

SECTION 221006 - PLUMBING PIPING SPECIALTIES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Roof and floor drains.
- B. Cleanouts.
- C. Hose bibbs.
- D. Backflow preventers.
- E. Water hammer arrestors.

1.2 RELATED REQUIREMENTS

- A. Section 016000 - Product Requirements: Procedures for [Owner]-supplied products.
- B. Section 221005 - Plumbing Piping.
- C. Section 224000 - Plumbing Fixtures.
- D. Section 223000 - Plumbing Equipment.

1.3 REFERENCE STANDARDS

- A. ASME A112.6.3 - Floor and Trench Drains; The American Society of Mechanical Engineers; 2001 (R2007).
- B. ASSE 1012 - Backflow Preventer with Intermediate Atmospheric Vent; American Society of Sanitary Engineering; 2002 (ANSI/ASSE 1012).
- C. ASSE 1019 - Vacuum Breaker Wall Hydrants, Freeze Resistant Automatic Draining Type; American Society of Sanitary Engineering; 2004, and Errata 2005 (ANSI/ASSE 1019).
- D. PDI-WH 201 - Water Hammer Arresters; Plumbing and Drainage Institute; 2006.

1.4 SUBMITTALS

- A. See Section 013000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide component sizes, rough-in requirements, service sizes, and finishes.
- C. Manufacturer's Instructions: Indicate Manufacturer's Installation Instructions: Indicate assembly and support requirements.

- D. Operation Data: Indicate frequency of treatment required for interceptors.
- E. Maintenance Materials: Furnish the following for Owner's use in maintenance of project.
 - 1. See Section 016000 - Product Requirements, for additional provisions.
 - 2. Extra Loose Keys for Outside Hose Bibbs: One.
 - 3. Extra Hose End Vacuum Breakers for Hose Bibbs: One.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the Products specified in this section with not less than three years documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

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

PART 2 PRODUCTS

2.1 DRAINS

- A. Manufacturers:
 - 1. Josam Company: www.josam.com.
 - 2. Jay R. Smith Manufacturing Company: www.jayrsmith.com.
 - 3. Zurn Industries, Inc: www.zurn.com.
 - 4. Substitutions: See Section 016000 - Product Requirements.
- B. Floor Drain (FD-1):
 - 1. ASME A112.6.3; lacquered cast iron two piece body with double drainage flange, weep holes, reversible clamping collar, and round, adjustable nickel-bronze strainer.

2.2 CLEANOUTS

- A. Manufacturers:
 - 1. Jay R. Smith Manufacturing Company; Model _____: www.jayrsmith.com.
 - 2. Josam Company; Model _____: www.josam.com.
 - 3. Zurn Industries, Inc; Model _____: www.zurn.com.
 - 4. Substitutions: See Section 016000 - Product Requirements.
- B. Cleanouts at Exterior Surfaced Areas:
 - 1. Round cast nickel bronze access frame and non-skid cover.

- C. Cleanouts at Exterior Unsurfaced Areas:
 - 1. Line type with lacquered cast iron body and round epoxy coated gasketed cover.
- D. Cleanouts at Interior Finished Floor Areas:
 - 1. Lacquered cast iron body with anchor flange, reversible clamping collar, threaded top assembly, and round gasketed scored cover in service areas and round gasketed depressed cover to accept floor finish in finished floor areas.
- E. Cleanouts at Interior Finished Wall Areas:
 - 1. Line type with lacquered cast iron body and round epoxy coated gasketed cover, and round stainless steel access cover secured with machine screw.

2.3 HYDRANTS

- A. Manufacturers:
 - 1. Woodford Manufacturing Company; Model 67: www.woodfordmfg.com
 - 2. Substitutions: See Section 016000 - Product Requirements.
- B. Wall Hydrants (HB-1):
 - 1. ASSE 1019; freeze resistant, self-draining type with chrome plated wall plate hose thread spout, handwheel, and integral vacuum breaker.

2.4 REFRIGERATOR VALVE AND RECESSED BOX (IM-1)

- A. Box Manufacturers:
 - 1. IPS Corporation/Water-Tite; Model W9700: www.ipscorp.com.
 - 2. Oatey: www.oatey.com.
 - 3. Substitutions: See Section 016000 - Product Requirements.
- B. Valve Manufacturers:
 - 1. IPS Corporation/Water-Tite: www.ipscorp.com.
 - 2. Zurn Industries, Inc: www.zurn.com.
 - 3. Substitutions: See Section 016000 - Product Requirements.
- C. Description: Plastic preformed rough-in box with brass valves with wheel handle, slip in finishing cover.

2.5 BACKFLOW PREVENTERS

- A. Manufacturers:
 - 1. Conbraco Industries: www.conbraco.com.

2. Watts Regulator Company: www.wattsregulator.com.
3. Zurn Industries, Inc: www.zurn.com.
4. Substitutions: See Section 016000 - Product Requirements.

B. Reduced Pressure Backflow Preventers:

1. ASSE 1013; bronze body with bronze internal parts and stainless steel springs; two independently operating, spring loaded check valves; diaphragm type differential pressure relief valve located between check valves; third check valve that opens under back pressure in case of diaphragm failure; non-threaded vent outlet; assembled with two gate valves, strainer, and four test cocks.

2.6 DOUBLE CHECK VALVE ASSEMBLIES

A. Manufacturers:

1. Conbraco Industries; Model _____: www.conbraco.com.
2. Watts Regulator Company; Model _____: www.wattsregulator.com.
3. Zurn Industries, Inc; Model _____: www.zurn.com.
4. Substitutions: See Section 016000 - Product Requirements.

B. Double Check Valve Assemblies:

1. ASSE 1012; Bronze body with corrosion resistant internal parts and stainless steel springs; two independently operating check valves with intermediate atmospheric vent.

2.7 WATER HAMMER ARRESTORS

A. Manufacturers:

1. Jay R. Smith Manufacturing Company: www.jayrsmith.com.
2. Watts Regulator Company: www.wattsregulator.com.
3. Zurn Industries, Inc: www.zurn.com.
4. Substitutions: See Section 016000 - Product Requirements.

B. Water Hammer Arrestors:

1. Stainless steel construction, bellows type sized in accordance with PDI-WH 201, precharged suitable for operation in temperature range -100 to 300 degrees F (-73 to 149 degrees C) and maximum 250 psi (1700 kPa) working pressure.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.

- B. 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.
- C. Encase exterior cleanouts in concrete flush with grade.
- D. Install floor cleanouts at elevation to accommodate finished floor.
- E. Install approved portable water protection devices on plumbing lines where contamination of domestic water may occur; on boiler feed water lines, janitor rooms, fire sprinkler systems, premise isolation, irrigation systems, flush valves, interior and exterior hose bibbs.
- F. Pipe relief from backflow preventer to nearest drain.

END OF SECTION