

Materials Specification – 10 for PRESSURE REGULATING VALVES

1. GENERAL

Pressure regulating valves shall be designed and manufactured in accordance with AWWA C530 with the following additional requirements or exceptions.

2. SERVICE

The function of the pressure regulating valve is to reduce an upstream high pressure to a preadjusted lower downstream pressure to vary the rates of flow without causing shock or water hammer on the system. Components shall be suitable for exposure to chloraminated water.

3. VALVE DESCRIPTION

Pressure regulating valves shall be hydraulically operated and pilot controlled with a diaphragm or piston activated globe or angle valve. They shall be entirely stainless steel or bronze-trimmed. An indicator rod shall be furnished as an integral part of the valve to show the valve position. The valve shall be designed to provide an access opening in the body for the removal of internal parts without the removal of the main valve body from the service line.

4. INSTALLATION

Pressure regulating valves shall be installed in a horizontal position in an underground concrete manhole or concrete vault as applicable.

5. MATERIAL

Valve body, flanges, and covers shall be made of CI in accordance with ASTM A 126, Class B, or ASTM A 48, Class 35, DI in accordance with ASTM A 536, grade 65-45-12, or AISI 300 series stainless steel. Bronze castings or parts for the internal trim shall be in accordance with ASTM B 62.

6. VALVE ENDS

Valves shall be furnished with flanged ends that are sized and drilled in accordance with ANSI B16.1, Class 125. Flanges shall be machined to a flat surface with a serrated finish in accordance with AWWA C207.

7. PILOT VALVE

The pilot valve for controlling the operation of the main valve shall be a single seated, diaphragm operated, and spring loaded type. The pilot valve shall be attached to the main valve with piping and isolation valves arranged for easy access for adjustments and for removal from the main valve while it is under pressure.

8. NEEDLE VALVE

The needle valve shall be bronze or stainless steel and included with the main valve to control the speed of piston travel.

9. WORKING PRESSURE

The working pressure shall be 150 psi.

10. TESTING

The body of the pressure regulating valve shall be hydrostatically tested to 150% of the working pressure specified herein. A seat leakage test shall be made at the working pressure.

11. COATINGS

Ferrous surfaces, except machined or bearing surfaces or flange faces, shall be prepared for coating in accordance with SSPC SP10. These surfaces shall then be coated with a two-part thermosetting polyamide epoxy in two or more uniform coats or with fusion-bonded epoxy to a minimum DFT of 12 mils. Epoxy coating shall be in accordance with AWWA C550.

12. CERTIFICATION

The manufacturer shall furnish a sworn statement that the inspection and all specified tests have been completed and that results comply with the requirements of these Standards. A copy of the Certification, including compliance with NSF/ANSI 61, shall be provided to Denver Water.

13. ACCEPTABLE MANUFACTURERS

CITY AND COUNTY OF DENVER AND TOTAL SERVICE CONTRACT AREAS
Bermad 700 Series Control Valve
Cla-Val
Singer
DISTRIBUTOR CONTRACT AREAS
Ames
Golden Anderson
OCV
Ross

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