

SECTION 22 11 19

DOMESTIC PIPING SPECIALTIES

PART 1 GENERAL

1.01 OPERATION AND MAINTENANCE DATA

- A. Include documentation of inspections and tests performed, including logs, curves, and certificates.
- B. Documentation shall note replacement of equipment or components that failed during testing.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Sillcocks:
 - 1. Woodford.
- B. Hose Bibbs:
 - 1. Finished rooms: Chicago Faucet.
 - 2. Unfinished & equipment rooms: Woodford.
- C. Shock Arresters:
 - 1. Precision Plumbing Products Co. ("P.P.P.")
- D. Water Pressure Regulation Valve (Only):
 - 1. Manufacturers:
 - a) Mueller
 - b) Watts
 - 2. General:
 - a) Use self-contained pressure regulating valves with stainless steel seat ring.
 - b) Valves shall have bronze bodies for 200 psi working pressure.
 - c) Use two valves, one to have capacity each for 70 percent of total load and one valve with capacity of 00 percent.
 - d) Reduced pressure for 30 percent valve shall be 68 psi, one of the 70 percent valves set at 64 psi.
 - e) Provide full-size wye-pattern strainer on inlet side of valve assembly. If strainer is used, install bypass for service.
 - f) Install pressure gages, complete with ball valves.
 - g) Gauge range 0 psi to 200 psi.
 - h) Gauges shall be on house side and on service side of each reducing valve inside of each shut-off valve for each PRV.
 - i) Entire PRV station shall have one full-size bypass with ball or resilient seat gate valve.
- E. Temperature and Pressure Relief Valves (Bronze or Brass):
 - 1. Kunkle
 - 2. Watts
- F. Trap Primers:
 - 1. Hersey
 - 2. J. Water Meters
 - 3. Precision Plumbing Products, Inc. ("P.P.P.")
- G. Water Meters:

1. Hersey
 2. Niagara Meter Line
 3. MTX Series, Model 433,
 4. Contact closure output
 5. 1 percent accuracy, standard totalizer and calibrated contacts for remote monitoring
- H. Under-lavatory scald protectors:
1. Skal-Gard
 2. Brocar Trap-Wrap
 3. Truebro Lav-guard
- I. Trap Guards:
1. Hersey
 2. J. Water Meters
 3. Precision Plumbing Products, Inc. ("P.P.P.")

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install pressure regulators with inlet and outlet shutoff valves and balance valve bypass. Install pressure gages on inlet and outlet.
- B. Install strainers on supply side of each control valve, pressure regulator, and solenoid valve.
- C. Install trap seal primer valves with outlet piping pitched down toward drain trap a minimum of 1 percent and connect to floor-drain body, trap, or inlet fitting. Adjust valve for proper flow.
 1. Provide trap primers where traps in floor drains may dry out and allow sewer gas to escape into building spaces, toilet rooms, and mechanical rooms.
 2. Water supply lines should not be insulated.
- D. Tail piece style trap primers and mechanical style trap seals are not allowed. Install expansion joints on vertical risers, stacks, and conductors if indicated.
- E. Install flashing flange and clamping device with each stack and cleanout passing through floors with waterproof membrane.
- F. Under-lavatory scald protection: Install insulation covers for drains and water supplies to ADA-accessible lavatories.
- G. Fasten wall-hanging plumbing specialties securely to supports attached to building floor. Floor mounted carriers are required for wall-mounted plumbing fixtures.
- H. Fasten recessed-type plumbing specialties to reinforcement built into walls.
- I. Valves:
 1. Install individual shutoff valve in each water supply to plumbing specialties.
 2. Use ball valve if specific valve is not indicated.
 3. Install shutoff valves in accessible locations.
 4. Refer to Specification Section 15 11 00 Valves for general-duty ball, check, and gate.
 5. All branch and fixture isolation valves to be installed on the same floor level as the fixtures being serviced.
- J. Install air vent at piping high points. Include ball or globe valve in inlet and drain piping from outlet to floor drain.
- K. Water Hammer Arrestors
 1. Provide shock arresters in accordance with Plumbing Drainage Institute (PDI) Standard WH-201.

2. Mount as close to the line or quick-closing valve as possible. Remote mounting or excessive (over 6") nipple mounting will not be acceptable.
 3. Provide line size full port ball valve and FIP threaded fitting to accept MIP threaded shock arrester device.
 4. Provide 12" by 12" minimum access panel centered on each shock arrester that is otherwise inaccessible.
- L. Install escutcheons at wall, floor, and ceiling penetrations in exposed finished locations and within cabinets and millwork. Use deep-pattern escutcheons if required to conceal protruding pipe fittings.
- M. Reduced-Pressure Backflow Preventers:
1. Provide backflow preventers in each water supply to mechanical equipment and systems and to other equipment and water systems that may be sources of contamination.
 2. Locate backflow preventers in same room as connected equipment or system.
 3. Provide drains for backflow preventers with atmospheric-vent drain connection with air-gap fitting, fixed air-gap fitting, or equivalent positive pipe separation of at least two pipe diameters in drain piping and pipe to floor drain. Locate air-gap device attached to or under backflow preventer. Simple air breaks are not acceptable for this application.
 4. Do not install bypass piping around backflow preventers.
 5. Refer to other Division 22 standards for additional requirements.
 6. Installation height is 48" aff.

END OF SECTION 22 11 19