



**normex**  
VALVES PVT. LTD.



## About us

Incorporated in 1987, Normex Valves Pvt. Ltd. (NVPL) offers new generation industrial valves in fluid control industry. NVPL was promoted by the professionals in valve industry, with an intention to offer next generation products. NVPL is a complete team with core competency that manifests passion, commitment and excellence in every process of business operations.

NVPL has built its own in-house capacities to offer complete facilities for valve designing, engineering, machining, assembly, testing & quality assurance and prompt support to customers. Located at Bhosari, Pune (India), one of the most prominent industrial hubs in India, NVPL is equipped with state-of-the art manufacturing facilities, which include sophisticated machines like heavy duty Bombay lathe, Radial drilling machine, hydraulic rubber press, hydraulic test rig and allied machinery. These are backed up by dedicated tooling to consistently achieve component dimensions within the prescribed tolerances.

NVPL had been accredited with three patents for unique design of Ball Type check valves and foot valves, which are truly regarded as next generation valves. Accreditation of ISO 9001 and Bureau of Indian Standards (BIS) as well as ISI certification and practising the stipulations thereof, has helped us evolve and establish the best manufacturing processes, do meticulous planning and achieve manufacturing excellence in true sense.

Our products, on the strength of precision and reliability in performance, enjoy wide acceptance and customer confidence in various market segments. Many of the renowned corporate giants rely only on Normex brand. Many segments like Fire Fighting, Utility Industry etc. also accepted and experienced the perfection in performance of the products. Normex products are employed in the wide range of Industries like Water Pumping, Supply and Distribution, ETP / STP, Power Plants, Steel Mills, Sewage Pumping, Mining, Agriculture / Irrigation, HVAC, Process & Chemical Industries, Sugar etc. Most of the users insist to have Normex valves for their highly reliable performance and long life.

It is easy to say, wherever there is a pump, Normex Valves have an application.

In order to offer off-the-shelf service, NVPL has developed wide marketing network in India and overseas.

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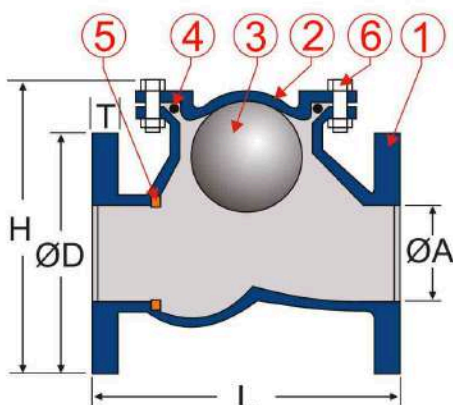


## Ball Check Valve (Double Flanged) : Model B-01



### Features of the Valve

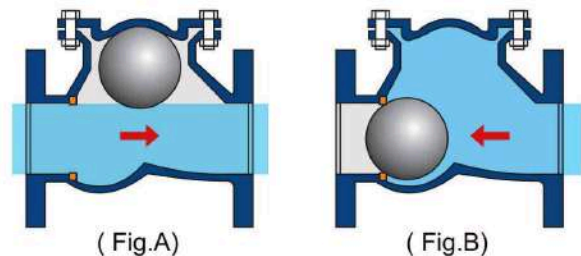
- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore, undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Dimensionally conforming with IS : 5312-1984/DIN 3202F6 / EN 558-1-548
- Can be installed horizontally as well as vertically.
- Energy saving as above
- Consistent performance and longer life.



- Note : \*W : Width of Valve (not shown in drawing)  
Overall dimensions to be as L x W x H
- The valve flanges to be drilled as per customers requirements.
  - Flange diameter shown as per IS 1538 / DIN 2532

### Principle

The reinforced rubber ball is the heart of this valve. This ball in the valve moves freely and promptly reacts to the START & STOP 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.



### Pressure rating

Size	Rating MPa/(kg/cm <sup>2</sup> or Bar) For CI Construction	Rating MPa/(kg/cm <sup>2</sup> or Bar) For DI(SGI), WCB, SS Construction
25 - 200NB	PN 1.6 / (16)	PN 2.0 / (20)
250 - 300NB	PN 1.0 / (10)	PN 1.6 / (16)
350NB	PN 0.6 / (6)	PN 1.0 / (10)

(For CI Construction)

### Part List / Materials of Construction

Part	Description	Standard	Special
1.	Body	Cast Iron IS210, FG260/GG25	DI (SGI)/WCB/SS
2.	Cover	Cast Iron IS210, FG260/GG25	DI (SGI)/WCB/SS
3.	Ball	Nitrile Rubbercoated	EPDM, Neoprene
4.	Cover Ring	Nitrile ASTM D2000	Viton
5.	Seat Ring	SS 304	L.T.Bronze
6.	Fasteners	Carbon Steel CL4	St. Steel

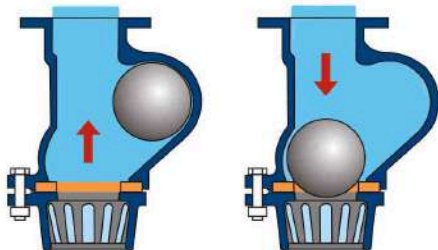
### Dimensions (ØA = Valve size in mm NB)

ØA	25	40	50	65	80	100	125	150	200	250	300	350
ØD	115	150	165	185	200	220	250	285	340	395	445	505
L	144	175	200	240	260	300	350	400	500	600	700	800
H	125	170	188	222	242	285	345	410	510	600	700	835
T (Min)	15	16	17	20	20	22	22	27	28	28	28	32
*W	115	150	165	185	200	220	280	310	375	433	501	540
App wt.(kg)	4.5	7	9	14	20	25	50	60	105	165	223	310

## Ball Foot Valve (Flanged) : Model B-05 (N)

### Principle

The reinforced rubber ball is the heart of this valve. This ball in 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



(Fig.A)

(Fig.B)

### Features of the Ball Type Foot Valve

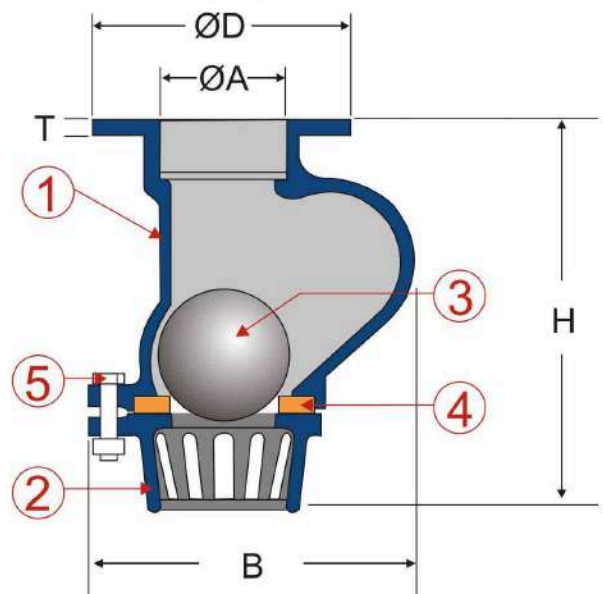
- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore , undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Energy saving as above
- Consistent performance and longer life.

### Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron - IS210, FG260 / GG25
2.	Strainer	Cast Iron - IS210, FG260 / GG25
3.	Ball	Nitrile Rubber Coated
4.	Seat Ring	50-65 NB: Nitrile Rubber 80-200 NB : SS304
5.	Fastener	SS202 / Carbon Steel CL4

### Dimensions (ØA = Valve size in mm NB)

ØA	50	65	80	100	125	150	200
ØD	165	185	200	220	250	285	340
H	185	235	275	312	370	440	540
B	170	205	235	275	335	400	495
T	15	16	18	18	18	18	22
*W	167	186	208	222	255	295	378
App. Wt (kg)	5	8	11	16	24	41	82



Note : \*W : Width of Valve (not shown in drawing)

Overall dimensions to be as B x W x H

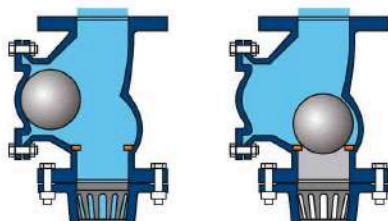
- The valve flanges to be drilled as per customers requirements.
- Flange diameter shown as per IS 1538 / DIN 2532
- We can offer MOC in DI/SGI

### Pressure rating

Size	Rating (MPa)	Rating (kg/cm <sup>2</sup> )/(Bar)
50 - 200NB	PN 0.6	PN 6

(For CI Construction)





(Fig.A)

(Fig.B)

### Pressure rating

Size	Rating (MPa)	Rating (Kg/Cm <sup>2</sup> )/(Bar)
25 - 200NB	PN 1.6	PN 16
250 - 300NB	PN 1.0	PN 10
350 NB	PN 0.6	PN 6

(For CI Construction)

### Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron - IS210, FG260 / GG25
2.	Cover	Cast Iron - IS210, FG260 / GG25
3.	Ball	Nitrile Rubber Coated
4.	Cover Ring	Nitrile ASTM D2000
5.	Seat Ring	SS 304 / L.T.Bronze/IS318-LTB2
6.	Fastener	Carbon Steel CL4
7.	Strainer	Cast Iron - IS210, FG260 / GG25

### Dimensions (ØA = Valve size in mm NB)

ØA	25	40	50	65	80	100	125	150	200	250	300	350
ØD	115	150	165	185	200	220	250	285	340	395	445	505
H	187	218	248	304	324	374	426	497	620	755	855	990
B	125	170	188	222	242	285	345	410	510	600	700	835
T (Min)	15	16	17	20	20	22	22	27	28	28	28	32
*W	115	150	165	185	200	220	280	310	375	433	500	540
App wt.(kg)	5	7.5	10	16	22	28	54	67	114	182	240	335

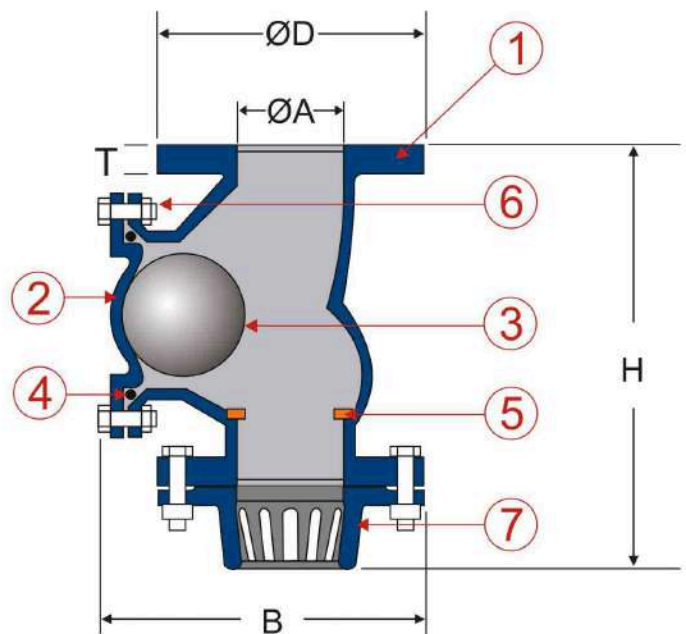
## Ball Foot Valve (Flanged) : Model B-05

### Principle

The reinforced rubber ball is the heart of this valve. This ball in 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

- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore , undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Energy saving as above
- Consistent performance and longer life.



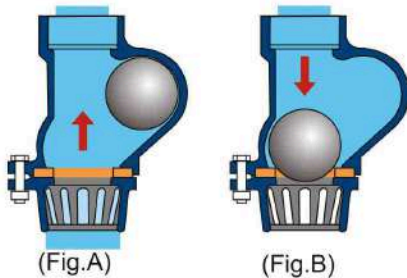
Note : \*W : Width of Valve (not shown in drawing)

Overall dimensions to be as B x W x H

- The valve flanges to be drilled as per customers requirements.
- Flange diameter shown as per IS 1538 / DIN 2532.
- We can offer MOC in DI/SGL.

We Recommend to use B05 (N) for sizes upto 200mm for all general application for foot Valve

## Ball Foot Valve (Threaded) : Model B-04



### Principle

The reinforced rubber ball is the heart of this valve. This ball in 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

- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore , undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Energy saving as above
- Consistent performance and longer life.

### Pressure rating

Size	Rating (MPa)	Rating (Kg/Cm <sup>2</sup> )/(Bar)
25 - 100NB	PN 0.6	PN 6

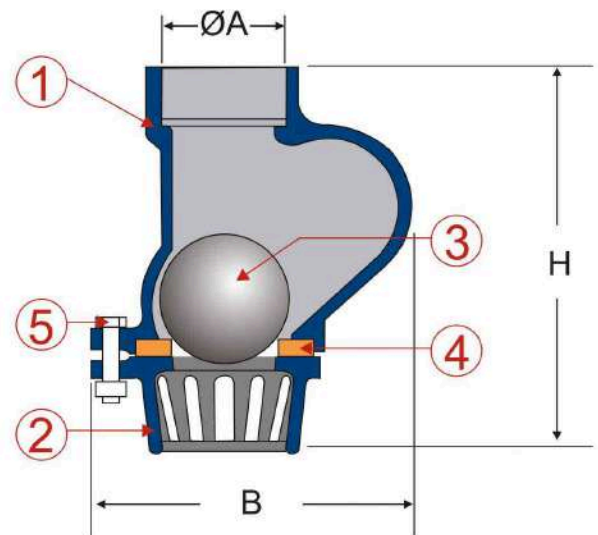
(For CI Construction)

### Part List / Materials of Construction

Part	Description	Material
1.	Body	Cast Iron - IS210, FG260 / GG25
2.	Strainer	Cast Iron - IS210, FG260 / GG25
3.	Ball	Nitrile Rubber Coated
4.	Seat Ring	25-65NB : Nitrile Rubber 80-100 NB : SS304
5.	Fastener	SS202 / Carbon Steel CL4

### Dimensions (ØA = Valve size in mm NB)

ØA	25	32	40	50	65	80	100
H	145	147	156	183	232	275	305
B	115	116	125	132	168	202	254
*W	96	96	96	120	148	138	185
App. Wt.(kg)	1.6	1.7	1.8	3	6	8	13



Note : \*W : Width of Valve (not shown in drawing)  
Overall dimensions to be as B x W x H  
● We can offer MOC in DI/SGL.



## Ball Check Valve (Threaded) : Model B-06



### Features of the Valve

- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore , undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Can be installed horizontally as well as vertically.
- Energy saving as above
- Consistent performance and longer life.

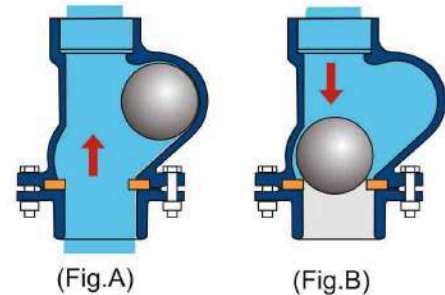
### Part List / Materials of Construction

Part Description	Material
1. Body	Cast Iron - IS210, FG260 / GG25
2. Adaptor	Cast Iron - IS210, FG260 / GG25
3. Ball	Nitrile Rubber Coated
4. Seat Ring	25-65NB : Nitrile Rubber / 80-100 NB : SS304
5. Fastener	SS202

Note : \*W : Width of Valve (not shown in drawing)  
Overall dimensions to be as B x W x H  
● We can offer MOC in DI/SGL.

### Principle

The reinforced rubber ball is the heart of this valve. This ball in 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.



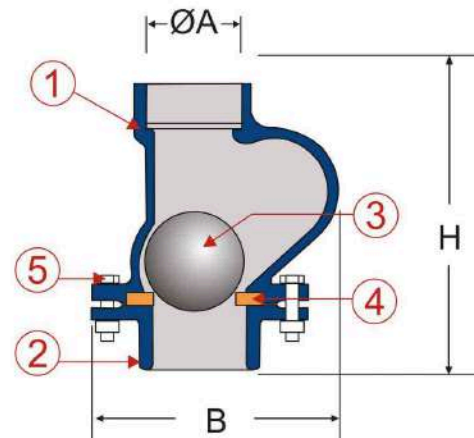
### Pressure rating

Size	Rating (MPa)	Rating (kg/cm <sup>2</sup> )/(Bar)
25 - 100NB	PN 0.6	PN 6

(For CI Construction)

### Dimensions (ØA = Valve size in mm NB)

ØA	25	32	40	50	65	80	100
H	124	132	147	171	212	265	294
B	115	116	125	132	168	202	254
*W	96	96	101	120	148	138	181
App. Wt.(kg)	1.5	1.9	2	3	6	8	13





**Normex Butterfly Valve** (Available with  mark)

IS:13095  
CML:7637789



IS:13095  
  
CML:7637789

**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
- Drip Irrigation / Agriculture
- Chemical Industries
- Steel mills
- Sugar factories / Breweries
- Sewage / Effluent treatment
- Process Industries
- Seawater & Brine pumping
- Food Processing Industries
- Mining Industries
- Petrochemical Industries



Actuator Mounted

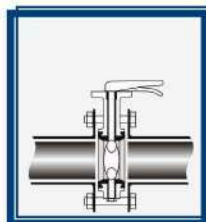


Gear Box Mounted

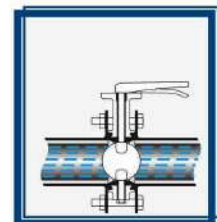
**Installation Procedure**



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.

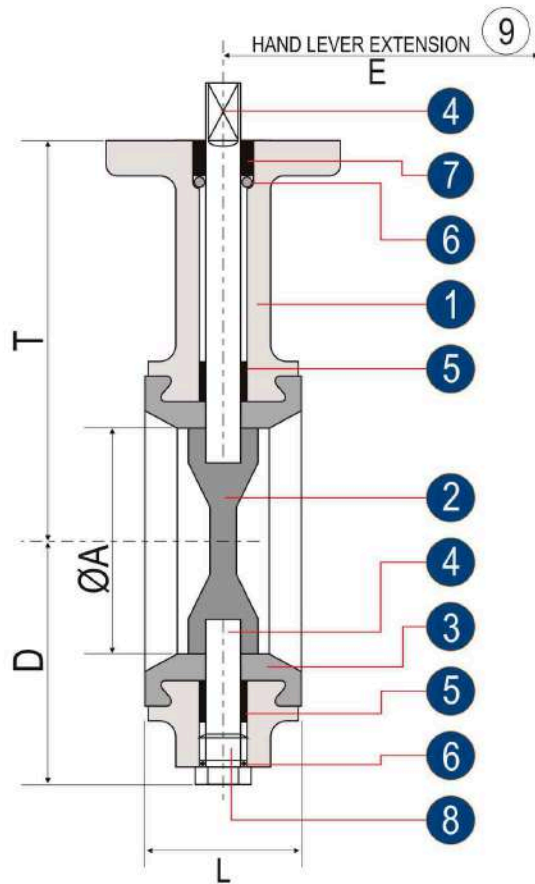


2 Insert the valve between the flanges. Insert the bolts firstly passing through eye on valve on top side to support the valve and then insert the other bolts touching the sides of the valve. Select the bolt length such that it connects the mating flanges and valve can be tightened between the two flanges.



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.



### Ordering Data

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

### Technical Data

PRESSURE RATING	PN1.6 / 1.0 MPa (16/10 bar)
PRESSURE TESTING	a) Body : 1.5 x PN b) Seat : 1.1xPN
TEMPERATURE	(-)25°C to 150°C
FACE TO FACE DIMENSION	ISO - 5752 / IS -1 3095 / BS-5155
TO SUIT FLANGES DRILLED AS PER	IS, ANSI, BS, DIN Standards
OPERATION	Bidirectional
PAINTING	Epoxy coated

### Dimension Chart

ØA	40	50	65	80	100	125	150	200	250	300	350	400	450
L	33	43	46	46	52	56	56	60	68	78	78	100	108
D	55.5	64	72.5	79.5	99	115	128	156	212	239	260	298	326
T	101	111	121	128	147	159	173	199	248	270	321	345	373
E	185	185	250	250	250	250	355	355	500	-	-	-	-
App. Wt.(kg)	2.1	2.8	3.4	3.6	4.6	6.3	8.7	12.2	25	32	64.5	69.4	-

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

### Parts List & Materials

Part	Description	STD. MODE OF CONSTRUCTION	OPTIONS
1.	Body	Cast Iron, GG - 25 / IS -210 - FG-260 / BS-1452Gr. 260	SG Iron (Ductile Iron)
2.	DISC	SG Iron (Ductile Iron) :GGG 40 / IS-1865, SG 400 / 15 / BS-2789 Gr. 240/12	CF8 / CF8M
3.	SEAT	EPDM	Nitrile / Neoprene
4.	SHAFTS	AISI410	AISI304 / AISI316
5.	BEARING	Sliding Bearing MU	PTFE
6.	'O' RINGS	EPDM	Nitrile / Neoprene
7.	BUSH	Polyacetal (Delrin)	PTFE
8.	PLUG	Nylon / MS (Size : 250 & above)	-
9.	HAND LEVER	MS	CI / SGI / SS



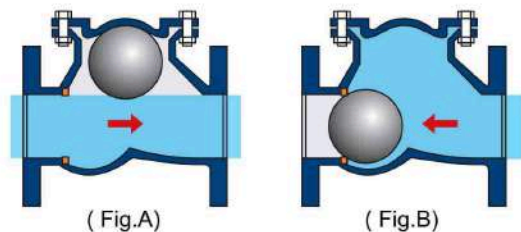
## Rubber Lined/Ebonite Hard Ball Check Valve : Model B-02

### 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 & backpressure of the liquid (Fig. B) This results in DROPLESS sealing. In this Rubber Lined Ball Check Valve, the entire wetted area inside the valve is lined with rubber so nowhere metal part comes in contact with fluid. This feature is highly effective in pumping of corrosive & erosive fluids. 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

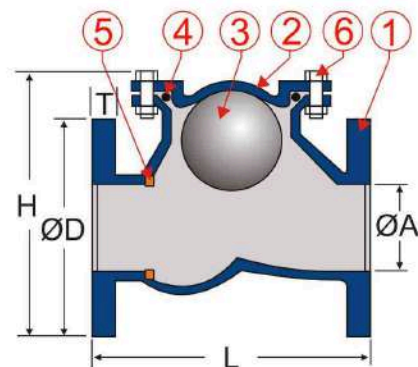
- Ball type design gives 100% leak proof sealing.
- Lower Head Loss / Pressure drop across the valve.
- Full bore, undisturbed flow, no obstruction to liquid flow.
- Reduce frictional losses.
- No mechanism involved. Virtually maintenance free.
- Non-clogging & self cleaning mechanism due to circular shape of ball.
- Can be installed horizontally as well as vertically.
- Energy saving as above
- Consistent performance and longer life.
- Dimensionally conforming with IS 5312. Length more by 6 to 10mm due to rubber lining on flange face.



### Pressure rating

Size	Rating (MPa)	Rating (kg/cm <sup>2</sup> )/(Bar)
25 - 200NB	PN 1.6	PN 16
250 - 300NB	PN 1.0	PN 10
350NB	PN 0.6	PN 6

(For CI Construction)



Note : \*W : Width of Valve (not shown in drawing)

Overall dimensions to be as L x W x H

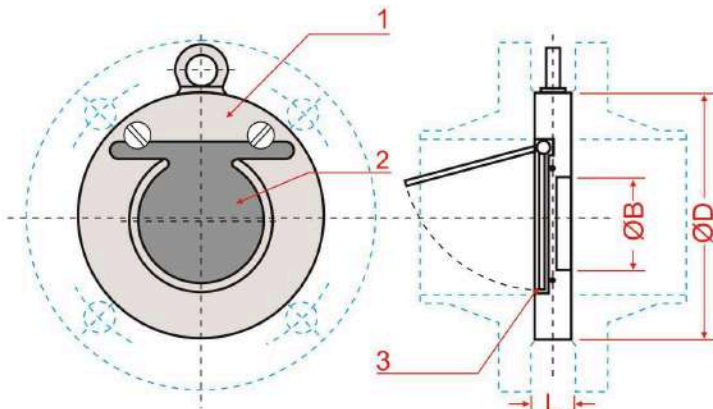
- The valve flanges to be drilled as per customers requirements.
- Flange diameter shown as per IS 1538 / DIN 2532
- This length is without lining. With lining, total length shall be 6-12mm more and flange thickness 3-6mm more depending on lining thickness.

### Part List / Materials of Construction

Part	Description	Standard	Special
1.	Body	Cast Iron IS210, FG260 (min) / GG25	SGI, Cast Steel
2.	Cover	Cast Iron IS210, FG260 (min) / GG25	SGI, Cast Steel
3.	Ball	Nitrile Rubbercoated	EPDM, Neoprene
4.	Cover Ring	Nitrile ASTM D2000	EPDM, Neoprene
5.	Seat Ring	Integral of rubber	
6.	Fasteners	Carbon Steel CL4	St. Steel
7.	Rubber Lining	Ebonite Rubber	

### Dimensions (ØA = Valve size in mm NB)

ØA	25	40	50	65	80	100	125	150	200	250	300	350
ØD	115	150	165	185	200	220	250	285	340	395	445	505
L	144	175	200	240	260	300	350	400	500	600	700	800
H	125	170	188	222	242	285	345	410	510	600	700	835
T (Min)	15	16	17	20	20	22	22	27	28	28	28	32
*W	115	150	165	185	200	220	280	310	375	433	501	540
App wt.(kg)	4.5	7	9	14	20	25	50	60	105	165	223	310



## Wafer Check Valves Model : WCV

### Salient Features

- Sturdy but simple design.
- 100% leak proof
- Short length - less space required.
- Lightweight.
- 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

Size				
mm	in	BØ	DØ	L
25	1.0	15	64	20
40	1.5	22	81	20
50	2	30	96	20
65	2.5	40	109	20
80	3	52	130	20
100	4	71	160	20
125	5	93	190	20
150	6	114	213	20
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

### Part List / Materials of Construction

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

### Technical Data

<b>PRESSURE RATING</b>	PN10&PN16
<b>Types</b>	Without spring (WCV)
<b>Sizes</b>	40mm to 400mm
<b>PN rating</b>	PN1.6
<b>Temperature</b>	(-)20°C to 150°C
<b>Installation</b>	Horizontal /Vertical
<b>Flanges</b>	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.



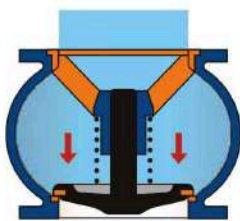
## Silent Check Valve : Model H - 01

### 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 precisely 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.



(Fig.A)



(Fig.B)

### Pressure rating

Size	Rating (MPa)	Rating (kg/cm <sup>2</sup> )/(Bar)
40 - 100NB	PN 1.6	PN 16
150 - 300NB	PN 1.0	PN 10
350 - 400NB	PN 0.6	PN 6

(For CI Construction)

125mm Size not available

### Dimensions (ØA = Valve size in mm NB)

Size ØA (NB)	40	50	65	80	100	150	200	250	300	350	400
ØD	150	165	185	200	220	285	340	395	445	505	565
L	86	102	120	140	174	230	290	365	398	480	580
B	150	165	185	203	229	307	350	430	500	600	686
T	13	16	16	20	22	22	22	25	28	30	30
*W	150	165	185	203	229	307	350	430	500	600	686
App.wt.(kg)	4	6	8.5	13	19	37.5	65	98	150	-	-

### Part List / Materials of Construction

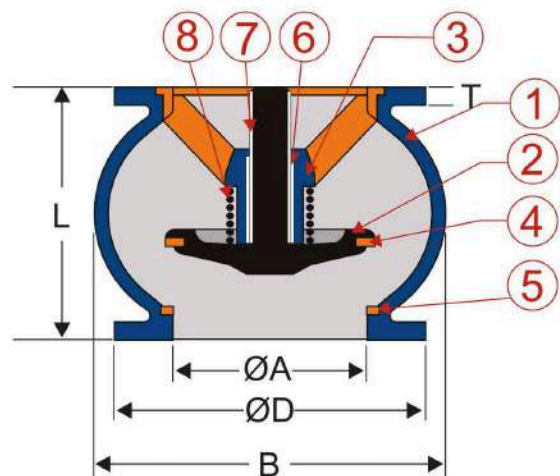
Part	Description	Standard	Special on request
1.	Body	Cast Iron IS210, FG260 / GG25	DI(SGI) / WCB
2.	Closing disc	S. G. Iron GGG40	DI(SGI) / WCB
3.	Guide	Cast Iron IS210, FG260 / GG25	DI(SGI) / WCB
4.	Sealing ring	Nitrile ASTM D2000	Neoprene, Viton, Teflon etc.
5.	Seat ring	SS304	L. T. Bronze (IS318-LTB 2)
6.	Guide brush	L. T. Bronze IS318-LTB2	
7.	Sleeve	SS304	
8.	Spring*	Spring steel / Stainless Steel	

\*Note : Spring to be removed for air application



### Features of the Valve

- The closing mechanism is guided and backed with return spring for quick closing and opening.
- Due to aero/hydro dynamic effect water hammer can be 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°C
- This valve has a quality for withstanding consistent performance and longer life.

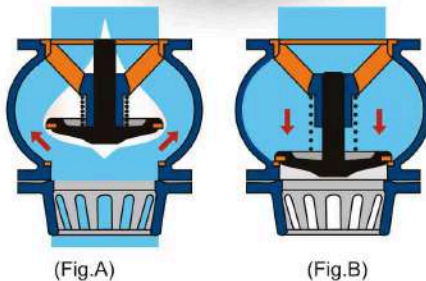


Note : \*W : Width of Valve (not shown in drawing)

Overall dimensions to be as L x B x W

- The valve flanges to be drilled as per customers requirements.
- Flange diameter shown as per IS 1538 / DIN 2532





## Silent Foot Valve : Model H - 04

### 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
- 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°C
- This valve has a quality for withstanding consistent performance and longer life.

### Dimensions (ØA = Valve size in mm NB)

Size ØA (NB)	40	50	65	80	100	150	200	250	300	350	400
ØD	150	165	185	200	220	285	340	395	445	505	565
H	130	150	184	204	248	327	410	520	553	670	760
B	150	165	185	203	229	307	350	430	500	600	686
T	13	16	16	20	22	22	22	25	28	30	30
*W	150	165	185	203	229	307	350	430	500	600	686
App.wt.(kg)	4.5	7	10	15	23	45.5	72.5	115	167	-	-

### Part List / Materials of Construction

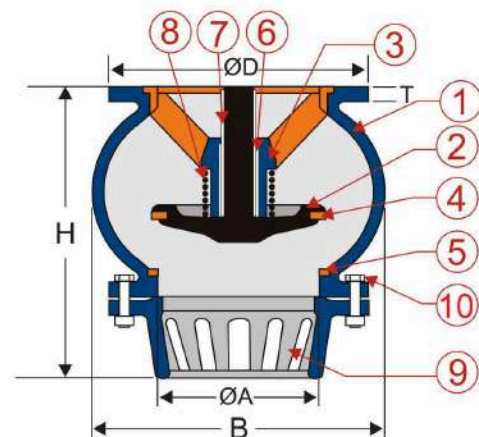
Part	Description	Standard	Special on request
1.	Body	Cast Iron IS210, FG260 / GG25	DI(SGI) / WCB
2.	Closing disc	S. G. Iron GGG40	DI(SGI) / WCB
3.	Guide	Cast Iron IS210, FG260 / GG25	DI(SGI) / WCB
4.	Sealing ring	Nitrile ASTM D2000	Neoprene, Viton, Teflon etc
5.	Seat ring	SS304	L. T. Bronze (IS318-LTB 2)
6.	Guide brush	L. T. Bronze IS318-LTB2	St. Steel / Teflon (PTFE)
7.	Sleeve	SS304	
8.	Spring*	Spring steel / Stainless Steel	
9.	Strainer	Cast Iron - IS210, FG200 (min) / GG25	DI(SGI) / WCB
10.	Fasteners	Carbon Steel CL4	

\*Note : Not recommended for air application

### Pressure rating

Size	Rating (MPa)	Rating (kg/cm <sup>2</sup> )/(Bar)
40 - 100NB	PN 1.6	PN 16
150 - 300NB	PN 1.0	PN 10
350 - 400NB	PN 0.6	PN 6

(For CI Construction)



Note : \*W : Width of Valve (not shown in drawing)

Overall dimensions to be as H x B x W

- The valve flanges to be drilled as per customers requirements.

- Flange diameter shown as per IS 1538 / DIN 2532





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**NORMEX VALVES PVT. LTD.**

Address : J - 511, M.I.D.C., Bhosari, Pune - 411 026, Maharashtra, India.

Telefax : +91 - 20 - 66114538, Mobile : +91 86058 24555

E-mail - [info@normexvalves.com](mailto:info@normexvalves.com), [normexvalves@gmail.com](mailto:normexvalves@gmail.com)





CUT SECTION B-04

# normex

## V A L V E S

**REVOLUTIONARY TECHNOLOGY IN VALVE INDUSTRY**

### Ball Check Valves (Flanged) Model B-01

- **Materials**  
Body & Cover : CI(GG25)  
Ball : Nitrile rubber coated  
Seat : Leaded Tin Bronze
- **Other materials on request**
- **Sizes** : 25 to 350 NB
- **Pressure rating**  
25 to 125 NB : PN1.6  
150 to 300 NB : PN1.0  
350 NB : PN0.6  
(For CI Construction.)



Installation : Vertical / Horizontal

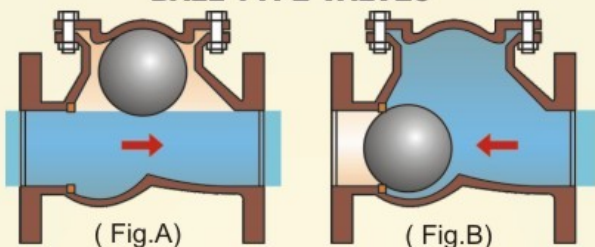
### Ball Foot Valves (Threaded) Model B-04

- **Materials:**  
Body & Strainer : CI(GG25)  
Ball : Nitrile rubber coated  
Seat : 25 - 80NB : Nitrile  
100NB : L T Bronze
- **Other materials on request**
- **Sizes** : 25 to 100 NB
- **Pressure rating** : PN0.6  
(For CI Construction.)



Installation : Vertical / Inclined

### WORKING PRINCIPLE OF BALL TYPE VALVES



( Fig.A)

( Fig.B)

The reinforced rubber coated ball is the heart of these valves. 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 seat due to its own weight & back pressure of the liquid (Fig B) This results in DROPLESS sealing.

#### Features of the Valves

- New generation valve with unique and non-conventional design. ■ Very low head loss across the valve due to ♦ No change in flow direction ♦ No change in flow area, ♦ No obstruction to the flow. ■ 100% leakproof sealing. ■ Robust and very simple operation. ■ Non clogging and self cleaning.
- Maintenance free. ■ Power saving. ■ Large solid handling capacity. ■ 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.

### Ball Foot Valves (Flanged) Model B-05(N)/B-05

- **Materials:**  
Body & Strainer : CI(GG25)  
Ball : Nitrile rubber coated  
Seat : 40 to 80 - Nitrile rubber  
100 to 350 - L T Bronze
- **Other materials on request**
- **Sizes** : 40 to 350 NB
- **Pressure rating**  
Size Rating  
250 - 300NB PN 1.0  
350NB PN 0.6  
(For CI Construction.)



Installation : Vertical / Inclined

### Ball Check Valves (Threaded) Model B-06

- **Materials:**  
Body : CI(GG25)  
Ball : Nitrile rubber coated  
Seat : Nitrile
  - **Other materials on request**
  - **Sizes** : 25 to 100 NB
  - **Pressure rating** : PN0.6  
(For CI Construction.)
- Installation : Vertical / Horizontal / Inclined



### Rubber Lined Ball Check Valves Model B-02

These valves are lined internally with rubber so that media does not come in contact with metal. Most suitable for corrosive/erosive applications.

- **Materials**  
Body & Cover : CI(GG25)  
Ball : Nitrile rubber coated  
Seat : Integral  
Lining : Ebonite Hard
- **Sizes** : 25 to 350 NB
- **Pressure rating**  
25 to 125 NB : PN1.6  
150 to 300 NB : PN1.0  
350 NB : PN0.6 (For CI Construction.)



Installation : Vertical / Horizontal



# Silent Check Valves

## Model H-01

### APPLICATIONS



WATER DISTRIBUTION



SEWAGE TREATMENT



HVAC



AGRICULTURE/ IRRIGATION



STEEL



FIRE FIGHTING



PLUMBING



POWER



FOOD PROCESSING



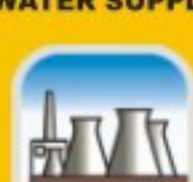
CHEMICAL



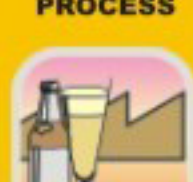
WATER TREATMENT



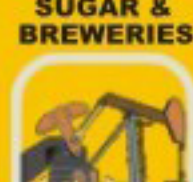
WATER SUPPLY



PROCESS



SUGAR & BREWERIES



MINING AND MANY MORE

### Principle

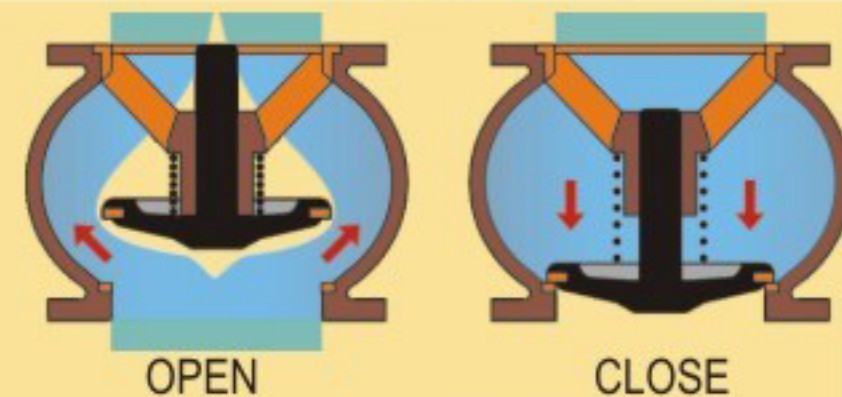
This is a short length double flanged valve with all the internals designed Hydrodynamically. This valve, when open, the annular area between the body and plunger available for flow, is equal to the nominal bore area. Therefore, unlike other spring loaded valves and conventional flap check valves, these valves offer lower head losses and maintains laminar flow. As the valve closes, due to return spring force, valve is 'Quick Closing'. The valve gets closed before the start of back flow/ return velocity. Hence, water hammer is eliminated in most of the cases.

### Features of the Valve

- Working principal hydrodynamic guided closing
- The closing mechanism is guided and backed with return spring for quick closing, opening and perfect sealing.
- Due to aero/hydro dynamic effect water hammer is eliminated.
- Very low pressure loss.
- Most suitable for clear liquids and air.
- Suitable for mounting vertically, horizontally or angular
- Silent operation.

### Materials:

- Body : Cast Iron IS210, FG200 ( min)
  - Closing disc : S. G. Iron GGG40
  - Sealing ring : Nitrile
  - Guide bush/Seat : L. T. Bronze IS318 - LTB2
  - Other materials on request
  - **Pressure rating**
- | Size        | Rating |
|-------------|--------|
| 40 - 125NB  | PN 1.6 |
| 150 - 300NB | PN 1.0 |
| 350 - 400NB | PN 0.6 |
- For CI Construction.



# Butterfly Valves

## BFV

### Technical Data

PRESSURE RATING	PN 1.0 & PN 1.6
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



AVAILABLE WITH ISI MARK



### 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.
- Suitable for mounting between all standard flanges.
- Gasket packing not required to install between flanges.
- **Sizes : 40mm to 400mm**

### Parts List & Materials

PART	STD. MODE OF CONSTRUCTION	OPTIONS
BODY	Cast Iron, GG - 25/ IS - 210 FG - 260/ BS - 1452 Gr. 260	SG Iron, GGG 40 Cast Steel (WCB) Stainless Steel CF8/CF8M
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
SEAT	EPDM	Nitrile, Neoprene, Viton, Silicon Hypalon or as per customer's Requirements.

# Wafer Check Valves

## Model : WCV / WSP

### Salient Features

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

### Part List / Materials of Construction

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

Sizes : 40mm to 600mm  
Pressure rating : PN1.0, PN1.6



### Length of valves (mm)

SIZE - mm (Inch)		25 (1")	40(1 1/2")	50 (2")	65 (2 1/2")	80 (3")	100 (4")	125 (5")	150 (6")	200 (8")	250 (10")	300 (12")	350 (14")
Ball Check Valve (Flanged)	B-01	144	174	200	240	260	300	350	400	500	600	700	800
Ball Foot Valve (Threaded)	B-04	140	156	180	215	264	306	-	-	-	-	-	-
Butterfly Valve	BFV	-	33	43	46	46	52	56	56	60	68	78	78
Ball Check Valve (Threaded)	B-06	121	142	167	208	250	295	-	-	-	-	-	-
Ball Foot Valve (Flanged)	B-05/B-05(N)	194	220	180	218	264	314	379	439	539	751	851	993
Wafer Check Valve	WCV / WSP	-	16	16	16	16	16	16	19	28	28	38	41

Rubber Lined Ball Check Valves B-02 length is more by 6 to 10mm than our Ball Check Valve (Flanged) model B-01

**normex**  
VALVES PVT. LTD.

J-511, MIDC BHOSARI,  
PUNE - 411026 ( INDIA )

J - 511, M.I.D.C., Bhosari, Pune - 411 026,  
Maharashtra, India.  
Telefax : +91 - 20 - 65104560, 66114538, 27472398,  
27473022  
Mobile : +91 86058 24555,  
E-mail - info@normexvalves.com,  
normexvalves@gmail.com  
Website - www.normexvalves.com

Authorised Dealer



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## BUTTERFLY VALVES



Gear Box Mounted

Actuator Mounted

### 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

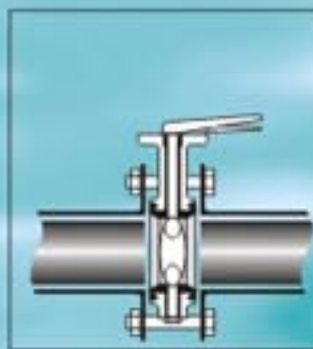
Available with  mark  
IS 13095  
CML-7637789

### INSTALLATION PROCEDURE

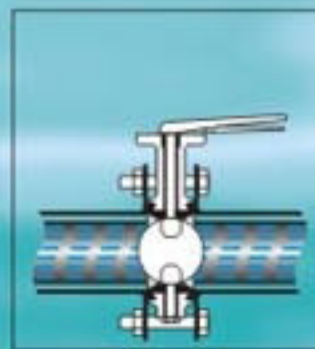
1 Keep the mating flanges well apart so that the valve can be inserted freely between the gap of mating flanges. The valve disc should be in semi-open position, but ensure that it does not protrude out of the valve body.



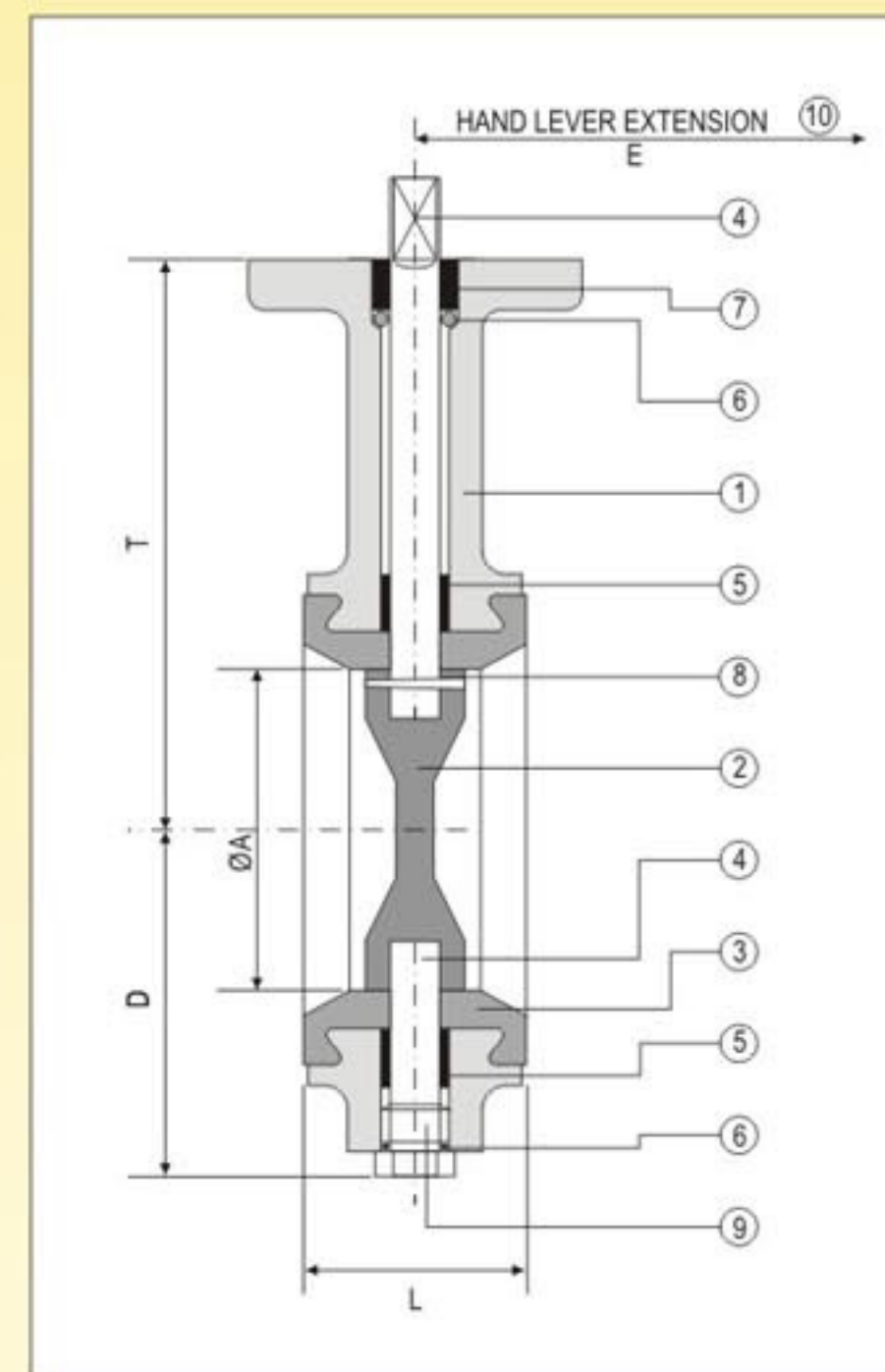
2 Insert the valve between the flanges. Insert the bolts firstly passing through eye on valve on top side to support the valve and then insert the other bolts touching the sides of the valve. Select the bolt length such that it connects the mating flanges and valve can be tightened between the two flanges.



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.



### TECHNICAL DATA

PRESSURE RATING	PN 1.0 & PN 1.6
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



**normex**  
VALVES PVT. LTD.  
J-511, MIDC, BHOSARI,  
PUNE - 411026 (INDIA)

J - 511, M.I.D.C., Bhosari, Pune - 411 026, Maharashtra, India.  
Telefax : +91 - 20 - 65104560, 66114538, 27472398, 27473022  
Mobile : +91 86058 24555,  
E-mail - info@normexvalves.com, normexvalves@gmail.com  
Website - www.normexvalves.com

### 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	EPDM	Nitrile, 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

### DIMENSION CHART

Size (DN)	A	L	D	T	B	Wt.(Kg)
40		33	70	103	240	2.2
50		43	74	113	240	2.7
65		46	83	121	240	3.2
80		46	88	129	240	3.5
100		52	101	147	240	5.0
125		56	114	160	240	6.5
150		56	139	170	330	9.2
200		60	162	200	330	12.4
250		68	208	245	500	22.9
300		78	234	270		29.5
350		78	275	315		
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

### 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).

AUTHORISED DEALER

We also manufacture PATENTED DESIGN BALL TYPE NON RETURN VALVES & FOOT VALVES - a breakthrough in non return valve technology. Due to constant research and development, specifications subject to change without prior notice.



- 
- J-511, M.I.D.C., BHOSARI, PUNE – 411 026 (INDIA)
  - TEL./FAX : 91- 20- 66114538, 65104560, 27130122
  - E-MAIL : [normexvalves@gmail.com](mailto:normexvalves@gmail.com)
  - WEB : [www.normexvalves.com](http://www.normexvalves.com)
  - An ISO 9001:2008 Company.
- 

## COMPANY PROFILE

NORMEX VALVES PVT. LTD. incorporated in 1987 as a unique initiative in fluid control industry; focuses on creating technological up-gradation and new inventions for a broad industrial applications. NORMEX Group has been promoted by professionals in valve industry and is headed by a senior engineering industry professional. With global technological experience. The Company has its own in-house strengths to offer complete facilities for valves design, engineering, machining, assembly, testing and quality assurance and support.

### **Research & Development :**

The research efforts at Normex enjoys recognition by The Government of India. Normex have been awarded with three Patents for innovative and technically superior designs of their Non-return Valves & Foot Valves - truly a break-through in technology. Technically qualified promoters, persuance, dedication and futuristic vision are the strengths of NORMEX. Constantly pursuing for perfection and satisfaction, Normex have achieved fastest growing path in their scale of Industry.

### **Products :**

Ball type non-return valve was the first valves at NORMEX to be awarded with Patent. A very simple but robust design with no mechanism involved. With the hinge-pin-disc mechanism as in conventional valve eliminated, NORMEX has put in a reinforced rubber coated ball to arrest flow media in return condition. This ball, moves totally out of the flow path when the pumping is on to give minimum head losses. The spherical rubber coated ball seals perfectly on the rounded valve seat ensuring a totally leakproof sealing. This design offers other advantages like non-clogging & self cleaning. In this virtually maintenance free valves, if required, after prolonged usage, the on-line replacement of the ball is just a minute job.

The same technology is adopted for Foot Valves and yet another Patent was awarded. The frequent priming of pumps is now eliminated with these Foot Valves. Ball type valves cover wide range of applications like slurry, sewage, paper, chemicals in addition to agriculture.

Contd..2/-

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- J-511, M.I.D.C., BHOSARI, PUNE – 411 026 (INDIA)
  - TEL./FAX : 91- 20- 66114538, 65104560, 27130122
  - E-MAIL : [normexvalves@gmail.com](mailto:normexvalves@gmail.com)
  - WEB : [www.normexvalves.com](http://www.normexvalves.com)
  - An ISO 9001:2008 Company.
- 

Fine application difference of check valves compelled NORMEX to come up with a new check Valve design named as Hydrodynamic Guided Closing (HGC) Non-return Valve & Foot Valve, bringing in the third Patent. The closing mechanism is guided and backed with return spring for quick closing. This valve has inherent ability to arrest water hammer. NORMEX has succeeded in keeping very low pressure losses in this valve also.

The control application in pumping systems attracted Normex to come out with control Valves i.e. Butterfly Valve. The Normex Butterfly Valve superseded the Gate Valve, Ball Valve and Globe Valve in most spheres of applications. Gas tight sealing with excellent control characteristics and uni-directional flow has qualified Normex Valves by most of the industries. The centrally mounted disc, shafts and bearings has minimized head loss.

It's low weight and compact design has achieved acceptability in industries like Chemical and Petrochemicals, Water treatment, Agriculture and many more.

### **Manufacturing :**

Machining and assembly facility of NORMEX is located at Pimpri-Chinchwad (Bhosari) industrial estate, one of the unique and largest industrial estate in Asia popularly known for heavy engineering industries. Normex is equipped with sophisticated machines like prestigious heavy duty Bombay lathe, radial drilling, hydraulic rubber press, hydraulic test rig and allied machinery and dedicated tooling to consistently achieve component dimensions within tolerances. This ensures high rate of accuracy as well as perfect alignment. The assembly and testing facilities incorporate tailor-made fixtures for 100% reliability.

### **Quality Assurance :**

Quality is an integral part of the development, engineering, production and planning process at NORMEX Group. It is built into the project from raw material's inspection, through on going quality assurance during production like Total Quality Management to testing of the final product before delivery. NORMEX Group quality levels meet the highest standards. To maintain ourselves in the top bracket of quality, we have started the procedures to acquire ISO certification.

Contd..3/-



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- J-511, M.I.D.C., BHOSARI, PUNE – 411 026 (INDIA)
  - TEL./FAX : 91- 20- 66114538, 65104560, 27130122
  - E-MAIL : [normexvalves@gmail.com](mailto:normexvalves@gmail.com)
  - WEB : [www.normexvalves.com](http://www.normexvalves.com)
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### **Marketing :**

The fruits of the inputs are sweet. Normex is now a well known brand, approved, proved and established in various types of Industry. NORMEX has a wide marketing network all over India as well abroad. Off-the-shelf services are provided at major metro cities in India. Timely delivery and quick after-sales-services are possible because of dedicated and qualified workforce right from designing of products till professional marketing personnel and qualified service staff. NORMEX products are employed around the wide range of industries including Sugar, Chemical Process, Paper, Power, Steel, Mining etc.,

The highly professionals at NORMEX constantly pursued more ways to benefit the clients. Latest Valves are being developed. Additional infrastructure is being put into place.

As a result, constant technological up-gradation and customer satisfaction go hand-in-hand.

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