

**SECTION 22 40 00
PLUMBING FIXTURES**

PART 1 - GENERAL

1.1 DESCRIPTION

- A. Plumbing fixtures, associated trim and fittings necessary to make a complete installation from wall or floor connections to rough piping, and certain accessories.

1.2 RELATED WORK

- A. Sealing between fixtures and other finish surfaces: Section 07 92 00, JOINT SEALANTS.
- B. Flush panel access doors: Section 08 31 13, ACCESS DOORS AND FRAMES.
- C. Section 22 05 11, COMMON WORK RESULTS FOR PLUMBING.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Submit plumbing fixture information in an assembled brochure, showing cuts and full detailed description of each fixture.
- C. Submit Operation and Training Manuals including dates of required maintenance in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.

1.4 APPLICABLE PUBLICATIONS

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by the basic designation only.
- B. The American Society of Mechanical Engineers (ASME):
 - A112.6.1M-08.....Floor Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use
 - A112.18.1-05.....Faucets
 - A112.18.3-02.....Backflow Protection Devices for Faucets with Side Spray
 - A112.19.1-08.....Enameled Cast Iron Plumbing fixtures
- C. American Society for Testing and Materials (ASTM):
 - A276-2008a.....Standard Specification for Stainless Steel Bars and Shapes
- D. National Association of Architectural Metal Manufacturers (NAAMM): NAAMM AMP 500-06
 - Metal Finishes Manual (2006)
- E. American Society of Sanitary Engineers (ASSE):
 - 1001-08.....Integral, Atmospheric Vacuum Breakers
 - 1011-04.....Hose-Connection Vacuum Breakers

1019-04.....Vacuum Breaker Wall Hydrants, Freeze Resistant,
Automatic Draining Type

61-08.....Drinking Water System Components-Health Effects

F. American with Disabilities Act (A.D.A) Section 4-19.4 Exposed Pipes and
Surfaces

PART 2 - PRODUCTS

2.1 STOPS

- A. Provide lock-shield loose key or screw driver pattern angle stops, straight stops or stops integral with faucet, with each compression type faucet whether specifically called for or not, including sinks in wood and metal casework ASME A112.18.1M. Locate stops centrally below fixture in an accessible location.
- B. Furnish keys for lock shield stops to Contracting Officers Technical Representative (COTR).
- C. Supply risers from stops not integral with faucet shall be chrome plated copper flexible tubing or flexible stainless steel with inner core of non-toxic polymer. Exposed supply pipe from wall to angle stop shall be chrome plated, rigid threaded IPS copper alloy pipe, i.e. red brass pipe nipple.

2.2 ESCUTCHEONS

- A. Heavy type, chrome plated, with set screws. Provide for piping serving plumbing fixtures and at each wall, ceiling and floor penetrations in exposed finished locations and within cabinets and millwork.

2.3 FAUCETS

- A. Faucet Type 6
 - 1. Sink Faucet: deck mount, Single Lever Handle Control with side hand spray, 254 mm (10 inch) spout, chrome plated solid cast brass construction, vandal resistant, heavy-duty single lever handle, center set. Control shall be washerless ceramic disc cartridge type. Provide laminar flow control device, adjustable hot water limit stop, and vandal proof screws, 6.6 Lpm (1.75 gpm) maximum flow, NSF 61, ANSI A112.18.1M.

2.4 SINKS

- A. Dimensions for sinks are specified, length by width (distance from wall) and depth.
- B. (P-401) Sink, handicap accessible, single compartment, wall mount, seamless Type 304 stainless steel, 482 mm (19 inch) x 533 mm (21 inch) x 203 mm (8 inch) deep, vertical and horizontal radius basin corners, basin drain center in the rear of the bowl for handicap compliance, ASME A112.19.3M.

1. Faucet: Single Lever Handle Sink Faucet Type 6.
2. Drain: Cast or wrought brass with flat grid strainer and offset tailpiece, chrome plated. Provide handicap compliant waste pipe cover in accordance with A.D.A 4-19.4.
3. Stops: Angle type, see paragraph 2.1 Stops. Provide handicap compliant supply riser cover in accordance with A.D.A 4-19.4.
4. Trap: Cast copper alloy, 40 by 32 mm (1-1/2 by 1-1/4 inch) P-trap. Adjustable with connected elbow and 1.4 mm thick (17 gauge) tubing extensions to wall. Exposed metal trap surface and connection hardware shall be chrome plated with a smooth bright finish. Set trap parallel to wall. Provide handicap compliant waste pipe cover in accordance with A.D.A 4-19.4.

2.13 EMERGENCY FIXTURES

(P-708) Emergency Eye and Face Wash (Wall Mounted): CRS, wall mounted, foot pedal control. Mount eye and face wash spray heads 1067 mm (42 inches) above finished floor. Pedal shall be wall mounted, entirely clear of floor, and be hinged to permit turning up. Receptor shall be complete with drain plug with perforated strainer, P-trap and waste connection to wall with escutcheon.

2.14 HYDRANT, HOSE BIBB AND MISCELLANEOUS DEVICES

- A. (P-804) Washing Machine Supply and Drain Units: Fabricate of 16-gage steel with highly corrosion resistant epoxy finish. Unit to have 50 mm (2-inch) drain connection, 15 mm (1/2-inch) combination MPT brass sweat connection, ball type shut-off valve, 50 mm (2-inch) cast brass P-trap. Centerline of box shall be 1100 mm (44 inches) above finished floor.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Fixture Setting: Opening between fixture and floor and wall finish shall be sealed as specified under Section 07 92 00, JOINT SEALANTS.
- B. Supports and Fastening: Secure all fixtures, equipment and trimmings to partitions, walls and related finish surfaces. Exposed heads of bolts and nuts in finished rooms shall be hexagonal, polished chrome plated brass with rounded tops.
- C. Toggle Bolts: For hollow masonry units, finished or unfinished.
- D. Expansion Bolts: For brick or concrete or other solid masonry. Shall be 6 mm (1/4-inch) diameter bolts, and to extend at least 75 mm (3-inches) into masonry and be fitted with loose tubing or sleeves extending into masonry. Wood plugs, fiber plugs, lead or other soft metal shields are prohibited.

- E. Power Set Fasteners: May be used for concrete walls, shall be 6 mm (1/4-inch) threaded studs, and shall extend at least 35 mm (1-1/4 inches) into wall.
- F. Tightly cover and protect fixtures and equipment against dirt, water and chemical or mechanical injury.
- G. Polished chromium-plated pipe, valves, and fittings shall be provided where exposed to view. Angle stops, straight stops, stops integral with the faucets, or concealed type of lock-shield, and loose-key pattern stops for supplies with threaded, sweat or solvent weld inlets shall be furnished and installed with fixtures.
- H. Use manufacturer's roughing-in data if roughing-in data are not indicated.
- I. Assemble fixtures, trim, fittings, and other components according to manufacturers' written instructions.

3.2 CLEANING

- A. At completion of all work, fixtures, exposed materials and equipment shall be thoroughly cleaned.

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