

## BALL CHECK VALVE

MAINTENANCE FREE | NON CLOG  
FRICTIONLESS | DROPLESS



**MODEL 3100**



**MODEL 5100**

# PRINCIPLE

The heart of this valve is a reinforced rubber ball. The unique design of the valve allows free movement of the ball. The ball moves to open position when the pump starts and allows free flow of liquid without any interference (See Fig.:- 1). As the pumps stops the ball seats firmly against the metal sits due to its own weight & back pressure of the liquid (See Fig. :- 2). This results in DROPLESS sealing.

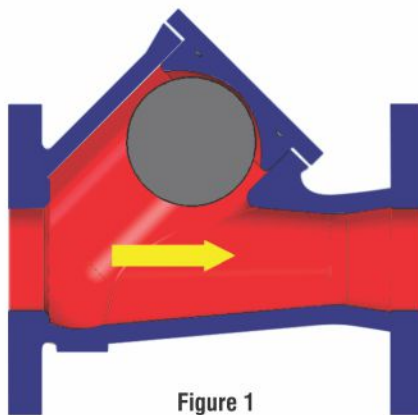


Figure 1

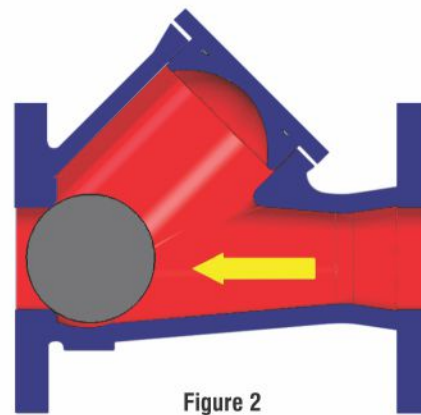


Figure 2

## COMPARISON

	ROTECH BALL CHECK VALVES	CONVENTIONAL NON-RETURN VALVES
<b>Head Loss (Pressure Drop)</b>	Low due to light, free flowing rubber ball, without causing any interference, resulting in lower power consumption (Frictionless).	High due to interference of the heavy hinge/disc mechanism, with the flow resulting in higher power consumption.
<b>Perfect Sealing</b>	The Sealing face is deposit free since it remains inclined in any position of the valve, ensuring perfect sealing (Dropleless).	Deposits on the sealing face due to its flatness may not ensure perfect sealing.
<b>Solid Handling Capacity</b>	Clear Passage, equal to the nominal valve dia., gives larger solid handling capacity.	The above interference leaves a clear passage less than the nominal valve dia. hence similar solid handling capacity.
<b>Self Cleaning</b>	Any deposits formed on the ball and in the valve passage are removed due to the rolling of the ball in operation.	No such possibility.
<b>Non-Clogging Nature</b>	No moving parts other than the free rolling ball, hence no jamming/clogging.	Moving parts may jam due to deposits.
<b>Applications</b>	Unlimited. Ideal for slurries, sewage, viscous erosive and corrosive liquids.	Limited. Trouble some for slurries, sewage & viscous liquids.
<b>Maintenance</b>	Abrasion resistance of rubber ensures longer life. Also the clean out port does not necessitate valve removal from the pipeline. Hence much shorter down time.	Parts may wear out due to abrasion. Also valve has to be removed from the pipeline for maintenance /cleaning. Hence longer down time.

# MODEL 3100

ROTECH BALL CHECK VALVE (THREADED)

Size: - 1" to 3"

Max. Temp. : - 90°C

Working Pressure: - 145 PSI

The ball check valve has threaded ends and works vertically or horizontally.  
The valve can be supplied with NPT & BSP threaded connection.

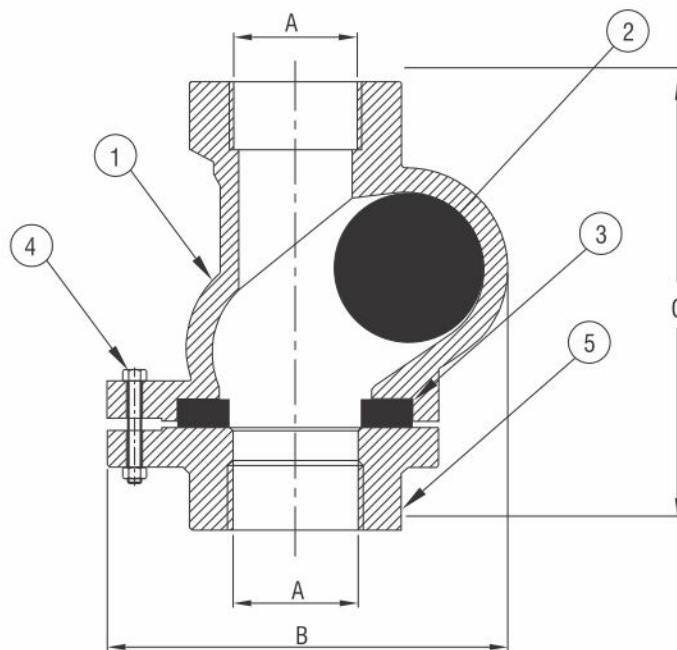
## MATERIAL OF CONSTRUCTION

PART	DESCRIPTION	STANDARD	SPECIAL
1	Body	Ductile Iron	Stainless Steel, Cast Steel
2	Ball	Nitrile Rubber	EPDM, Neoprene
3	Seal Ring	Nitrile Rubber	Butyle, Viton
4	Fastener	Stainless Steel	Stainless Steel
5	Adapter	Ductile Iron	Stainless Steel, Cast Steel

## DIMENSION

SIZE	PART NO.	A	B	C	WT. (LBS)
1"	3131	1"	3.543	3.937	4
1 - 1/4"	3132	1 - 1/4"	3.543	3.937	4
1 - 1/2"	3133	1 - 1/2"	4.921	5.315	5
2"	3134	2"	5.827	6.496	8
3"	3135	3"	9.133	9.606	15

## CROSS SECTION





# MODEL 5100

ROTECH BALL CHECK VALVE (FLANGED)

Size: - 2" to 12"

Max. Temp. : - 90°C

Working Pressure: - 145 PSI

The ball check valve has flanged ends and works vertically or horizontally.

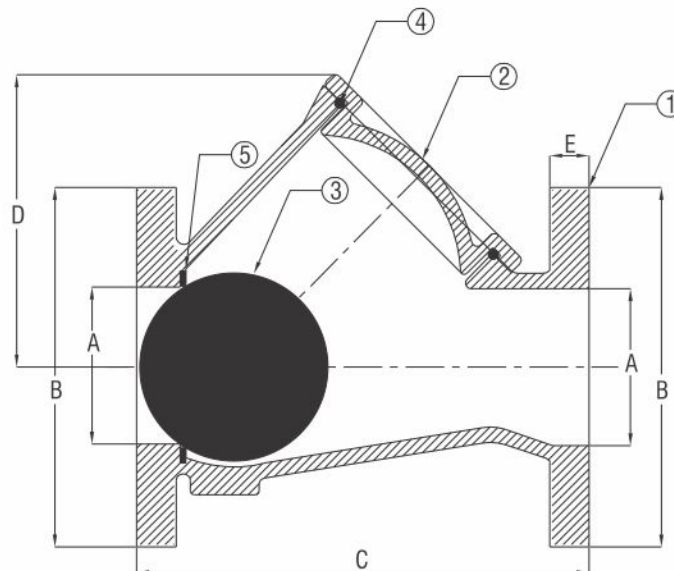
## MATERIAL OF CONSTRUCTION

PART	DESCRIPTION	STANDARD	SPECIAL
1	Body	Ductile Iron	Stainless Steel, Cast Steel
2	Cover	Ductile Iron	Stainless Steel, Cast Steel
3	Ball	Nitrile Reinforced	EPDM, Neoprene
4	Cover Ring	Nitrile Rubber	Butyle, Viton
5	Ball Seal Ring	O-Ring / Rubber Bronze Seat	Stainless Steel Hard Rub
6	Fastener	Carbon Steel	Stainless Steel

## DIMENSION

SIZE	PART NO.	A	B	C	D	E	WT. (LBS)
2"	5152	2"	6.496	7.874	7.087	0.63	18
2-1/2"	51525	2-1/2"	7.283	9.449	8.268	0.63	26
3"	5153	3"	7.874	10.236	9.055	0.748	36
4"	5154	4"	8.661	11.811	11.023	0.787	57
5"	5155	5"	9.842	13.78	13.385	0.827	92
6"	5156	6"	11.22	15.748	15.748	0.827	128
8"	5158	8"	13.386	19.685	19.685	0.866	220
10"	5160	10"	15.551	23.622	22.441	0.945	374
12"	5162	12"	17.52	27.56	26.772	0.984	440

## CROSS SECTION



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