DeZURIK

SECTION 40_XX_XX
AIR/VACUUM VALVES FOR CLEAN SERVICE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:
   1. Air/Vacuum valves for clean service

B. Related Sections:
   1. (provided by the engineer)
   2. (provided by the engineer)
   3. (provided by the engineer)

1.02 REFERENCES

A. ASME B16.42 "Ductile Iron Pipe Flanges and Flanged Fittings"
B. ASME B16.5 "Steel Pipe Flanges and Flanged Fittings"
C. AWWA C512 "Air Release, Air/Vacuum and Combination Air Valves for Waterworks Service"

1.03 SUBMITTALS

A. (provided by the engineer)

1.04 QUALITY ASSURANCE

A. Valves shall be warranted by the manufacturer for defects in materials and workmanship for a period of two years (24 months) from date of shipment.

PART 2 - PRODUCTS

2.01 GENERAL

A. (provided by the engineer)

2.02 AIR RELEASE VALVES FOR CLEAN SERVICE

A. Manufacturers: APCO AVV or pre-approved equal
B. Design:
   1. Air/Vacuum Valve shall be float operated and have a large discharge orifice, equal or greater in size than the valve inlet
   2. General:
      a. Valve shall be a direct acting, float-operated, hydro-mechanical device designed to automatically release or admit large volumes of air during the filling or draining of a pipeline or piping system. Valve shall open to relieve negative pressures and will remain closed and will not reopen to vent air when the system is full and under pressure.
      b. Inlet and outlet port areas shall be equal or greater than the valve inlet
      c. Baffle shall be designed to protect the float from direct contact of the rushing air and water to prevent the float from closing prematurely.

d. Seat shall be fastened into the valve cover without distortion and provide drip tight shut off. Seat shall be field replaceable without special tools.
e. Float shall be center guided into the seat
f. Outlet port shall be threaded, flanged, or hooded

C. Materials:
1. Body: Ductile Iron ASTM A536/A351 Gr 65-45-12, Cast Iron ASTM A126 Gr B, Carbon Steel ASTM A216 or 316 Stainless Steel ASTM A743
2. Cover: Ductile Iron ASTM A536/A351 Gr 65-45-12, Cast Iron ASTM A126 Gr B, Carbon Steel ASTM A216 or 316 Stainless Steel ASTM A743
3. Float: 316 Stainless Steel ASTM A240
4. Seat: Acrylonitrile-Butadiene (NBR), Terpolymer of Ethylene, Propylene and A Diene (EPDM) or Fluoro Rubber (FKM)
5. Baffle: 316 Stainless Steel ASTM A743

D. Specifications for optional accessories:
1. DAT: A double acting throttling device fitted on the discharge orifice to provide both throttling air out and full flow air in
2. MRC: A mushroom cap installed in the threaded outlet for discharge protection

E. Testing:
1. Each valve shall be shop tested as a complete assembly in accordance with AWWA C512.
2. Certified test reports shall be available upon request.

PART 3 - EXECUTION

3.01 INSTALLATION

A. Install valves as specified in section (filled in by the engineer) and the manufacturer's instructions.
B. (verbiage by engineer instructing how discharge piping should be installed)

3.01 COMMISSIONING

A. Field testing (verbiage by engineer)