

## **SECTION 05130 - AIR RELEASE AND VACUUM VALVES**

### **PART 1 - GENERAL**

#### 1.1 WORK INCLUDED IN THIS SECTION

- A. The WORK of this Section includes providing air release and vacuum valves as indicated, complete and operable, including accessories and drain connections in accordance with the DISTRICT's Standard Drawings.

#### 1.2 SUBMITTALS

- A. The following shall be submitted in compliance with Section 01300.
  - 1. Shop Drawings
    - a. Manufacturer's catalog data.
    - b. Manufacturer's installation instructions.
    - c. Manufacturer's certification that products comply with the indicated requirements.
  - 2. OWNER's Manual
    - a. Manufacturer's catalog data.
    - b. Manufacturer's installation and operations instructions.
    - c. Manufacturer's maintenance procedures.
    - d. List of special tools.

### **PART 2 - PRODUCTS**

#### 2.1 GENERAL

- A. Air and vacuum relief valves shall be hydrotested in conjunction with the connecting pipelines.
- B. Combination air/vacuum assemblies shall be furnished and installed by the CONTRACTOR at the locations shown on the Plans, or as required by the DISTRICT.
- C. The tap of an air and vacuum valve assembly shall be no closer than 18 inches to the valve, coupling, joint or fitting.

## 2.2 AIR AND VACUUM VALVES

- A. Air and vacuum valves shall be capable of venting sufficient quantities of air as determined by the manufacturer's approved sizing methods, while pipelines are being filled and allowing air to re-enter while pipelines are being drained.
- B. Air and vacuum valves shall be of the size indicated, with flanged or screwed ends to match piping.
- C. Bodies shall be of high-strength cast iron.
- D. The float, seat, and all moving parts shall be constructed of Type 316 stainless steel.
- E. Seat washers and gaskets shall be of a material insuring water tightness with a minimum of maintenance.
- F. Valves shall be designed for minimum 150 psi water-working pressure, unless otherwise indicated.

## 2.3 AIR-RELEASE VALVES

- A. Air-release valves shall vent accumulating air while system is in service and under pressure and be of the size indicated and shall meet the same general requirements as specified for air and vacuum valves except that the vacuum feature will not be required.
- B. Air-release valves shall have the same general requirements as specified for air and vacuum valves

## 2.4 COMBINATION AIR VALVES

- A. Combination air valves shall combine the characteristics of air and vacuum valves and air release valves by exhausting accumulated air in systems under pressure and releasing or re-admitting sufficient quantities of air, as determined by the manufacturer's approved sizing methods, while a system is being filled or drained, respectively.
- B. Combination air valves shall have the same general requirements as specified for air and vacuum valves.

## **PART 3 - EXECUTION**

### **3.1 INSTALLATION**

- A. All valves shall be installed in accordance with the manufacturer's printed recommendations.
- B. Air release and vacuum valves shall be installed at high points in piping systems and where indicated.
- C. Combination air/vacuum assemblies shall be installed on a section of pipe no closer than 18 inches to a bell, coupling, joint or fitting.
- D. Air/vacuum assemblies and valve box assemblies shall be field coated according to Specification Section 04000.
- E. All assemblies shall be installed above ground with security cover.
- F. Assemblies will be installed with a sanitary vent screen to the exhaust port of the valve, unless otherwise directed by the DISTRICT.
- G. Assemblies installed will have an isolation valve to permit future maintenance. Isolation valves installed above ground will have the capability to be locked out. Isolation valves installed below ground will be required to have a debris cap with a locking device.

END OF SECTION