

SPECIFICATIONS - DETAILED PROVISIONS
Section 15136 - Air Valves

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SECTION 15136
AIR VALVES

PART 1 - GENERAL

1.01 REQUIREMENT

Under these specifications the Contractor shall be required to furnish, deliver and unload at the place stated, and within the time specified in the Special Provisions, the air valves for water systems as specified on the Bidding Sheet and hereinafter described in these specifications. Air valves for sewerage systems are not included in this specification, but will be specifically called out on the construction drawings.

1.02 VALVE MANUFACTURER

The name of the manufacturer of the valves to be furnished by the bidder shall be stated on the Bidding Sheet. If valves different than listed herein are proposed, the bidder shall submit drawings of the proposed valves to the District prior to the time of opening bids. Bidder's drawings need not be submitted if such drawings have previously been approved by the Engineer as to compliance with the specifications.

1.03 GUARANTEE

The Contractor shall guarantee all materials and workmanship of items furnished under these specifications shall be free from defects for a period of one (1) year after final completion and acceptance of the entire contract work. The Contractor shall, at his own expense, repair or replace all defective materials or workmanship supplied by him found to be deficient with respect to any provisions of this specification.

PART 2 - PRODUCT

2.01 MATERIALS

All valves shall have a body of high grade cast iron and have all internal parts of solid bronze or stainless steel. All valves shall be designed for a working pressure of not less than 150 p.s.i..

2.02 OPERATIONAL FEATURES

A. Air Valves. All valves shall be designed to automatically operate as specified herein:

1. Will positively open under atmospheric pressure to allow air to escape from the pipe through the valve.

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2. Will positively close as water under low head fills body of the valve.
 3. Will not blow shut under high velocity air discharge, to allow air to escape from pipe while pipe is being filled.
 4. Will permit the escape of accumulated air under pressure, while pipeline is in operation.
- B. Air-Vacuum Valves. Shall be designed to automatically permit the rapid egress of large amounts of air from the pipeline while the pipeline is being filled with water, and to permit the rapid ingress of large amounts of air into the pipeline while the pipeline is being emptied.
- C. Air Release Valves. Shall be designed to automatically permit the escape of small amounts of accumulated air from pipelines operating under pressure.
- D. Combination Air-Vacuum and Air Release Valves. Shall be designed to automatically operate as described above for air-vacuum valves and air release valves.

2.03 SYSTEM AIR VALVES

Air valves for use in distribution systems shall be the float and lever type of the makes listed herein, or equal as approved by the Engineer:

<u>Manufacturer</u>	<u>Sizes</u>
Air Release Valves	
Apco #65	3/4"
Air Release & Vacuum Valves	
Apco 143-C	1"
Apco 145-C	2"
Valmatic 201-C	1"
Valmatic 202-C	2"
Crispen U-10	1"
Crispen U-20	2"
Apco 149-C	4"
Apco 150-C	6"

2.04 PUMP AIR VALVES

All air release valves for use on pumps shall have 3/4" pipe connection and shall be Armstrong Machine Works No. 21 AR Air Relief Trap, or equal as approved by the Engineer.

END OF SECTION 15136