

SECTION 22 13 19.13 - SANITARY DRAINS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Floor drains.

1.3 DEFINITIONS

- A. ABS: Acrylonitrile-butadiene styrene.
- B. FRP: Fiberglass-reinforced plastic.
- C. HDPE: High-density polyethylene.
- D. PE: Polyethylene.
- E. PP: Polypropylene.
- F. PVC: Polyvinyl chloride.

1.4 ACTION SUBMITTALS

- A. Product Data: For each type of product.

PART 2 - PRODUCTS

2.1 DRAIN ASSEMBLIES

- A. Sanitary drains shall bear label, stamp, or other markings of specified testing agency.
- B. Comply with NSF 14 for plastic sanitary piping specialty components.

2.2 DRAIN TRAPS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Jay R. Smith Mfg. Co. (Basis of Design)
2. Josam Company.
3. Wade; a subsidiary of McWane Inc.
4. WATTS.
5. Zurn Industries, LLC
6. Mifab.

B. Standard: CISPI 301, ASTM A888

C. Pattern: deep seal trap

1. Hub inlet and spigot outlet
2. Provide inset gaskets for hubs where required

D. Body Material: corrosion resistant cast iron.

E. Where drains and fixtures are specified without an integral trap, furnish and install deep seal P trap.

2.3 TRAP GUARD DEVICE

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Jay R. Smith Mfg. Co. (Basis of Design)
- b. Josam Company.
- c. Wade; a subsidiary of McWane Inc.
- d. WATTS.
- e. Zurn Industries, LLC
- f. Mifab.
- g. Provent Systems

B. Standard: ASSE 1072, ASME A112.6.3

C. Pattern: In line trap seal

D. Material: Chemically resistant elastomer.

2.4 FLOOR DRAINS

A. Cast-Iron Floor Drains FD-1:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Jay R. Smith Mfg. Co. (Basis of Design, Figure 2010)
 - b. Josam Company.
 - c. Wade; a subsidiary of McWane Inc.
 - d. WATTS.
 - e. Zurn Industries, LLC
 - f. Mifab.

2. Standard: ASME A112.6.3.
3. Pattern: Floor drain.
4. Body Material: Cast Iron.
5. Seepage Flange: Required.
6. Clamping Device: Not required.
7. Outlet: Bottom.
8. Coating on Interior and Exposed Exterior Surfaces: Not Required.
9. Sediment Bucket: Not Required.
10. Top or Strainer Material: Nickel bronze.
11. Top of Body and Strainer Finish: Nicke Bronze.
12. Top Shape: Square.
13. Dimensions of Top or Strainer: 5 inches.
14. Top Loading Classification: Light Duty.
15. Funnel: Not required.
16. Inlet Fitting: Not required.
17. Trap Material: Cast iron.
18. Trap Pattern: Standard P-trap.
19. Trap Features: Integral trap guard device.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Each fixture shall be vented and trapped. Each vent shall be extended through roof, or shall be loop vented into a common main, acceptable by code. Where a vertical vent riser connects to another vent riser, an inverted wye fitting shall be provided.
- B. Provide Trap Guard Device(s) for the outlet of all drains in this section including, but not limited to, floor drains, floor sinks, trench drains, channel drains, open trap hub drains).
- C. Install floor drains at low points of surface areas to be drained. Set grates of floor drains and floor sinks flush with finished floor, unless otherwise indicated.
 1. Position floor drains for easy access and maintenance.
 2. Set floor drains below elevation of surrounding finished floor to allow floor drainage.
 3. Set with grates depressed according to the following drainage area radii:
 - a. Radius, 30 Inches or Less: Equivalent to 1 percent slope, but not less than 1/4-inch total depression.
 - b. Radius, 30 to 60 Inches: Equivalent to 1 percent slope.
 - c. Radius, 60 Inches or Larger: Equivalent to 1 percent slope, but not greater than 1-inch total depression.
 4. Install floor-drain flashing collar or flange, so no leakage occurs between drain and adjoining flooring.
 - a. Maintain integrity of waterproof membranes where penetrated.
 5. Install individual traps for floor drains connected to sanitary building drain, unless otherwise indicated.
- D. Install open drain fittings with top of hub 2 inches above floor.

3.2 CONNECTIONS

- A. Comply with requirements in Section 22 13 16 "Sanitary Waste and Vent Piping" for piping installation requirements. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Comply with requirements in Section 22 13 19 "Sanitary Waste Piping Specialties" for backwater valves, air admittance devices and miscellaneous sanitary drainage piping specialties.
- C. Comply with requirements in Section 22 13 23 "Sanitary Waste Interceptors" for grease interceptors, grease-removal devices, oil interceptors, sand interceptors, and solid interceptors.
- D. Install piping adjacent to equipment to allow service and maintenance.
- E. Ground equipment according to Section 26 05 26 "Grounding and Bonding for Electrical Systems."
- F. Connect wiring according to Section 26 05 19 "Low-Voltage Electrical Power Conductors and Cables."

3.3 LABELING AND IDENTIFYING

- A. Distinguish among multiple units, inform operator of operational requirements, indicate safety and emergency precautions, and warn of hazards and improper operations, in addition to identifying unit. Nameplates and signs are specified in Section 22 05 53 "Identification for Plumbing Piping and Equipment."

3.4 PROTECTION

- A. Protect drains during remainder of construction period to avoid clogging with dirt or debris and to prevent damage from traffic or construction work.
- B. Place plugs in ends of uncompleted piping at end of each day or when work stops.

END OF SECTION