TSERIES 35-D FLANGED DIFFUSER CHECK VALVES
Specification #RV-35D

PART 1 GENERAL

1.01 SUBMITTALS

A.) Submit product literature that includes information on the performance and operation of the valve, materials of construction, dimensions and weights, elastomer characteristics, headloss, jet velocity, flow data, and pressure ratings.

B.) Upon request, provide shop drawings that clearly identify the valve dimensions.

1.02 QUALITY ASSURANCE

A. Supplier shall have at least ten (10) years experience in the manufacture of “duckbill” style elastomeric valves, and at least five (5) years experience with diffuser applications, and shall provide references and a list of installations upon request.

PART 2 PRODUCTS

2.01 “DUCKBILL” ELASTOMERIC DIFFUSER VALVES

A.) Valves are to be all rubber and the flow operated check type with a flanged end connection. 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 flange drilling shall conform to ANSI B16.1 Class 125/ANSI B16.5, Class 150 standards. The Series 35-D shall be furnished with galvanized steel or stainless steel back-up rings for installation.

C.) 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.

D. Company name, plant location, valve size and serial number shall be bonded to outside of the check valve. Valves shall be manufactured in the USA

2.02 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 exceeds the line pressure by at the same amount, the bills of the valve are forced closed.

2.03 MANUFACTURER

A.) All valves shall be of the Series 35-D as manufactured by the Red Valve Co., Inc. of Carnegie, PA 15106 or approved equal.

PART 3 EXECUTION

3.01 INSTALLATION

A. Valve shall be installed in accordance with manufacturer's written Installation and Operation Manual and approved submittals.

3.02 MANUFACTURER'S CUSTOMER SERVICE

A. Manufacturer's authorized representative shall be available for customer service during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.

B. Manufacturer shall also make customer service available directly from the factory in addition to authorized representatives for assistance during installation and start-up, and to train personnel in the operation, maintenance and troubleshooting of the valve.