

## COMBINATION SEWAGE AIR RELEASE AND VACUUM VALVES

## A. Description and Service

- Valve shall have the following functions: continuous discharge of dis-entrained pressurized air/gas, unrestricted vacuum break, and pipeline surge protection in a single chamber. Valves shall be anti-surge and anti-shock air release and vacuum break valves.
  - a. The small orifice shall release air accumulations after the pipeline is filled, under pressure and in operation.
  - The valve shall be equipped with an integral surge alleviation mechanism that automatically dampens surge pressures due to rapid air discharge or the subsequent rejoining of separated water columns.

## B. Construction and Design

- 1. The intake/discharge orifice area is equal to the nominal size of the valve, i.e., an 8" valve shall have 8" full flow inlet and 8" outlet.
- 2. Nozzle and Anti-Shock floats shall be solid unbreakable HDPE that will not deform under twice the design working pressure.
- 3. Manufacturer shall have ISO 9001, and third party vacuum testing to certify sizing and performance. CFD, FEA or other types of theoretical modeling are not acceptable.
- 4. Valve shall have a 10 year in-service warranty for all internal components.
- 5. Materials of Construction:
  - a1. Fusion Bonded Ductile Cast Iron Body, 304 Stainless Steel Top Cover and Fasteners.
  - a2. 304 Stainless Steel Body, Flange, Top Cover and Fasteners.
  - b. 316 Stainless Steel Nozzle & Lower Float Assembly
  - c. Integral High Density Polyethylene Anti-Shock and Nozzle Floats
  - d. EPDM Seats and Seals.
  - e. Tangential top and bottom Flushing Ports.

## C. Manufacturer & Model

1. Vent-O-Mat Series RGXII by RF Valves, Inc. Hanover, Maryland U.S.A.







