



# Sando Rotary Equipments Pvt. Ltd.

Presents



POLY VALVES & FITTINGS  
AN EFFECTIVE SOLUTION TO CORROSION PROBLEMS

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# Sando Rotary Equipments Pvt. Ltd.

## POLYPROPYLENE BALL VALVES

- Unique three piece design with long lever for easy operation.
- Made out of virgin Polypropylene in Natural Colour.
- Unique seat Designing and precision ball machining facilitates ease of operation.
- Operating temperature 0-90 C w.r.t. water.
- Each valve is tested Hydraulically at 15 kg/cm<sup>2</sup> Body & 10 kg/cm<sup>2</sup> Seat. (Temperature of water in tank is considered as 27 C.)
- Sizes available from  
15mm-100mm Flanged Ends,  
15mm- 50mm Screwed Ends.

### HIGH HEAT STABILISED SPECIAL GRADE ISOTACTIC POLYPROPYLENE

(Advanced Engineering Plastic)

Advantage of Isotactic Polypropylene v/s normal Grade P.P.

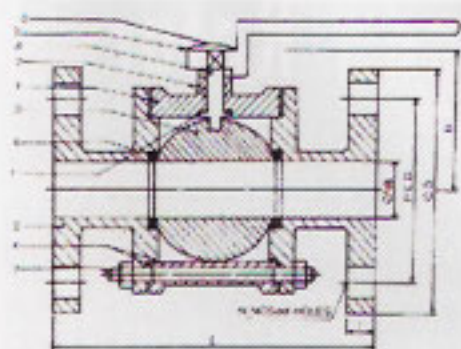
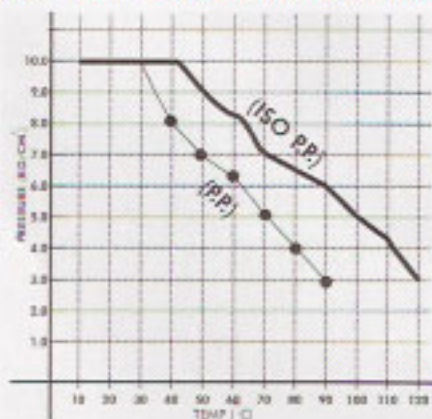
- Due to presence of atmospheric oxygen degradation and oxidation of ordinary P.P. is inevitable, even when there is no direct sunlight, while high heat stabilised Isotactic P.P. is immune to such degradation & Oxidation.
- Isotactic P.P. has got excellent heat resistance from 0 to 120 . and intermittent upto 150 C (when not subjected to mechanical stresses.)
- Chemical resistance of Isotactic P.P. is more than normal grade P.P. even at elevated temperature.
- This grade has proved excellent for HCL + Iron Chloride at continuous temperature upto 110 C.

Minimum life expected in hours for three Continuous Service temperature levels.

Formulation	at 120 C	at 100 C	at 80 C
Isotactic P.P.	18,000 (2 yrs.)	1,04,000 (12 yrs.)	7,15,000 (60 yrs.)

**Note:** In the case of articles in rapid movement (Ex. Suction Fan) or Forced Ventilation with hot air, the service time allowed must be reduced by 1/3 of value tabulated for formulation.

### PRESSURE - TEMP DIAGRAM OF PP/ISOTACTIC P.P.



### MATERIAL SPECIFICATION (P.P./ISOTACTIC P.P.)

Sr.No.	Description	Qty.	Material.
1.	Body	1	P.P./Iso. P.P.
2.	End Piece	2	P.P./Iso. P.P.
3.	Ball	1	P.P./Iso. P.P.
4.	Spindle	1	M.S.insert P.P./Iso. P.P. lined.
5.	Handle	1	M.S.insert L.D.PE.lined.
6.	Flange Seals	2	NEOPRENE/VITON/PTFE
7.	Spindle Seals	2	NEOPRENE/EPDM/VITON
8.	Seats	2	PTFE
9.	Studs & Nuts	-	M.S.GALVANISED/SS316
10.	Spindle Bolt	1	M.S.GALVANISED/SS316
11.	Spindle Bush	1	PTFE

### DIMENSIONAL TABLE

Size(NB)	L	O.D.	H.	T.
15 mm	130 mm	95	50	14
20 mm	135 mm	114	56	14
25 mm	155 mm	121	67	16
40 mm	175 mm	140	78	16
50 mm	205 mm	165	98	18
75 mm	252 mm	203	123	22
100 mm	295 mm	229	150	22

- Notes:**
1. Dimensions are in mm unless specified other wise.
  2. Face to Face length - Tolerance  $\pm 5$  mm.
  3. O.D. of the Flange is as per BS 10 Table 'F'. However, drilling on Flanges can be as per BS10 Table 'D'/'E'/'F'. ASA 150, ANSI B16.5 DIN PN-10, IS6392
  4. Face to Face length as per DIN 3302 is also available.



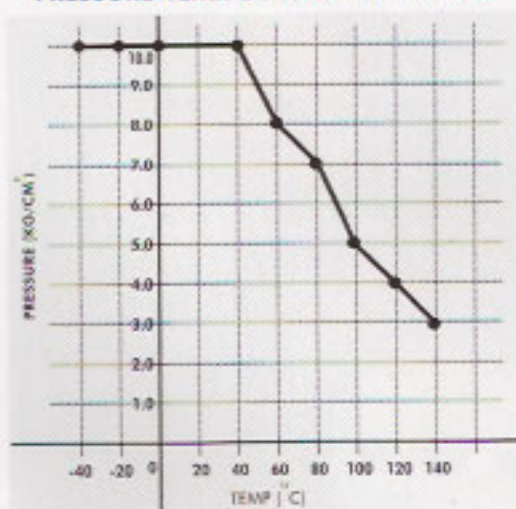


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## P. V. D. F. BALL VALVES

- Fully moulded solid ball valve in Poly Vinylidene Fluoride (P.V.D.F.), an advanced engineering fluoro plastic.
- P.V.D.F. has excellent resistance to chemicals, even the most aggressive, such as Bromine.
- P.V.D.F. has operating temperature range from -40 C to 140 C, based on test conducted with water.
- Good resistance to abrasion, allowing use in abrasive slurries.
- High mechanical strength.
- Hydraulically tested at Body: 15 kg/cm<sup>2</sup>  
Seat: 10 kg/cm<sup>2</sup>
- Sizes available :
  - Type Flanged 1. With P. V. D. F. Flanges  
15 mm - 100 mm
  - 2. With P. P. loose Flanges  
15 mm - 100 mm
  - Screwed Ends. 15 mm - 50 mm
  - Socket Weld Type 15 mm - 100 mm

**PRESSURE-TEMP. DIAGRAM OF P.V.D.F**

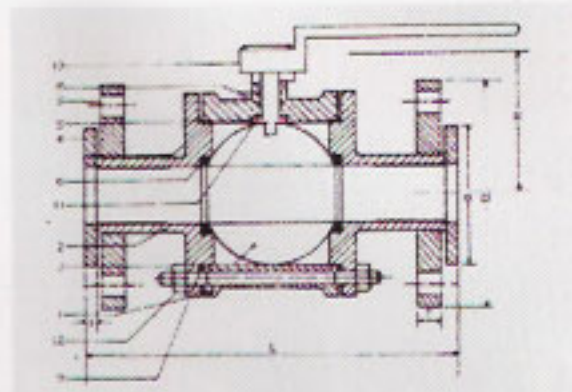


### ELECTROSTATICALLY GROUNDED VALVES

PP/PVDF Ball Valves when operated, static charge is created due to friction between ball and seat. In case of fire hazardous chemicals this may prove to be dangerous.

In such cases we can provide a system by which the ball, stem and lever can be electrostatically grounded to the valve body.

System diagram can be forwarded to interested parties on correspondence.



**MATERIAL SPECIFICATION (P.V.D.F.)**

Sr.No.	Description	Qty.	Material.
1.	Body	1	P.V.D.F.
2.	End Piece	2	P.V.D.F.
3.	Ball	1	P.V.D.F.
4.	Socket	2	P.V.D.F.
5.	Spindle	1	S.S. insert P.V.D.F. lined.
6.	Seats	2	PTFE.
7.	Flange Seals	2	VITON/PTFE
8.	Spindle Seals	2	VITON
9.	Flange	2	PP/P.V.D.F.
10.	Handle	1	M.S. insert L.D.PE. lined.
11.	Spindle Bush	1	P.T.F.E.
12.	Studs & Nuts	-	S.S. 316

**DIMENSIONAL TABLE**

Size		L	H.	O.D.	T.
	Flanged	Screwed			
15 NB	184	130	50	95	14
20 NB	167	108	56	114	14
25 NB	185	130	67	121	16
40 NB	195	118	78	140	16
50 NB	235	156	98	165	18
75 NB	250	---	123	203	22
100 NB	295	---	150	229	22





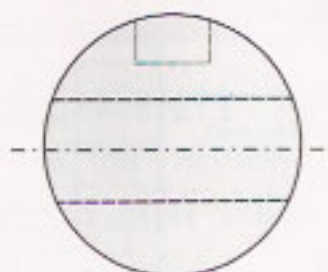
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## MAIN UNIQUE FEATURES OF BALL VALVES



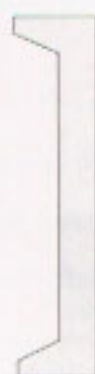
### SPINDLE:

M.S. Insert Polypropylene/P.V.D.F. lined Spindle: The M.S. insert provides mechanical strength at the same time Polypropylene lining ensures chemical and corrosion resistance.



### BALL:

The ball is precisely machined to 0-0 accuracy with special machining technique.



### SEAT:

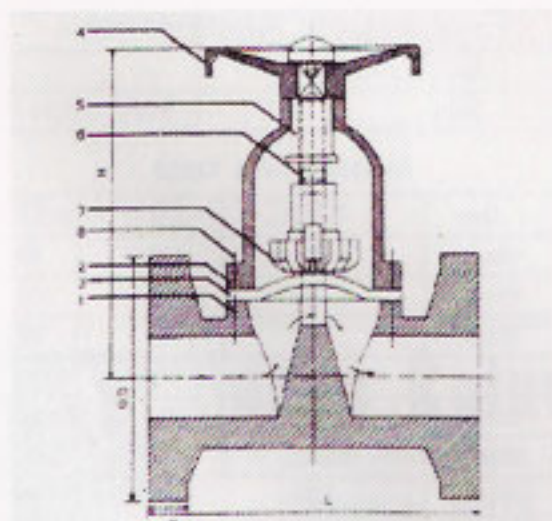
Unique Seat design provides cushioning to the ball when in operation and ensures smooth opening and closing.

## P.P./P.V.D.F. DIAPHRAGM VALVES

- Fully moulded PP/P.V.D.F. Diaphragm Valves in natural colour. Weir type.
- Each valve is hydraulically tested at:  
Body: 10 kg/cm<sup>2</sup>  
Seat: 7.0 kg/cm<sup>2</sup>
- Sizes available :  
Type:- Flanged Ends. 15 mm - 80 mm  
Screwed Ends. 15 mm - 50 mm

### MATERIAL SPECIFICATION FOR DIAPHRAGM VALVES (PP/P.V.D.F.)

Sr.No.	Description	Qty.	Material.
1.	Body	1	PP/P.V.D.F.
2.	Bonnet	1	PP/P.V.D.F.
3.	Diaphragm	1	E.P.D.M./PTFE lined backed with EPDM/VITON
4.	Hand Wheel	1	PP
5.	Sleeve	1	Brass/S.S. 316
6.	Spindle	1	Brass/S.S. 316
7.	Compressor	1	C.S./Cast Aluminium
9.	Bolts & Nuts	1	S.S. 316/M.S. Hot dip Galvanised.



### DIMENSIONAL TABLE

Size	L	O.D.	H.	T.
1/2"	114	95	80	16
1"	142	121	110	18
1-1/2"	168	140	163	18
2"	200	165	203	20
3"	255	203	300	22





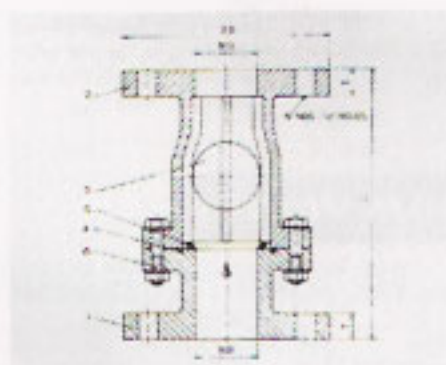
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## R.P./P.V.D.F. (BALL TYPE) CHECK VALVES

- R.P./P.V.D.C.F. check valve with unique ball type design.
- Ensures 100% leak proofness even at 1mtr. water head.
- Hydraulically tested  
 $10 \text{ kg/cm}^2$  to  $0.1 \text{ kg/cm}^2$  seat.  
 Body tested at  $15 \text{ kg/cm}^2$
- Enough passage left to pass Liquid without pressure drop.  
 Solid ball with specific gravity more than one for perfect sealing.

### MATERIAL SPECIFICATION FOR BALL TYPE CHECK VALVE (R.P./P.V.D.F.)

Sr.No.	Description	Qty.	Material.
1.	Body	1	R.P./P.V.D.F.
2.	Bonnet	1	R.P./P.V.D.F.
3.	Ball	1	R.P./P.V.D.F.
4.	Seal	1	Viton/Neoprene Rubber
5.	Seat	1	PTFE/VITON/NEOPRENE
6.	Bolts & Nuts	1	M.S. Hot dip Galvanised/S.S.



### DIMENSIONAL TABLE

Size	L	O.D.	T.
1"	155	121	16
1-1/2"	175	140	16
2"	210	165	18
3"	250	203	20

## R.P. & P.V.D.F. SIGHT GLASSES

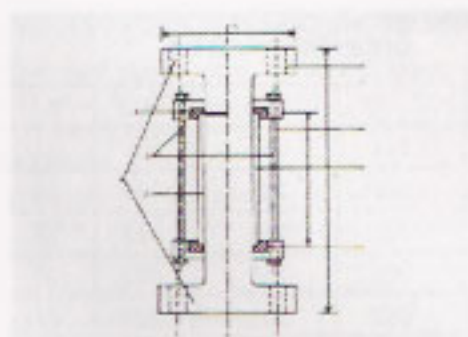
- Manufactured from virgin material in natural colour.
- It is used to see direction of flow of liquid passing through the line with the help of flap provided in seat.
- Sizes available :  $\frac{1}{2}$ " - 4" Flanged type.

### MATERIAL SPECIFICATION (SIGHT GLASS)

Sr.No.	Description	Qty.	Material.
1.	Side Covers	2	R.P./P.V.D.F.
2.	Studs & Nuts	5	R.P./P.V.D.F.
3.	Borosil Glass	1	---
4.	Seat	2	PTFE/VITON

### DIMENSIONAL TABLE

Size	D	L	I
15mm	95	130	50
20mm	114	135	50
25mm	121	155	50
40mm	140	175	60
50mm	165	205	75
75mm	203	252	100
100mm	229	295	150







## QUALITY POLICY

**SANDO ROTARY EQUIPMENTS PVT. LTD.** shall strive to achieve a reputation in the national & international market through quality supply and after sales service, by the virtue of:

- a) Research and development of product through proper understanding and interpretation of the customer requirements and the application of the product in due course of time in order to achieve ultimate customer satisfaction.
- b) Prompt response and delivery actions.
- c) Ensuring strict monitoring of the manufacturing process and the inspection and test criteria.
- d) Implementing and maintaining a continually improving quality management system complying with the requirements of **ISO 9001: 2000** International standard.

Date : 01-02-2003

**JITENDRA DOSHI**  
Managing Director



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