

normex

V A L V E S

Product Catalogue

New Generation Valves

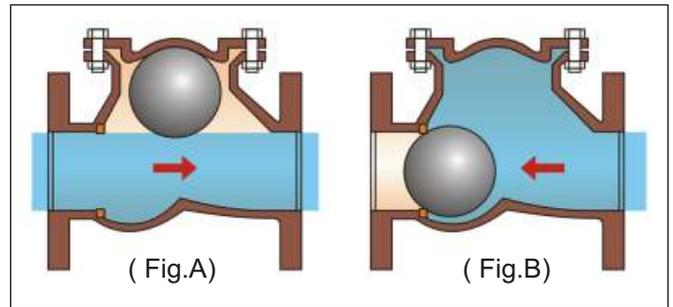


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Principle

The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing.



Features of the Valve

- New generation valve with unique and non-conventional design.
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-disc.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Power saving
- Large solid handling capacity
- Dimensionally conforming with IS 5312
- Installation can be vertically or horizontally
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.



Pressure rating

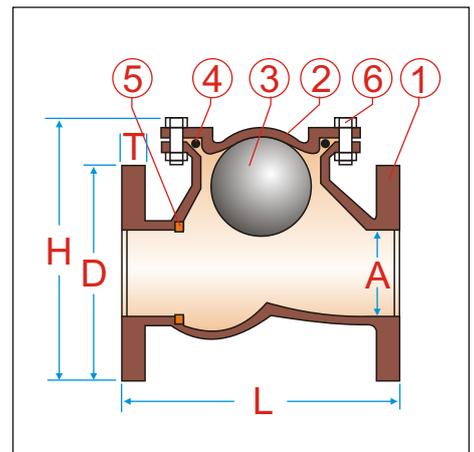
Size 25 - 125 mm = PN 16,
 150 - 300 mm = PN 10, 350mm =PN 6
 Body test : 1.5 times rated Pressure
 Seat test : 1.1 times rated Pressure

Part List / Materials of Construction

Part Description	Standard	Special
1. Body	Cast Iron	St. Steel, Cast Steel
2. Cover	Cast Iron	St. Steel, Cast Steel
3. Ball	Nitrile Reinforced	EPDM, Neoprene
4. Cover Ring	Nitrile Rubber	Butyle, Viton
5. Ball Seat Ring	L. T. Bronze	St. Steel, Hard Rub.
6. Fasteners	Carbon Steel	St. Steel

Dimensions (A = Valve size in mm)

A	25	40	50	65	80	100	125	150	200	250	300	350
D	115	150	165	185	200	220	250	285	340	395	445	527
L	144	174	200	240	260	300	350	400	500	600	700	800
H	115	160	180	210	230	280	340	400	500	570	680	800
T	15	15	16	16	19	20	21	21	22	24	25	29



Principle

The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing.

Features of the Valve

- This valve is offered in both end-threaded design.
- New generation valve with unique and non-conventional design.
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-disc.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Power saving
- Dimensionally conforming with IS 5312
- Installation can be vertically or horizontally
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.



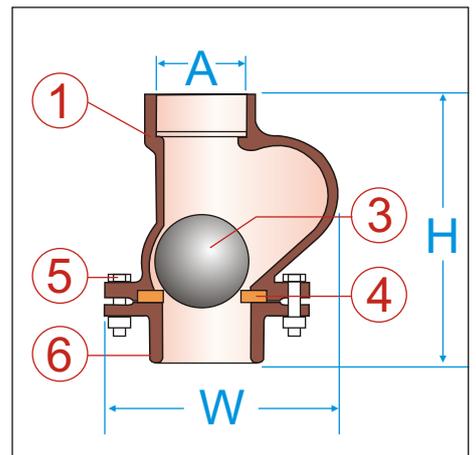
Pressure rating = PN 6

Dimensions (Valve size in mm)

Size(A)	25	40	50	65	80	100
H	100	135	165	200	244	284
W	90	125	148	190	232	275

Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron
2.	Strainer	Cast Iron
3.	Ball	Nitrile Rubber
4.	Seal Ring	Nitrile Rubber
5.	Fastener	Carbon Steel
6.	Adaptor	Cast Iron

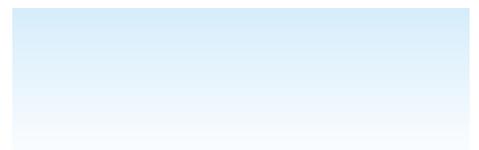
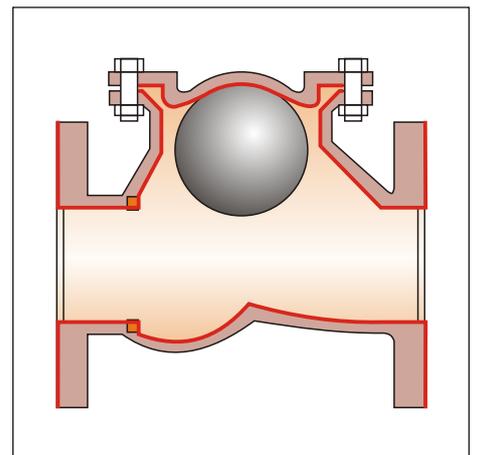
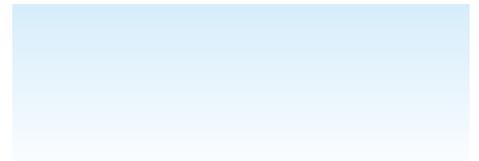


Principle

The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing. The overall dimension of this valve will be similar to our Model B-01 except face to face length more by 6 to 10mm.

Features of the Valve

- New generation valve with unique and non-conventional design.
- This check valve can be offered with inside lining of Rubber/FRP
- Also lining of Ebonite hard, Neoprene, Butyl etc.,
- The selection of elastomer can be offered depending on chemicals/abrasives handled.
- Most suitable valve for handling chemicals/abrasives
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-disc.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Maintenance free
- Power saving
- Large solid handling capacity
- Dimensionally conforming with IS 5312
- Installation can be vertically or horizontally
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.



Principle

The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing.

Features of the Valve

- This valve is offered in one side threaded and other side strainer design.
- New generation valve with unique and non-conventional design.
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-disc.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Power saving
- Large solid handling capacity
- Installation can be vertically or horizontally
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.



Pressure rating

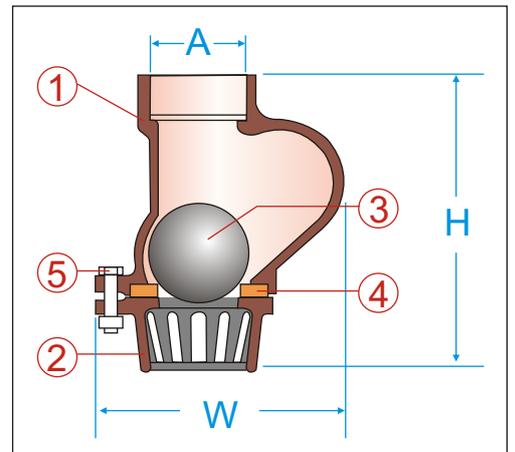
Sizes : 25 – 100 mm, working pressure 6 kg/cm²v
 Sizes : 100, 125 & 150 mm available in flanged top & bottom

Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron
2.	Strainer	Cast Iron
3.	Ball	Nitrile Rubber
4.	Seal Ring	Nitrile Rubber
5.	Fastener	Carbon Steel
6.	Adaptor	Cast Iron

Dimensions (Valve size in mm)

Size(A)	25	40	50	65	80	100
H	100	135	165	200	244	284
W	90	125	148	190	232	275



Principle

The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing.

Features of the Valve

- This valve is offered in one side flanged & strainer to the other side design.
- New generation valve with unique and non-conventional design.
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-disc.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Power saving
- Large solid handling capacity
- Operates silently upto 80 oC

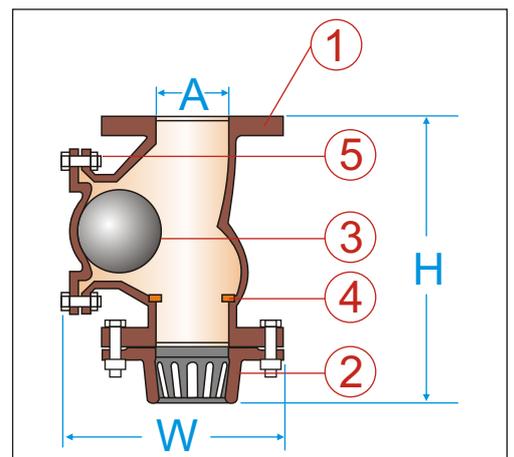


Sizes : 25 – 350 mm

Working Pressure 10/15 kg/cm²

Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron
2.	Strainer	Cast Iron
3.	Ball	Nitrile Rubber
4.	Seal Ring	Nitrile Rubber
5.	Fastener	Carbon Steel
6.	Adaptor	Cast Iron



Dimensions (Valve size in mm)

Size(A)	25	40	50	65	80	100	125	150	200	250	300	350
H	185	225	250	300	330	415	480	545	690	830	970	1100
W	115	160	180	207	230	280	338	400	500	570	680	795

Principle

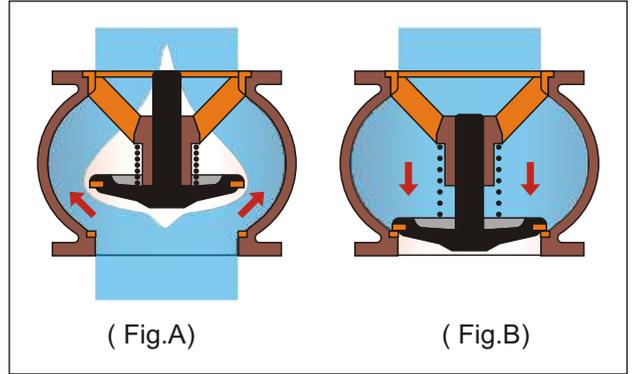
The reinforced rubber ball is the heart of this valve. This ball in the designed path of the valve moves freely and promptly reacts to the ON & OFF of the pump. The ball moves to open position when the pump starts & allows free flow of liquid without any interference. (Fig. A) As the pump stops, the ball seats firmly against the metal seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing

Features of the Valve

- This valve is offered in one side flanged & strainer to the other side design
- Heavy duty foot valve
- Most suitable where suction pressure is on higher side
- Suitable for a very wide range of applications like slurry, sewage, paper, chemical, water supply, agriculture, muddy water, slurry, paper stock, viscous liquid and clear water.
- Robust and very simple mechanism.
- A floating reinforced rubber coated ball is used instead of hinge-pin-seat.
- Highly sensible to arrest flow with perfect sealing.
- Very low head loss
- Non clogging and self cleaning mechanism
- Maintenance free
- Power saving
- Large solid handling capacity
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.

Principle

This is spring loaded hydrodynamic guided closing design. The disc in valve moves upward and specially designed profile of the disc and body gives passage to the media without causing any change in its velocity. This gives the aero/hydrodynamic effect which result in minimum pressure drop (Fig A) When the pump stops, the disc moves backward quickly (Fig B) Due to its long axial guide there is no displacement of the disc while closing. This action including its concentric machining results in perfect sealing. Due to its perfectly designed spring, the valve is closed before the back flow starts and the water hammer is eliminated. This is a latest technology for check valve in India.



Features of the Valve

- This valve is offered in both side flanged design
- Working principal hydrodynamic guided closing
- The closing mechanism is guided and backed with return spring for quick closing and opening.
- Due to aero/hydro dynamic effect water hammer is eliminated.
- Very low pressure loss.
- Most suitable for clear liquids and air.
- The concentric machining results in to perfect sealing
- Suitable for mounting vertically, horizontally or angular
- Silent operation.
- Operates silently up to 80 oC
- This valve has a quality for withstanding consistent performance and longer life.



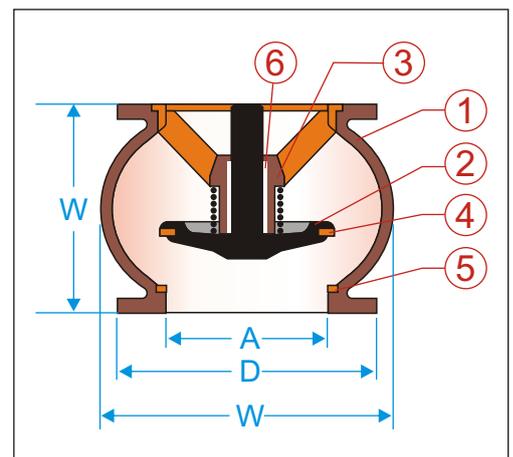
Pressure rating

Size 150 - 300 mm = PN 16
 350 mm = PN 16

Body test : 1.5 times rated Pressure
 Seat test : 1.1 times rated Pressure

Dimensions

Size(A) (mm)	D	W	H
40	150	85	85
50	165	105	100
65	185	128	120
80	200	156	140
100	220	194	170
150	285	264	230
200	340	346	290
250	406	430	355
300	457	500	398
350	527	600	475
400	578	686	560

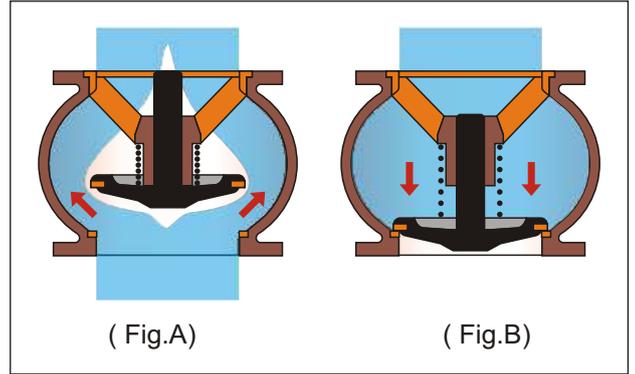


Part List / Materials of Construction

Part	Description	Standard	Special
1	Body	Cast Iron	Cast Steel / St. Steel
2	Closing disc	S. G. Iron	Cast Steel / St. Steel
3	Guide	Cast Iron	Cast Steel / St. Steel
4	Sealing ring	Nitrile Rubber	Neoprene, Viton, Teflon etc.
5	Seat ring	L. T. Bronze	St. Steel / Teflon (PTFE)
6	Guide brush	L. T. Bronze	St. Steel / Teflon (PTFE)

Principle

This is spring loaded hydrodynamic guided closing design. The disc in valve moves upward and specially designed profile of the disc and body gives passage to the media without causing any change in its velocity. This gives the aero/hydrodynamic effect which result in minimum pressure drop (Fig A) When the pump stops, the disc moves backward quickly (Fig B) Due to its long axial guide there is no displacement of the disc while closing. This action including its concentric machining results in perfect sealing. Due to its perfectly designed spring, the valve is closed before the back flow starts and the water hammer is eliminated. This is a latest technology for check valve in India.



Features of the Valve

- This valve is offered in one side flanged & strainer to the other side design
- Working principal hydrodynamic guided closing
- The closing mechanism is guided and backed with return spring for quick closing and opening.
- Due to aero/hydro dynamic effect water hammer is eliminated.
- Very low pressure loss.
- Most suitable for clear liquids.
- The concentric machining results in to perfect sealing.
- Silent operation
- Suitable for low suction head.
- Suitable for vertical and slanted position.
- Operates silently upto 80 oC
- This valve has a quality for withstanding consistent performance and longer life.

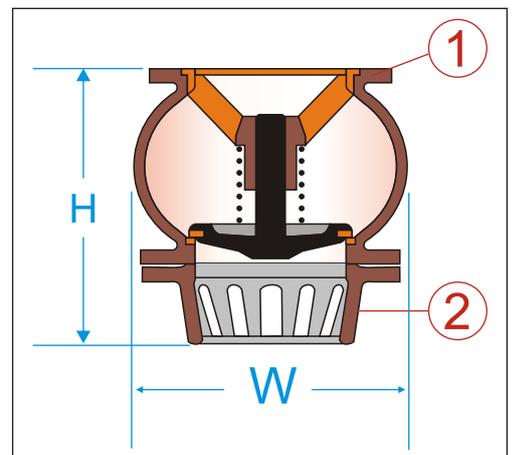


Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron
2.	Strainer	Cast Iron

Dimensions (Valve size in mm)

Size	40	50	65	80	100	150	200	250	300	350	400
H	135	150	180	210	290	375	480	585	670	775	900
W	85	105	128	156	194	264	346	430	500	600	686



Selection Chart

Parameters									
		B-01	B-02	B-04	B-05	B-06	H-01	H-04	
Liquid	Clear	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Loaded	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Gas / Air	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Corrosive	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Pressure Kg/cm ²	Operating	25-125	15	15	6	15	6	15/25*	15/25*
		150-350	10	10	-	10	-	10/20*	10/20*
		350-400	6	6	-	6	-	6/12*	6
	Test	25-125	22	22	9	22	9	22/40*	22/40*
		150-350	15	15	-	15	-	15/30*	15/30*
		350-400	9	9	-	9	-	9/18*	9
Temp °C	Operating	80	80	80	80	80	80/120*	80/120*	
	Maximum	100	100	100	100	100	100/200*	100/200*	
Position	Horizontal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Vertical	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	Angular	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
End Conn.	Flanged	25-350	25-350	100-150	25-350	100-150	40-400	40-400	
	Threaded	<input type="checkbox"/>	<input type="checkbox"/>	25-100	<input type="checkbox"/>	25-100	<input type="checkbox"/>	<input type="checkbox"/>	

Recommended Not Recommended * Special Metal

Quality Features

- ♦ Excellent flow control in quarter turn operation.
- ♦ Compact, space saving design.
- ♦ Bi-directional 100% tight shut off.
- ♦ Low weight, low maintenance, long service life.
- ♦ Easy automation / retrofit possible.
- ♦ Stream lined valve disc for lower pressure drop.
- ♦ Both shafts mounted in bearing supports for easy operating torques.
- ♦ Replaceable / Bonded seat options.
- ♦ Suitable for mounting between all standard flanges.
- ♦ Gasket packing not required to install between flanges.

Applications

- ♦ Water treatment plants
- ♦ Water distribution systems
- ♦ Fire fighting systems
- ♦ Power stations
- ♦ Irrigation
- ♦ Chemical Industries
- ♦ Steel mills
- ♦ Sugar factories / Breweries
- ♦ Sewage / Effluent treatment
- ♦ Process Industries
- ♦ Seawater & Brine pumping
- ♦ Food Processing Industries
- ♦ Mining Industries
- ♦ Petrochemical Industries

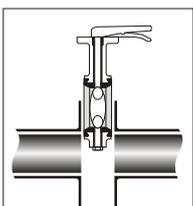


Actuator Mounted

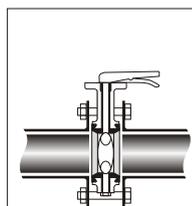


Gear Box Mounted

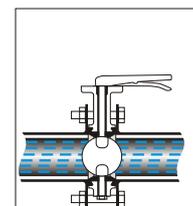
Installation Procedure



1 Keep the mating flanges well apart so that the valve can be inserted freely between the gap of mating flanges. The valve disc should be in semi-open position, but ensure that it does not protrude out of the valve body.

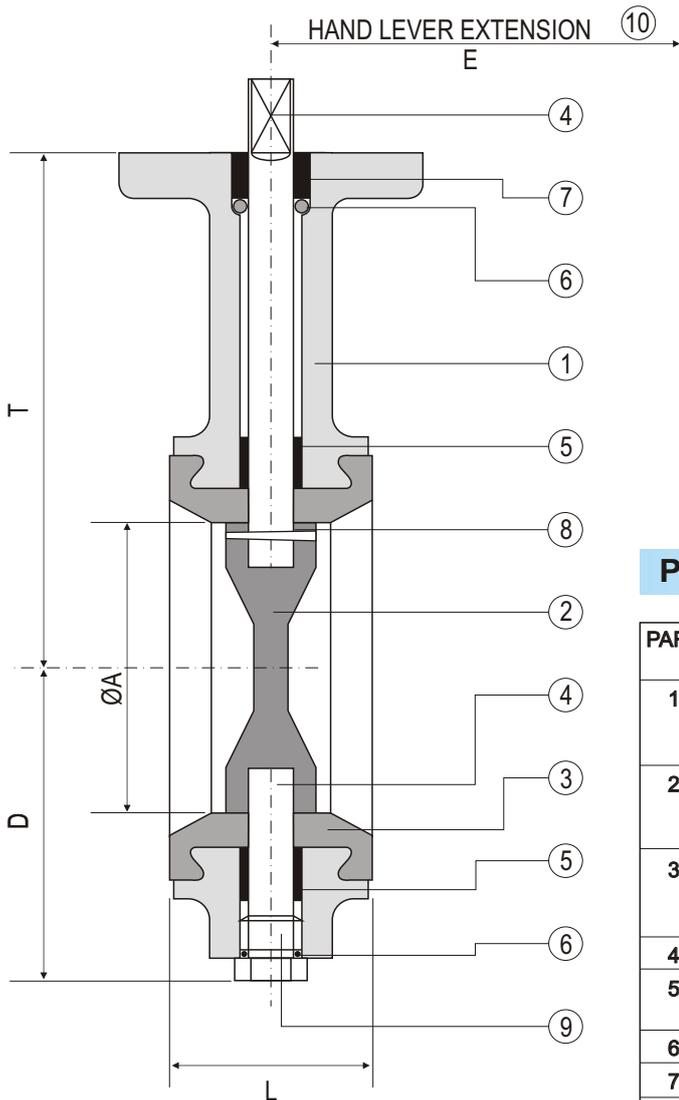


2 Insert the valve between the flanges. Insert the bolts firstly passing through eye on valve on top side to support the valve and then insert the other bolts touching the sides of the valve. Select the bolt length such that it connects the mating flanges and valve can be tightened between the two flanges.



3 Centralize the valve referring the O.D.. of flange and tighten the bolts evenly. packing gaskets are not required as they are inherent on valve face. Open /close the valve and now it is ready for service.

IMP : Butterfly valves should be stocked / transported in semi-open condition (and not in fully closed position.)
Also ensure the disk does not protrude out of the valve face / body.



Parts List & Materials

PART	DESCRIPTION	STD. MODE OF CONSTRUCTION	OPTIONS
1	BODY	Cast Iron, GG - 25/ IS - 210 FG - 260/ BS - 1452 Gr. 260	SG Iron, GGG 40 Cast Steel (WCB) Stainless Steel CF8/CF8M
2	DISC	SG Iron, GGG 40 IS - 1865 SG 400/12/ BS - 2789 Gr. 240/12	Cast Steel (WCB) Stainless Steel CF8/CF8M Aluminium Bronze IS 305 Gr2
3	SEAT	Black Nitrile	EPDM, Neoprene, Viton, Silicon Hypalon or as per customer's Requirements.
4	SHAFTS	AISI410	AISI 304 / AISI 316
5	BEARING	Self lubricating Phosphor Bronze	PTFE
6	'O' RINGS	Nitrile	EPDM, Neoprene
7	BUSH	Polyacetal (Delrin)	PTFE
8	TAPER PIN	AISI 410/304	AISI 316
9	PLUG	Carbon Steel	--
10	HAND LEVER	MS	CI / SGI / SS

Technical Data

PRESSURE RATING	PN 10 & PN 16
PRESSURE TESTING	a) Body : 1.5 x PN b) Seat : 1.1 x PN
TEMPERATURE	(-) 40°C to 200°C
FACE TO FACE DIMENSION	ISO - 5752 / IS - 13095 / BS - 5155
TO SUIT FLANGES DRILLED AS PER	IS, ANSI, BS, DIN Standards
OPERATION	Bidirectional
PAINTING	Epoxy coated

Ordering Data

1. Size of valve.
2. M.O.C. for body, disc & seat.
3. Details of flow medium i.e., name, temperature, pressure.
4. If any specific change to standard materials of other parts.
5. Operation manual / Gearbox / Actuator (give details of Actuator).

Dimension Chart

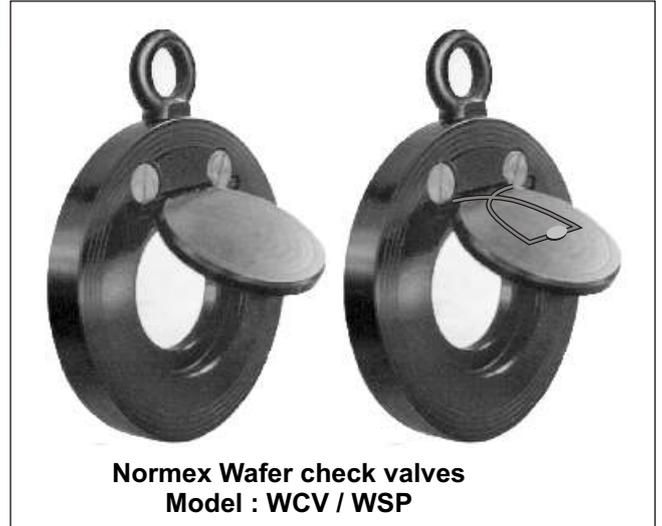
Size (DN)	A	L	D	T	E	Wt(Kg)
40	33	76	103	240	2.2	
50	43	82	113	240	2.7	
65	46	88	121	240	3.2	
80	46	96	129	240	3.5	
100	52	110	147	240	5.0	
125	56	122	160	240	6.3	
150	56	148	170	330	8.5	
200	60	174	200	330	12.0	
250	68	212	245	500	22.9	
300	78	239	270		29.5	
350	78					
400	100	298	345			
450	108	326	373			

Quoted on request

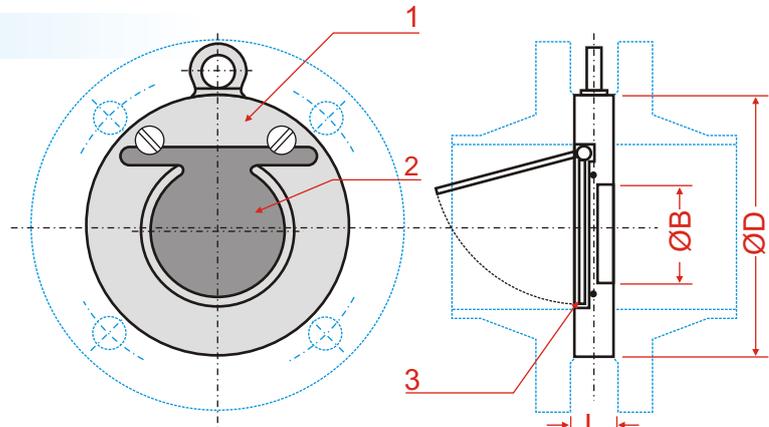
Note : Size up to 250 mm with H/L 300 mm and above, with gear box

Salient Features

- Sturdy but simple design.
- 100% leak proof
- Short length - less space required.
- Light weight.
- Lower pressure drop across the valve.
- Low opening & closing pressures.
- Wide range of materials, temperature & pressure ratings
- Efficient flow characteristics.
- Can be mounted horizontally & vertically.
- Highly economical.
- Epoxy coating over the entire surface.


Dimension Chart

SizeØ		BØ	DØ	L (for Type WCV)
mm	in			
40	1.5	22	81	16
50	2	30	96	16
65	2.5	40	109	16
80	3	52	130	16
100	4	71	160	16
125	5	93	190	16
150	6	114	213	19
200	8	157	270	28
250	10	195	327	28
300	12	230	377	38
350	14	270	437	41
400	16	310	487	51
450	18	360	532	51
500	20	406	585	60
600	24	490	687	70


Part List / Materials of Construction

Part	Standard Material	Optional Material
1. Body	CI/MS	CS, SS
2. Disc	MS	SS
3. 'O' ring	Nitrile	EPDM, Neoprene, Viton

Technical Data

Pressure Rating	PN 10 & PN 16
Types	Without spring (WCV) & spring loaded (WSP)
Sizes	40mm to 600mm
PN rating	PN10, PN16,
Temperatur	20*.C to 220'C
Installation	Horizontal /Vertical
Flanges	Between any standard flanges

Installation

- 1) Normex Wafer Check valves can be installed between any two standard flanges.
- 2) The outside diameter of valve is designed considering the minimum P.C.D. available in various flange standards.
- 3) The valve should be centered between the outside diameter of the pipe flanges simultaneously while tightening the bolts.
- 4) Recheck that valve outside diameter is equidistant to flange diameter on all sides and fully tighten the bolts.