

SECTION 220523 – GENERAL-DUTY VALVES FOR PLUMBING PIPING

PART 1 GENERAL

1.1 WORK INCLUDED

- A. Check Valves.
- B. Gate Valves
- C. Globe Valves.
- D. Ball valves.
- E. Drain valves.

1.2 RELATED WORK

- A. Section 220553 - Identification for Plumbing Piping and Equipment
- B. Section 220700 - Plumbing Piping Insulation
- C. Section 221116 - Domestic Water Piping

1.3 SUBMITTALS

- A. Submit copies of valve ordering schedule for approval before ordering valves.
- B. Submit detailed shop drawings under provisions of Section 013300. Clearly indicate make, model, location, type, size and pressure rating.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

- A. Provide valves of same manufacturer throughout where possible, Jenkins, Milwaukee, Stockham, Nibco or Apollo.
- B. Provide valves with manufacturer's name and pressure rating clearly and permanently marked on outside of body at the factory.

2.2 VALVE CONNECTIONS

- A. Provide valves suitable to connect to adjoining piping as specified for pipe joints. Use pipe size valves.
- B. Thread pipe sizes 2 inches and smaller.
- C. Solder or screw to solder adaptors for copper tubing.

2.3 CHECK VALVES

- A. Bronze, y-pattern, horizontal swing disc, TFE or bronze seat disc, solder or screwed ends, 150 lb. steam, 300 psi W.O.G., Nibco Fig T-433-Y.

2.4 GATE VALVES

- A. Lead Free Brass, 200 lb. C.W.P., 125 lb. W.S.P., non-rising stem, solder or screwed ends, Nibco Webstone H-1013W Series.

2.5 GLOBE VALVES

- A. Bronze body, PTFE disc, malleable iron hand wheel, screw-in bonnet, solder connection, lead free certified, 200 psi at 100 degrees F C.W.P, Apollo Model 120S-LF (33 Series).

2.6 BALL VALVES

- A. Sizes 2-1/2" and smaller, Bronze body, 400 lb. C.W.P., 316 stainless steel ball and stem, multifill teflon seats and packing; soldered ends, three piece body, Apollo 82LF-200 series.
- B. Provide lever handle with stop pin for shut off service and memory stop for balancing service.

2.7 DRAIN VALVES

- A. Bronze ball valve with cap and hose thread, minimum 3/4" for lines up to 2-1/2", 1-1/2" for lines 3" and over, Apollo 70-200-HC Series bronze ball valve with dust cover and chain.

2.8 PRESSURE RATINGS

- A. Unless otherwise indicated, use valves suitable for 125 minimum psig WSP and 450 degrees F.

2.9 VALVE OPERATORS

- A. Where piping is insulated, provide valve operator extensions to suit insulation thickness. Coordinate with Section 220700 – Plumbing Piping Insulation.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Provide valves at all branch connections to mains and at each piece of equipment to allow for isolation and service.
- B. Install valves with stems upright or horizontal, not inverted.
- C. Provide ball valves for shut-off and isolating service in domestic water piping.
- D. Install globe valve for throttling service on interior animal waterer.
- E. Provide drain valves at main shut-off valves, and low points of piping and apparatus and where required to permit draining of system.

- F. Provide operator stem extensions to suit insulation thickness, coordinate with insulation specifications and trade.

END OF SECTION 220523