

SECTION 22 1006
PLUMBING PIPING SPECIALTIES

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Floor Drains
- B. Cleanouts
- C. Gas Zone Valve Box
- D. Mixing valves.
- E. Thermostatic Mixing Valve
- F. Trap Sealer Assembly
- G. Flashing

1.02 RELATED REQUIREMENTS

- A. Section 22 0510 - General Plumbing Requirements
- B. Section 22 0519 - Meters and Gages for Plumbing Piping
- C. Section 22 1005 - Plumbing Piping

1.03 REFERENCE STANDARDS

- A. NSF/ANSI 372 - American National Standard for procedures in evaluating product compliance with the 0.25% maximum weighted average lead content requirement.
- B. ADA Standards - Americans with Disabilities Act (ADA) Standards for Accessible Design; 2010.
- C. ASME A112.6.3 - Floor and Trench Drains; 2001 (R2007).
- D. NSF 61 - Drinking Water System Components - Health Effects; 2014 (Errata 2015).
- E. NSF 372 - Drinking Water System Components - Lead Content; 2011.

1.04 SUBMITTALS

- A. Refer to Section 22 0510 - General Plumbing Requirements, for submittal requirements.
- B. Product Data: Provide component sizes, rough-in requirements, service sizes, and finishes.
- C. Project Record Documents: Record actual locations of equipment, cleanouts, backflow preventers, piping and valves.

1.05 QUALITY ASSURANCE

- A. Products specified this section to be installed in a potable water system anticipated for human consumption shall be in compliance with the amended Safe Drinking Water Act S.3874, to reduce lead in drinking water. "Reduction of Lead in Drinking Water Act". 0.25% allowable lead content.
- B. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with not less than three years documented experience.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Accept specialties on site in original factory packaging. Inspect for damage.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A. Specialties in Potable Water Supply Systems: Provide products that comply with NSF 61 and NSF 372 for maximum lead content.

2.02 FLOOR DRAINS

- A. Floor Drain (FD-B): In Mechanical Spaces
 - 1. Manufacturers:
 - a. Josam; Model 32300V-50-69-1

- b. Mifab; Model F1340-Y-14
 - c. J. R. Smith; Model 2131L-P050-B-NB
 - d. Wade; Model 1210(TY)-1-27
 - e. Watts; Model FD-340-Y-P
2. ASME A112.6.3; lacquered cast iron two piece body with double drainage flange, weep holes, reversible clamping collar, and adjustable round nickel bronze strainer with removable perforated sediment bucket.

2.03 CLEANOUTS

- A. General Cleanouts at Exterior Unsurfaced Areas (GCO):
1. Manufacturers:
 - a. Josam; Model 58190-22
 - b. Mifab; Model C-1230
 - c. J.R. Smith; Model 4283S
 - d. Watts; Model CO-200
 - e. Zurn; Model Z1449
 - f. Wade; Model 8550-75
 2. Line type cast iron cleanout with spigot outlet.
- B. Cleanouts at Interior Finished Floor Areas (FCO):
1. Manufacturers:
 - a. Josam; Model 55000
 - b. Mifab; Model C-1100P-R
 - c. J.R. Smith; Model 4032L
 - d. Watts; Model
 - e. Zurn; Model ZN1400-NL-BP
 - f. Wade; Model 6000-1-75
 2. Lacquered cast iron body with anchor flange, flashing clamp and round adjustable secured Nickel Bronze top assembly with bronze plug and round gasketed scored cover in service areas and round gasketed depressed cover to accept floor finish in finished floor areas.
- C. Cleanouts at Interior Finished Wall Areas (WCO):
1. Manufacturers:
 - a. Josam; Model 58600
 - b. Mifab; Model C-1430-RD
 - c. J.R. Smith; Model 4472
 - d. Watts; Model CO-590-RD
 - e. Zurn; Model Z-1468
 - f. Wade; Model 8590/8304
 2. Line type with cast bronze taper threaded plug with round stainless steel access cover secured with machine screw.

2.04 GAS ZONE VALVE BOX

- A. Box Manufacturers:
1. Hill Rom; Model P68E7 Series:
 2. Beacon Medical Products
 3. Amico:
- B. Description: Surface mounted valve box to accommodate 1 valve from 1/2" to 2" size. Aluminum finish frame with easy removeable window labeled "Emergency Gas Shut-Off". See detail on drawing for size.

2.05 THERMOSTATIC MIXING VALVES

- A. Digital Water Mixing Valves:
1. Manufacturers:
 - a. Lawler.

- b. Leonard.
- c. Power; Model Intellistation LFIS075VL.
- d. Symmons.
2. System shall control water temperature to +/- 2°F in accordance with ASSE 1017 and resist "temperature creep" during periods of low/zero demand. Controller shall be password protected and feature a user-adjustable outlet temperature range of 60 - 180°F with high and low temperature alerts, and an approach temperature of 2°F.
3. System shall digitally control and monitor mixed outlet temperature. Controller shall integrate with building automation systems (separate module not required) through BACnet and Modbus protocols and feature local and remote temperature alarms. System will feature a user-set, high-temperature sanitization mode for thermal disinfection of bacteria and a programmable temperature set back feature to improve energy efficiency. System will also feature high speed actuator with override feature. In the event of a power failure, system will open full cold supply. In case of a loss of cold water, the system will close hot water supply.
4. System shall be listed/approved to ASSE 1017, cUPC, NSF, CSA 24/UL873 and BTL (BACnet Testing Laboratories)
5. Capacity: 16 gpm at 5 psi differential.
- B. Emergency Shower Mixing Valves: (single)
 1. Manufacturers:
 - a. Lawler.
 - b. Leonard; Model TM-600.
 - c. Power.
 - d. Speakman; Model SE362
 - e. Symmons.
 2. Valve: Cast brass body, stainless steel or copper alloy bellows, integral temperature adjustment, cold water by-pass (20 GPM), high temperature stop set at 90 degrees.
 3. Capacity: 23 gpm at 10 psi differential.
 4. Accessories:
 - a. Check valve on inlets.
 - b. Volume control shut-off valve on outlet.
 - c. Stem thermometer on outlet.
 - d. Strainer stop checks on inlets.

2.06 TRAP SEALER ASSEMBLY

- A. Manufacturers:
 1. Sure Seal
 2. Proset
 3. J.R. Smith
 4. Mifab
 5. Green Drain
- B. Inline elastomeric material waterless trap protection. Size to match drain.
- C. Ten year warranty

2.07 COMPRESSED AIR MANIFOLD

- A. Manufacturers:
 1. Allied Healthcare Products, Inc.:
 2. Amico Corporation;
 3. BeaconMedaes:
 4. Powerex Inc.
 5. Western Enterprises; Model MS-2-2
- B. Manual Manifold: Maximum working pressure 3000psig, with brass headers and 24" stainless steel pigtails with check valves. Manifold to have 1/2" outlet.

2.08 FLASHING

- A. Cast Iron Vents Thru Roof Unless Otherwise Noted: 4 pound sheet lead, 18-inch square base, barrel type extending up side of vent pipe and turning down inside pipe 1-inch minimum.
- B. Pipes Thru Roof : See Details.
- C. Workmanship: Flashing materials shall be free of holes and splits, and all joints and seams shall be sealed watertight with solder.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Install plumbing specialties in a readily accessible location.
- C. Extend cleanouts to finished floor or wall surface. Lubricate threaded cleanout plugs with mixture of graphite and linseed oil. Ensure clearance at cleanout for rodding of drainage system.
- D. Encase exterior cleanouts in 6-inch concrete pad flush with grade. See detail.
- E. Install 2-way cleanouts at all sanitary sewer and storm drain pipes exiting the building. Refer to detail on drawings.
- F. Install floor cleanouts at elevation to accommodate finished floor.

END OF SECTION