

RUBBER DUCKBILL CHECK VALVE

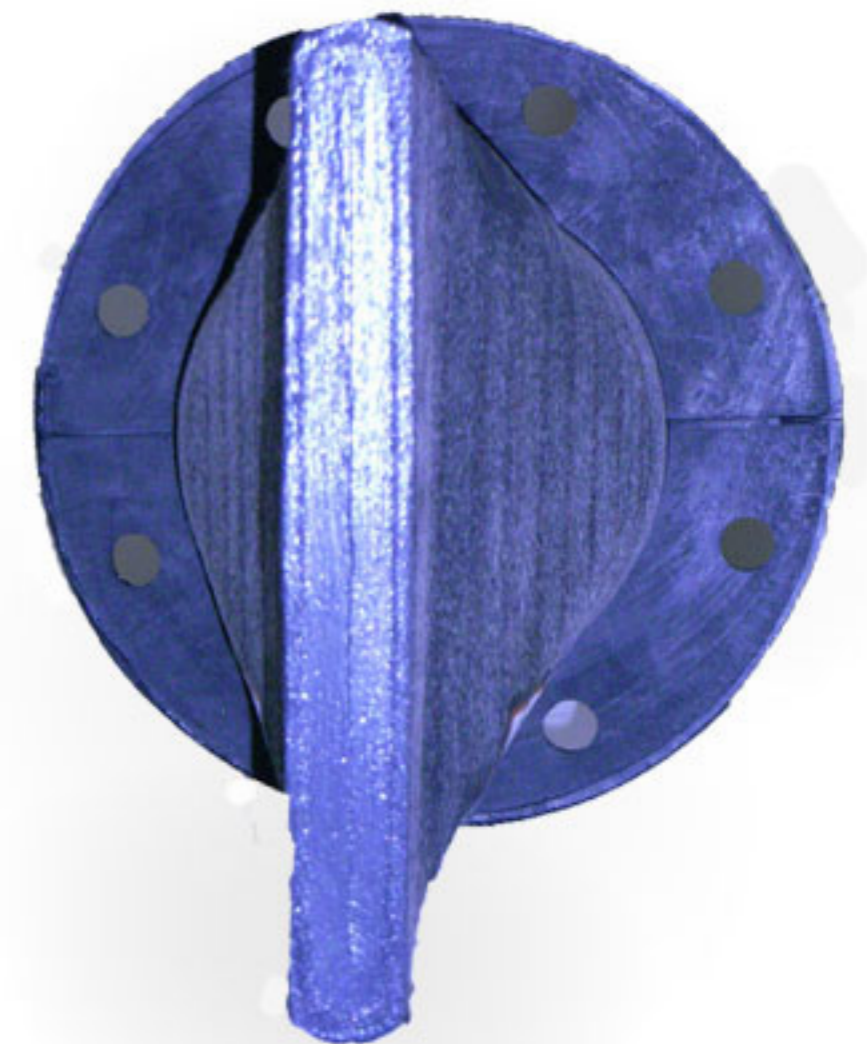
RHINOFLEX offers a variety of **Rubber Duckbill Check Valves**, and **Inline Rubber Check Valves** that are an exceptionally reliable and cost effective method to control back pressures in sewage treatment plants. These valves are fully passive flow devices, which require absolutely no maintenance whatsoever, no source of power or manual operating assistance, and are an excellent alternative to conventional flap-gate valves and other check valves. The flexible Rubber Duckbill Valve is normally closed but will open with the very minimum of head pressure and always providing maximum flow with minimal pressure drop across the valve. Conventional Flap-Gate Check valves, and other check valves are mechanical and have metal components that are commonly know to malfunction, rust, and seize. Rubber Duckbill Check Valves will even handle large obstructions without jamming or binding, and guarantee trouble free back flow prevention, and can even seal around trapped or suspended solids with minimum back pressure. The finest of engineering elastomers are used, and the outer layers, are designed to repel marine organisms.

Features:

Full rubber construction, totally wear resistant to abrasives
No water hammer and noise, prevents back flow.
Absolutely "NO" energy, actuation, energy costs and maintenance. Valve will not deform or freeze.
Extremely easily exchangeable with other check valves.
Designed to suit all diameters, and pressure ratings.
Flanged type and Slip On Type available

Typical Applications:

* Storm water outfall * Sewer Interceptor Check Valve
* Flood control systems * CSO / SSO / Effluent Discharge
* Pumping stations / Wet wells * Submerged Outfall Diffuser Nozzles



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SERIES RFL- FLANGED DUCKBILL CHECK VALVE

Manufactured with an integral reinforced rubber flange complete with metal backing rings the Series RFL can be bolted directly to a headwall, tank wall or pipe flange.

Available in standard sizes up to 96" we will also manufacture any valve size to meet your exact needs.

Flanges and Backing Rings

Flat faced, reinforced rubber flanges with metal backing rings are drilled in accordance with customer specifications.

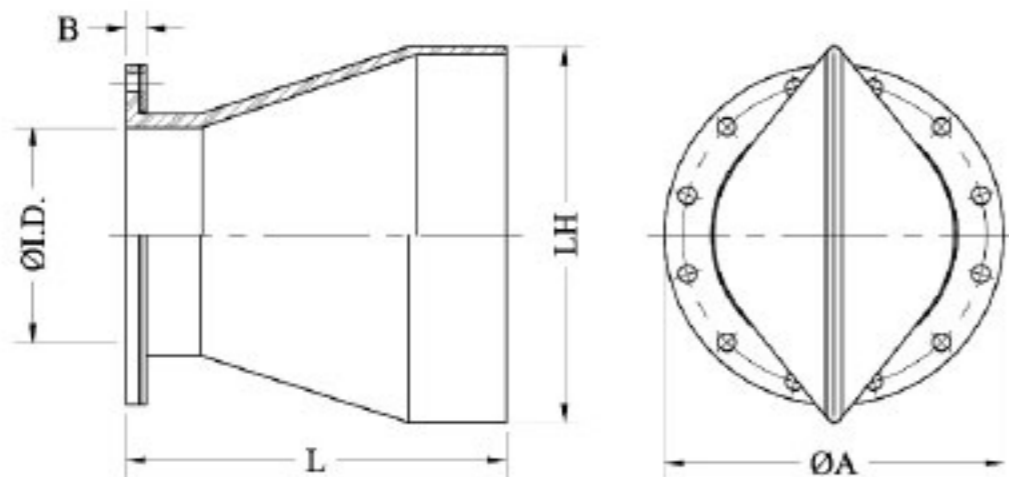
In addition to piping industry standards, unique dimensions and shapes of flanges are also available.

Flange backing rings are available in galvanized steel or painted steel and stainless steels depending on the application. Rhinoflex recommends stainless steel backing rings.

Larger diameter valves are supplied with a lifting clevis to assist the installation of the valve. The same clevis can be used to support the valve and water weight in service.



Design Specifications



Pipe Size ID (In)	B (In)	Maximum Length - L (In)	Maximum Height - LH (In)	Pipe Size ID (In)	B (In)	Maximum Length - L (In)	Maximum Height - LH (In)
2	3/4	6	4	24	1 5/8	40	39
2 1/2	3/4	7	5	26	1 5/8	42	42
3	1 1/8	9	6	28	1 5/8	42	45
4	1 1/8	12	8	30	1 5/8	44	47
5	1 1/8	15	9	32	1 5/8	52	52
6	1 1/8	15	11	36	2	50	56
8	1 3/8	16	14	42	2 1/2	54	68
10	1 3/8	21	17	48	2 1/2	60	77
12	1 3/8	26	22	54	2 1/2	70	86
14	1 3/8	26	24	60	2 1/2	72	97
16	1 3/8	31	27	66	2 1/2	76	99
18	1 5/8	30	30	72	2 1/2	94	114
20	1 5/8	32	32	84	2 1/2	96	135
22	1 5/8	35	36	96	2 1/2	100	150

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SERIES RFS- SERIES RFS SLIP- ON DUCKBILL CHECK VALVE

Manufactured with an integral reinforced flexible sleeve end complete with heavy duty clamps the Series RFS can be easily attached directly over the pipe end.

Available in standard sizes up to 96" we will also manufacture any valve size to meet your exact needs.

Attachment Sleeve and Clamping Rings

The end of the valve that attaches to the pipe is a flexible rubber sleeve with multiple plies of reinforcing cord. The inside diameter of this sleeve is sized to allow easy installation over the pipe end.

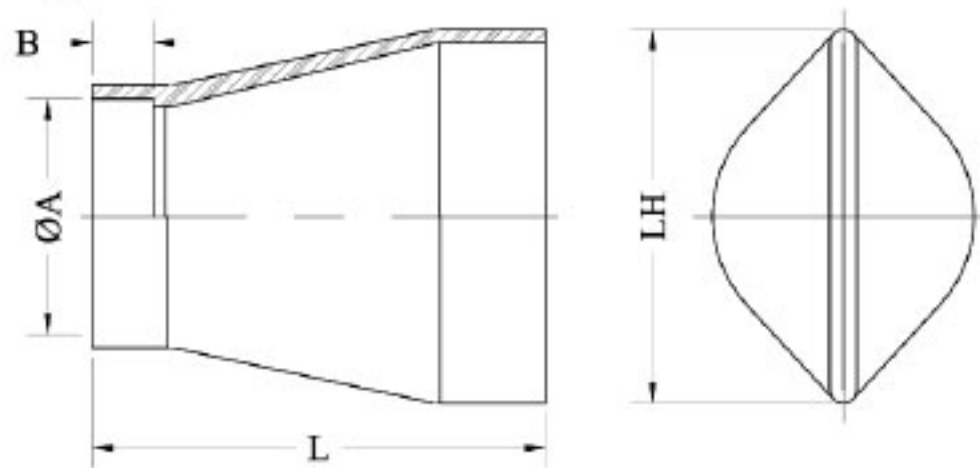
In addition to steel pipe the Series RFS can be easily adapted to plastic, concrete, special dimension conduits or channels and corrugated culverts.

Clamping rings are available in stainless steel only. Depending on the size and application these may be worm gear type, toggle bolt band type or rolled flat-bar with bolted joints. Larger valves with flat-bar clamps are provided with extra holes in the bar through which pins should be inserted through the pipe wall to help keep the valve in place.

Larger diameter valves are supplied with a lifting clevis to assist the installation of the valve. The same clevis can be used to support the valve and water weight when in use.



Design Specifications



Pipe Size A (In)	B (In)	Maximum Length - L (In)	Maximum Height - LH (In)	Pipe Size A (In)	B (In)	Maximum Length - L (In)	Maximum Height - LH (In)
2	2	6	4	24	8	40	39
2-1/2	2	8	5	26	8	42	42
3	3	9	6	28	8	44	45
4	3	12	8	30	10	48	47
5	3	14	9	32	10	48	52
6	4	16	11	36	10	58	56
8	4	17	14	42	12	60	68
10	4	20	17	48	12	66	77
12	5	24	22	54	12	72	86
14	5	28	24	60	12	82	97
16	5	30	27	66	14	90	99
18	6	32	30	72	14	98	114
20	8	34	32	84	18	108	135
22	8	36	36	96	18	114	150

PGR: Pure Gum Natural Rubber has excellent abrasion resistance and flexibility

SBR: Styrene Butadiene Rubber for general purpose use

CR: Chloroprene Rubber – Neoprene resists a wide range of moderate chemicals and inhibits growth of marine organisms

EPDM: Ethylene Propylene Rubber is used for water service and is also available in food grade

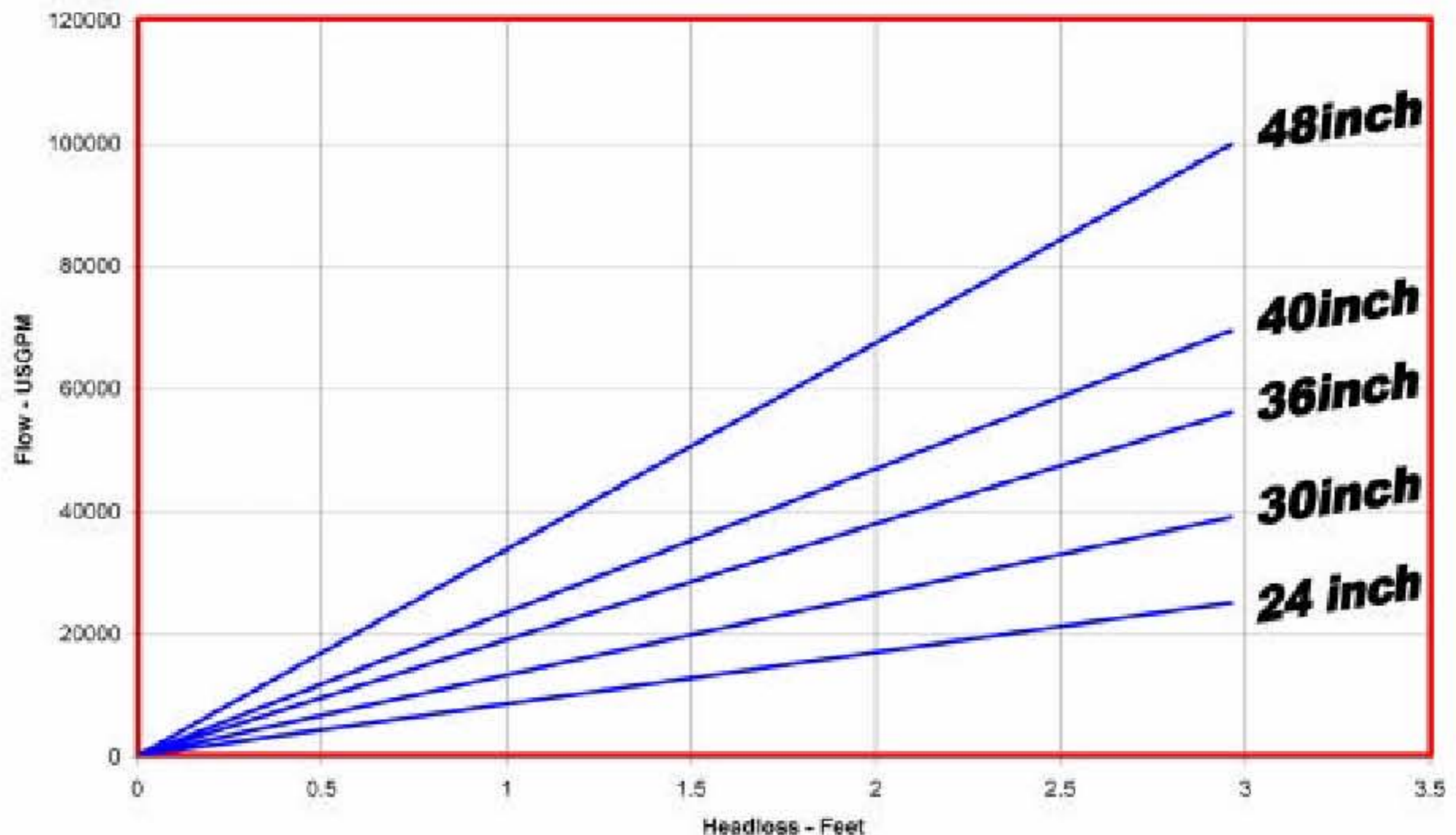
CSM: Chlorosulphonated Polyethylene – Hypalon provides excellent resistance to a wide range of strong chemicals and oxidizing agents, ozone, weathering, heat and sunlight

NBR: Nitrile Butadiene Rubber- Buna-N is used for resistance to fuels, oils, grease and other hydrocarbons

CIIR: Chlorobutyl Rubber – Butyl resists oxidizing chemicals, organic oils and greases and heat

Technical data - Flow vs Headloss

Examples for Series RFL / RFS Duckbill Check Valves



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