

SPECIFICATIONS - DETAILED PROVISIONS
Section 15108 - Air Release Valves for Sewage Service

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SECTION 15108
AIR RELEASE VALVES FOR SEWAGE SERVICE

PART 1 - GENERAL

1.01 DESCRIPTION

This section includes materials and installation of air-release valves for sewage service.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Paint and Coating: 09900.

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Conditions.
- B. Submit manufacturer's catalog data. Show dimensions, materials or construction by ASTM reference and grade, and coatings.

1.04 MEASUREMENT AND PAYMENT

Payment for work in this section shall be included as part of the lump sum bid amount as stated in the Proposal.

PART 2 - MATERIALS

2.01 COATINGS

Coat valves located above ground or in vaults and structures the same as the connecting piping. Apply prime coat at the place of manufacture. Color of finish coat shall match the color of the adjacent piping. Do not coat stainless steel pieces.

2.02 LINING

Coat interior surfaces of cast iron valves at the place of manufacture per Section 09900. Do not coat seating areas and plastic, bronze, stainless steel, or other high alloy parts.

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2.03 VALVE DESIGN AND OPERATION

Air release valves for sewage service shall have elongated, cylindrical chambers designed to release entrained air and sewage gases through an air release orifice. Float shall withstand an external pressure of 500 psi without collapsing. Provide a 1/2 inch clearance around the float in the chamber. Provide isolation valve, quick disconnect coupling and valve for back flushing, and back flushing hose. Provide blowoff outlet and valve at the bottom of the chamber.

2.04 MATERIALS OF CONSTRUCTION

Materials of construction for air release valves for sewage service shall be as follows:

ITEM	MATERIAL	SPECIFICATION
Body, cover	Cast Iron	ASTM A126 GR.B
Float,	Stainless Steel	ASTM A240 T304
Internal Linkage, Stem	Stainless Steel	Series T300
Needle	Buna-N	Nitrile Rubber

2.05 VALVE END CONNECTIONS

- A. Valves smaller than 3 inches shall have threaded ends. Valves 3 inches and larger shall have flanged ends.
- B. Flanges for Class 150 valves shall comply with ANSI B16.1, Class 125. Flanges for Class 300 valves shall comply with ANSI B16.1, Class 250.

2.06 VALVES

Sewage Air Release Valves, Class 150: After entraining air escapes through the orifice, the orifice shall be closed by a needle on a compound lever mechanism to prevent the escape of sewage. The orifice shall remain closed until more gas accumulates and the cycle automatically repeats. Valve shall seat to prevent sewage from leaking through the valve at any pressure. Valves shall have an operating pressure of at least 175 psi. Venting capacity shall be at least 300 CFFAM. Valves shall be APCO model 450, or approved equal.

PART 3 - EXECUTION

3.01 INSTALLATION

Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.

3.02 VALVE PRESSURE TESTING

Test valves at the same time that the connection pipeline are being pressure tested. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the test pressure.

END OF SECTION

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