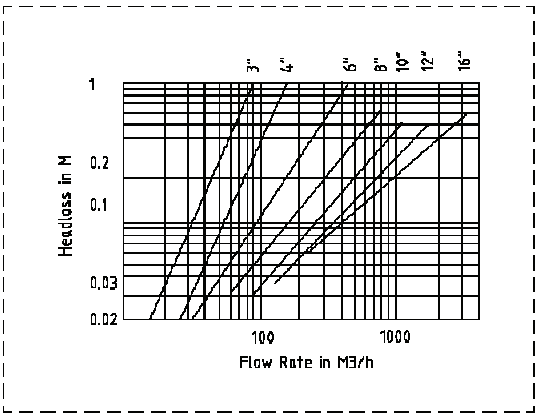
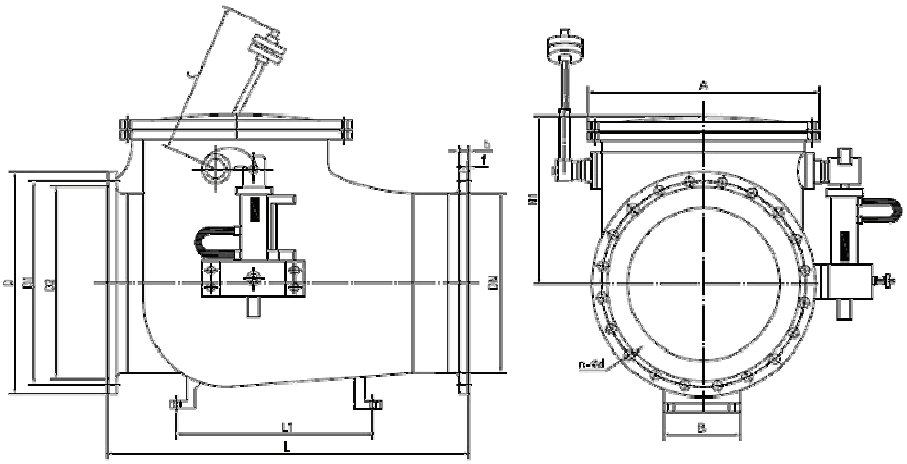
OPTIONAL PARTS

*** Counter Weight** – Counter weights are normally specified on the following check valve application: in vertical flow down to insure clapper closure in, low flow conditions to counterbalance clapper weight and reduce pressure loss; critical flow conditions where reduced closure time is provided by the counterweight assisting closure.

*** Oil Cushion** –Oil cushions or Dashpots are designed to give the customer control over the opening and closing speeds of the valve, which can be very helpful in eliminating down line surges and valve wear. Dashpots are field adjustable and available in both side and bottom mountings. Side mountings can be added later. Both designs utilize a high quality hydraulic cylinder to impact disc movement.



DIMENSION



DN	L	D	D_1	D_2
100	292	220	180	156
150	356	285	240	211
200	495	340	295	266
250	622	405	355	319
300	698	460	410	370
400	914	580	525	480
500	1016	715	650	609
600	1210	840	770	720
700	1500	910	840	794
800	1850	1025	950	901

*Face to face dimensions (L) herein are according to ASME B16.10.

*More dimension specifications are available on request.