

DIVISION 22 – PLUMBING
SECTION 22 42 16.16 – COMMERCIAL SINKS

1. GENERAL

1.1 WORK INCLUDES

A. Base Bid:

1. Plumbing Contractor
 - a. Utility sinks.
 - b. Sink faucets.

1.2 SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for sinks.
2. Include rated capacities, operating characteristics, electrical characteristics,, and furnished specialties and accessories.

B. INFORMATIONAL SUBMITTALS

1. Coordination Drawings: Counter cutout templates for mounting of counter-mounted lavatories.

C. CLOSEOUT SUBMITTALS

1. Maintenance Data: For sinks to include in maintenance manuals.

D. MAINTENANCE MATERIAL SUBMITTALS

1. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
2. Faucet Washers and O-Rings: Equal to 10 percent of amount of each type and size installed.
3. Faucet Cartridges and O-Rings: Equal to 5 percent of amount of each type and size installed.

2. PRODUCTS

2.1 UTILITY SINKS

- A. Utility Sinks : Stainless steel, counter mounted.

1. Fixture:
 - a. Standard: ASME A112.19.3/CSA B45.4.
 - b. Type: Ledge back.
 - c. Number of Compartments: One, Two, Three.
 - d. Overall Dimensions: .
 - e. Metal Thickness: 0.050 inch (1.3 mm), .
 - f. Compartment:
 - 1) Dimensions: .
 - 2) Drain: Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain, Grid with NPS 2 (DN 50) tailpiece and twist drain, NPS 1-1/2 (DN 40) tailpiece with stopper, .
 - 3) Drain Location: Centered in compartment, Near back of compartment, Near left side of compartment, Near right side of compartment, .
 - g. Each Compartment:
 - 1) Dimensions: .
 - 2) Drains: Grid with NPS 1-1/2 (DN 40) tailpiece and twist drain, Grid with NPS 2 (DN 50) tailpiece and twist drain, NPS 1-1/2 (DN 40) tailpiece with stopper, .
 - 3) Drain Location: Centered in compartment, Near back of compartment, .
2. Supply Fittings:
 - a. Standard: ASME A112.18.1/CSA B125.1.
 - b. Supplies: Chrome-plated brass compression stop with inlet connection matching water-supply piping type and size.
 - 1) Operation: Loose key, Wheel handle, .
 - 2) Risers: NPS 1/2 (DN 15), chrome-plated, rigid-copper pipe, chrome-plated, soft-copper flexible tube, ASME A112.18.6, braided or corrugated stainless-steel flexible hose.
3. Waste Fittings:
 - a. Standard: ASME A112.18.2/CSA B125.2.
 - b. Trap(s):
 - 1) Size: NPS 1-1/2 (DN 40), NPS 2 (DN 50).
 - 2) Material: Chrome-plated, two-piece, cast-brass trap and swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall, two-piece, cast-brass trap and ground-joint swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall, <Insert trap type>; and chrome-plated brass or steel wall flange.
 - 3) Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch- (0.30-mm-) thick stainless-steel tube to wall; and stainless-steel wall flange.
 - c. Continuous Waste:
 - 1) Size: NPS 1-1/2 (DN 40), NPS 2 (DN 50).

2) Material: Chrome-plated, 0.032-inch- (0.83-mm-) thick brass tube.

4. Mounting: On counter with sealant.

2.2 SINK FAUCETS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for faucet-spout materials that will be in contact with potable water.
- B. Sink Faucets : Manual type, single-control, two-lever-handle, mixing valve.
 - 1. Commercial, Solid-Brass Faucets.
 - 2. General-Duty, Solid-Brass Faucets.
 - 3. Copper- or Brass-Underbody Faucets.
 - 4. Standard: ASME A112.18.1/CSA B125.1.
 - 5. General: Include hot- and cold-water indicators; coordinate faucet inlets with supplies and fixture hole punchings; coordinate outlet with spout and sink receptor.
 - 6. Body Type: Centerset, Widespread, Single hole, .
 - 7. Body Material: Commercial, solid brass, General-duty, solid brass, Copper or brass underbody.
 - 8. Finish: Chrome plated, Polished chrome plate, .
 - 9. Maximum Flow Rate: 2.2 gpm (8.3 L/min.), 4.0 gpm (15 L/min.), .
 - 10. Handle(s): Lever, Cross, four arm, Wrist blade, 4 inches (102 mm), Elbow, 6 inches (152 mm), Not applicable.
 - 11. Mounting Type: Deck, concealed, Deck, exposed, Back/wall, exposed.
 - 12. Spout Type: Rigid, solid brass, Rigid, solid brass with wall brace, Swing, round tubular, Swing, shaped tube, Swing, solid brass, Rigid gooseneck, Swivel gooseneck, .
 - 13. Vacuum Breaker: Required, Not required, for hose outlet.
 - 14. Spout Outlet: Aerator, Laminar flow, Hose thread according to ASME B1.20.7, Plain end, Spray, .

2.3 SUPPLY FITTINGS

- A. NSF Standard: Comply with NSF/ANSI 61, "Drinking Water System Components - Health Effects," for supply-fitting materials that will be in contact with potable water.
- B. Standard: ASME A112.18.1/CSA B125.1.
- C. Supply Piping: Chrome-plated brass pipe or chrome-plated copper tube matching water-supply piping size. Include chrome-plated brass or stainless-steel wall flange.
- D. Supply Stops: Chrome-plated brass, one-quarter-turn, ball-type or compression valve with inlet connection matching supply piping.
- E. Operation: Loose key, Wheel handle.
- F. Risers:

1. NPS 3/8 (DN 10), NPS 1/2 (DN 15),
2. Chrome-plated, rigid-copper pipe, Chrome-plated, soft-copper flexible tube, ASME A112.18.6, braided or corrugated stainless-steel flexible hose.

2.4 WASTE FITTINGS

- A. Standard: ASME A112.18.2/CSA B125.2.
- B. Drain: Grid type with NPS 1-1/2 (DN 40) offset and straight tailpiece.
- C. Trap:
 1. Size: NPS 1-1/2 (DN 40).
 2. Material: Chrome-plated, two-piece, cast-brass trap and swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall, two-piece, cast-brass trap and ground-joint swivel elbow with 0.032-inch- (0.83-mm-) thick brass tube to wall, one-piece, cast-brass trap with swivel 0.029-inch- (73-mm-) thick tubular brass wall bend; and chrome-plated brass or steel wall flange.
 3. Material: Stainless-steel, two-piece trap and swivel elbow with 0.012-inch- (0.30-mm-) thick stainless-steel tube to wall; and stainless-steel wall flange.

2.5 GROUT

- A. Standard: ASTM C 1107/C 1107M, Grade B, post-hardening and volume-adjusting, dry, hydraulic-cement grout.
- B. Characteristics: Nonshrink; recommended for interior and exterior applications.
- C. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

3. EXECUTION

3.1 EXAMINATION

- A. Examine roughing-in of water supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before sink installation.
- B. Examine walls, floors, and counters for suitable conditions where sinks will be installed.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Install sinks level and plumb according to roughing-in drawings.

- B. Install supports, affixed to building substrate, for wall-hung sinks.
- C. Install accessible wall-mounted sinks at handicapped/elderly mounting height according to ICC/ANSI A117.1.
- D. Set floor-mounted sinks in leveling bed of cement grout.
- E. Install water-supply piping with stop on each supply to each sink faucet.
 - 1. Exception: Use ball or gate valves if supply stops are not specified with sink. Comply with valve requirements specified in Section 220523.12 "Ball Valves for Plumbing Piping"
 - 2. Install stops in locations where they can be easily reached for operation.
- F. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons if required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
- G. Seal joints between sinks and counters, floors, and walls using sanitary-type, one-part, mildew-resistant silicone sealant. Match sealant color to fixture color. Comply with sealant requirements specified in Section 079200 "Joint Sealants."
- H. Install protective shielding pipe covers and enclosures on exposed supplies and waste piping of accessible sinks. Comply with requirements in Section 220719 "Plumbing Piping Insulation."

3.3 CONNECTIONS

- A. Connect sinks with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
- B. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
- C. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

3.4 ADJUSTING

- A. Operate and adjust sinks and controls. Replace damaged and malfunctioning sinks, fittings, and controls.
- B. Adjust water pressure at faucets to produce proper flow.

3.5 CLEANING AND PROTECTION

- A. After completing installation of sinks, inspect and repair damaged finishes.

- B. Clean sinks, faucets, and other fittings with manufacturers' recommended cleaning methods and materials.
- C. Provide protective covering for installed sinks and fittings.
- D. Do not allow use of sinks for temporary facilities unless approved in writing by Owner.

END OF SECTION