Contents
1- GENERAL .......................................................................................................................... 2
2- FUNCTION .......................................................................................................................... 2
3- SUBMITTALS ..................................................................................................................... 2
4- QUALITY ASSURANCE ..................................................................................................... 2
5- PRODUCTS .......................................................................................................................... 2
6- IMPLEMENTATION ............................................................................................................. 3
1- GENERAL
Elastomeric check valves shall be used on all equipment as called out by Engineers, in drawings, or contractor’s requirements. Standard materials of construction will be Neoprene with NSF61 approved Nitrile tube reinforced with multiple plies of NSF61 approved reinforcement with a NSF61 approved Nitrile cover as an alternate for potable water projects.

For waste water treatment projects, producers shall confirm in writing that the Neoprene that is used for the production does not become affected by the media in the line, even during the untreated discharge conditions, such as by-pass situation.

2- FUNCTION
When internal pressure inside the valve exceeds the backpressure being exerted on outside of the valve by a definite amount; the internal pressure opens the valves bill or flaps and allows media to flow out. When backpressure surpasses the internal line pressure by at least the same amount, the bills or flaps of the valve will close and remain that way until the internal pressure is again greater.

3- SUBMITTALS
Submit product literature that includes information on the performance and operation of the valve, materials of construction, flow data, dimensions and weights, elastomer characteristics, head loss data, and pressure ratings.

Shop Drawings will be available upon request that clearly identify specific valve dimensions.

4- QUALITY ASSURANCE
Manufacturer shall have significant experience in the production of “Duckbill” style elastomeric valves.

Manufacturer shall have compatibility with ISO 9000 standards.

Manufacturer shall perform hydraulic tests on valves, with diameter not less than 60cm, for flow capacity, head loss, and jet velocity at a qualified flow test laboratory. Manufacturer shall provide test data upon request.

Manufacturer shall provide, at his own cost, an independent licensed hydraulics engineer to review the application parameters and sign off on the valve being suitable for the application.

5- PRODUCTS
Flanged or slip-on types:

Valves are to be of an all rubber design operated check type with a slip-on, and/or flanged connection. The Check Valve will either be manufactured to slide over the outside diameter of a pipe and attached by means of vendor furnished stainless steel clamps, or flanged and drilled to suit Customer supplied specifications.

Check valves to be used inside the pipes:

The inlet area shall taper to a duckbill, which shall allow flow in one direction only. The valve shall be a one-piece rubber construction with appropriate reinforcement.

All check valves will be supplied with a straight bill portion which will allow lower head pressures.

Curved bill and/or flat bottom valves shall not be offered due to their high failure and frequent maintenance issues. (Contact factory for support documentation)
Outlet bill will be flat to offer excellent closure as well as lower head pressure requirements.

Manufacturer/Company name, Owner name, valve size and serial number shall be bonded to the check valve.

A single producer shall provide all elastomer duckbill check valves.

6- IMPLEMENTATION

Installation, Operation and Maintenance (IOM’s) manual will be utilized to ensure proper installation has been performed.

Each manual will be specific to the style chosen, and will clearly define any maintenance issues.