

## **Series TF-D Slip-On Diffuser Check Valves**

### **Specification #RV-TF-D**

#### **Products**

“Duckbill” Elastomer Diffuser Valves

- A) Diffuser Check Valves are to be all rubber of the flow operated check type with a slip-on connection. The Check Valve is designed to slip over the specified pipe outside diameter and attached by means of vendor furnished stainless steel clamps. The port area shall contour down to a duckbill, which shall allow passage of flow in one direction while preventing reverse flow. The flange and flexible duckbill sleeve shall be one piece rubber construction with nylon reinforcement.
- B) The Diffuser Check Valves shall provide a variable orifice nozzle to minimize variation in jet velocity with flow. The jet velocity vs. flow characteristic shall follow a non-linear curve, which maximizes jet velocity at low flow rates compared to fixed orifice nozzles. Manufacturer shall have flow test data on diffuser check valves obtained by an independent test facility verifying pressure drop and jet velocity vs. flow.
- C) Company name, valve size and serial number shall be bonded to outside of the check valve.

#### **Function**

- A) When line pressure inside the valve exceeds the backpressure outside the valve by a certain amount, the line pressure forces the bills of the valve open, allowing flow to pass. This restriction causes an increase in the jet velocity of the discharge, while the shape of the opening creates a flattened plume-shaped discharge pattern to increase dispersion. When backpressure exceed the line pressure by at the same amount, the bills of the valve are forced closed.

#### **Manufacturer**

- A) All valves shall be of the Series TF-D-NSF-61-DFO as manufactured by the Tideflex Technologies, as supplied by Syntec Process Equipment Ltd.

#### **Execution**

##### **Installation**

- A) Valve shall be installed in accordance with manufacturers written Installation and Operation Manual and approved submittals.