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SECTION 224713 - DRINKING FOUNTAINS

TIPS:

To view non-printing **Editor's Notes** that provide guidance for editing, click on MasterWorks/Single-File Formatting/Toggle/Editor's Notes.

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PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Drinking fountains.
2. Bottle filling stations.
3. Supports.

1.2 ACTION SUBMITTALS

- #### A. Product Data: For each type of drinking fountain and bottle filling station.

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

B. Sustainable Design Submittals:

1. Product Data: For water consumption.
2. Product Data: For recycled content, indicating postconsumer and preconsumer recycled content and cost.

C. Shop Drawings:

1. Include diagrams for power wiring.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Data: For **[drinking fountains]** **[and]** **[bottle filling stations]** to include in maintenance manuals.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
1. Filter Cartridges: Equal to **<Insert number>** percent of quantity installed for each type and size indicated, but no fewer than **<Insert number>** of each.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Standards:

1. Drinking fountains and bottle filling stations intended to convey or dispense water for human consumption are to comply with the U.S. Safe Drinking Water Act (SDWA), requirements of the Authority Having Jurisdiction (AHJ), and with NSF 61 or NSF 372, or be certified in compliance with NSF 61 or NSF 372 by an ANSI-accredited third-party certification body, that the weighted average lead content at wetted surfaces is less than or equal to 0.25 percent.
2. **[Comply with ASME A112.19.3/CSA B45.4 for stainless steel drinking fountains and bottle filling stations.]**
3. **[Comply with ASME A112.19.2/CSA B45.1 for vitreous china drinking fountains.]**
4. Comply with NSF 42 and NSF 53 for water filters for drinking fountains and bottle filling stations.
5. Comply with ICC A117.1 for accessible drinking fountains and bottle filling stations.

2.2 DRINKING FOUNTAINS

- A. Drinking Fountains - Pedestal Concrete <Insert drawing designation>: [wheelchair accessible] [, pet fountain] [, freeze resistant].
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [GUF98] [GUF99] [GUT18-PF] [GUT19-PF] [GVF18] [GVF19] [GVJ18] [GVJ19] [GVM48] [GVM49] [GVQ88] [GVQ89] or comparable product by one of the following:
 - a. Haws Corporation.
 - b. Petersen Manufacturing Co., Inc.
 - c. Stern-Williams Co., Inc.
 - d. <Insert manufacturer's name>.
 2. Standards:
 - a. Comply with:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
 3. Pedestal:
 - a. Type: [Square] [Round] [with side receptor(s)] [with offset to receptor] [, freeze resistant] [, pet option].
 - b. Material: Reinforced [brown] [tan] concrete aggregate.
 4. Receptor(s):
 - a. Number: [One] [Two] [Three].
 - b. Material: Type 304 stainless steel polished to a #4 satin finish.
 - c. Shape: [Square] [Round].
 - d. Bubbler: One for each receptor, stainless steel, anti-rotation, non-squirt design.
 - e. Drain: Grid type with NPS 1-1/4 (DN 32) tailpiece.
 5. Maximum Water Flow: 0.5 gpm (0.0316 L/s).
 6. Controls: Pneumatic push-button and air-actuated valve.
 7. Access to Internal Components: Panel in pedestal.
 8. Supply: NPS 1/2 (DN 15) with shutoff valve and 100-mesh strainer.
 9. Drain Piping: NPS 1-1/4 (DN 32) minimum trap and waste.
 10. Pet Fountain Receptor: Housing material and finish to match fixture, push-button control, waterspout, Type 304 stainless steel bowl polished to a #4 satin finish, grid drain.
 11. Freeze-Resistant Supply Fittings: Below-grade water supply connection with PVC housing cylinder containing removable control valve assembly, shut-off, check valve(s), and tubing for supply riser(s) and pneumatic push button(s). [Provide non-pollutable piston valve assembly to prevent cross contamination with ground water.]

- a. Bury Depth, Grade to Valve Components: **36 inches to 67 inches (915 mm to 1702 mm)** adjustable depth.
- b. Total Number of Stations: [**One**] [**Two**] [**Three**] [**Four**].

12. Accessories:

- a. In-ground, freeze-resistant valve access box with lid.
- b. Child height 30-inch bubbler height.
- c. Foot spray.
- d. Hose bibb, compression, with hose threaded outlet and vacuum breaker.
- e. Hose bibb, loose key, with hose threaded outlet and vacuum breaker.
- f. Hose bibb, loose key, recessed vandal resistant, with hose threaded outlet and vacuum breaker.
- g. In-ground mounting plate.
- h. Jug filler, spigot, self-closing valve with plain end.
- i. Jug filler, push-button, self-closing valve with plain end.
- j. Square concrete step for pedestal fountain.

B. Drinking Fountains - Outdoor, Pedestal, Stainless Steel <Insert drawing designation> [**bottle filler**] [, **wheelchair accessible**] [**pet fountain**] [, **freeze resistant**].

1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [**GRF35**] [**GRM45**] [**GRQ45**] [**GRJ85**] [**GYM74**] [**GYV34**] [**GYQ84**] [**GYW44**] [**GRT75-PF**] [**GSF55**] [**GSM55**] [**GSQ45**] [**GSJ95**] [**GSF55**] [**GWQ84**] [**M-PM14**] [**M-PM24**] [**M-PM34**] [**M-PM74**] or comparable product by one of the following:
 - a. Most Dependable Fountains, Inc.
 - b. Stern-Williams Co., Inc.
 - c. <Insert manufacturer's name>.
2. Standards:
 - a. Comply with:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
3. Pedestal: [**Square**] [**Round**], [**with offset to receptor**] [**with side receptor(s)**] [, **with bottle filler**] [, **freeze resistant**] [, **pet fountain**].
 - a. Material: 12-gage Type 304 stainless steel.
 - b. Finish: [**Stainless steel #4 satin finish**] [**Powder coat with manufacturer's standard colors offered**] <Insert color>.
4. Receptor(s):

- a. Number: **[One]** **[Two]** **[Three]**.
 - b. Material: 18-gage Type 304 stainless steel polished to a #4 satin finish.
 - c. Shape: **[Square]** **[Round]**.
 - d. Bubbler: One for each receptor, stainless steel, anti-rotation, non-squirt design.
 - e. Drain: Grid type with **NPS 1-1/4 (DN 32)** tailpiece.
5. Maximum Water Flow: **0.5 gpm (0.0316 L/s)**.
6. Control:
- a. Push button with cartridge style valve with front access adjustable stream regulator.
 - b. Pneumatic push-button and air-actuated valve.
7. Access to Internal Components: Panel in pedestal.
8. Supply Piping: **NPS 1/2 (DN 15)**. Provide with shutoff valve and 100-mesh strainer.
9. Drain Piping: **NPS 1-1/4 (DN 32)** minimum.
10. Bottle Filler: Integrated with fixture material and finish.
- a. Activation:
 - 1) Dual operation: Pneumatic hemispherical push button requiring less than 5 pounds of force with air-actuated valve and 9-volt infrared sensor and battery power pack.
 - 2) Pneumatic hemispherical push button requiring less than 5 pounds of force with air-actuated valve.
 - b. Spout: Laminar flow spout preset with 20-second automatic shut-off timer.
 - c. Drain: Type 304 stainless steel screen with waste tube connector.
 - d. Filtration: Lead, chlorine, and cyst reduction filter rated for 1500-gallon effective lifespan.
11. Freeze-Resistant Supply Fittings: Below-grade water supply connection with PVC housing cylinder containing removable air-actuated control valve assembly, shut-off, check valve(s), and tubing for supply riser(s) and pneumatic push button(s). **[Provide non-pollutable piston valve assembly to prevent cross-contamination with ground water.]**
- a. Bury Depth, Grade to Valve Components: **36 to 67 inches (915 to 1702 mm)** adjustable depth.
 - b. Total Number of Stations: **[One]** **[Two]** **[Three]** **[Four]**.
12. Pet Fountain Receptor: Housing material and finish to match fixture, push-button control, waterspout, Type 304 stainless steel bowl polished to a #4 satin finish, grid drain.
13. Accessories:
- a. In-ground (freeze-resistant) valve access box with lid.
 - b. Child height 30-inch" bubbler height.
 - c. Foot spray.
 - d. Hose bibb, compression, with hose threaded outlet and vacuum breaker.
 - e. Hose bibb, loose key, with hose threaded outlet and vacuum breaker.

- f. Hose bibb, loose key, recessed vandal resistant, with hose threaded outlet and vacuum breaker.
 - g. In-ground mounting plate.
 - h. Jug filler, spigot, self-closing valve with plain end.
 - i. Jug filler, push-button, self-closing valve with plain end.
- C. Drinking Fountains - Wall-Mounted Concrete <Insert drawing designation> [, wheelchair accessible] [, freeze resistant].
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [GVC58] [GVC59] or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Filtrine Manufacturing Company.
 - c. Halsey Taylor.
 - d. <Insert manufacturer's name>.
 2. Standards:
 - a. Comply with:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
 3. Receptor: Square, 18-gage Type 304 stainless steel polished to a #4 satin finish.
 4. Casing Arm: Reinforced [brown] [tan] concrete aggregate.
 5. Maximum Water Flow: 0.5 gpm (1.89 L/min).
 6. Control: Pneumatic push-button and air-actuated valve.
 7. Drain: Grid type with NPS 1-1/4 (DN 32) minimum waste.
 8. Supply Piping: NPS 1/2 (DN 15). Provide with shutoff valve and 100-mesh strainer.
 9. Waste Piping: NPS 1-1/4 (DN 32).
 10. Retain "Freeze-Resistant Supply and Fittings" Subparagraph below for freeze-resistant drinking fountains. Assembly is intended for installation above ground directly behind unit in an enclosed area that remains above freezing.
 11. Freeze-Resistant Supply and Fittings: Above-ground, freeze-resistant, galvanized steel box with louvered cover, containing air-actuated control valve(s) assembly, drain down device, p-trap waste fitting, supply riser(s) and tubing for pneumatic push button(s).
 - a. Total number of stations: One.
 12. Drinking Fountain Mounting Height: [Standard] [Disabled accessible in accordance with ICC A117.1] [Child-height for children's use].
 13. Accessories:
 - a. Concealed support carrier.

- D. Drinking Fountains - Wall mounted, stainless steel <Insert drawing designation> [bi-level] [, bottle filler] [, vandal resistant] [, wheelchair accessible] [, freeze resistant].
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [A171400S-FG-VR] [A172400S-FG-VR] [A171400S-FG-VR-BFS] [A172400S-FG-VR-BFS] [A171-UG] [A172-UG] [A171-UG-BF] [A172-UG-BF] [A171-UG-SO] [A172-UG-SO] [A171-UG-SO-BF] [A172-UG-SO-BF] [A171-UG-SOC] [A172-UG-SOC] [A171-UG-SOC-BFS] [A172-UG-SOC-BF] [A171-UG-VR] [A172-UG-VR] [A171-UG-VR-BFS] [A172-UG-VR-BF] [A171-UG-VR-D1-BF] [A172-UG-VR-D1-BF] [A191] [A191-BF] [A192] [A192-BF] [A4A1] [A4B1] [M-DFBF] [GRC75] [GSC55] [GWA74] [GWB24] [GRE24] [GYE14] [GYE24] or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Filtrine Manufacturing Company.
 - c. <Insert manufacturer's name>.
 2. Standards:
 - a. Comply with:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
 3. Receptor:
 - a. Shape: [Square] [Round].
 - b. Material: Type 304 stainless steel polished to a #4 satin finish.
 4. Bubblers: [One] [Two], [flexible bubbler with gray finish,] [lead-free stainless steel bubbler], anti-rotation, non-squirt design.
 5. Maximum Water Flow: 0.5 gpm (0.0316 L/s).
 6. Cabinet: [Stainless steel with #4 satin finish] [Steel with powder coat finish] [Stainless steel with powder coat finish] <Insert color>.
 7. Back Panel: Stainless steel wall plate 1/4 inch (6 mm) thick with finish to match cabinet.
 8. Accessible Drinking Fountain Orientation: On [left] [right] side when facing unit.
 9. Control: [Push button with cartridge style valve with front access adjustable stream regulator] [Pneumatic push button with air-actuated valve].
 10. Control: Stainless steel lead-free bubbler with push button.
 11. Control: Infrared sensor preset with 20-second maximum run time.
 - a. Sensor Location: [Front apron] [Undermount concealed].
 - b. Valve: 9-volt dc electronic solenoid valve.
 12. Control: [Push button with cartridge style valve with front access adjustable stream regulator] [Undermount concealed infrared sensor preset with 20-second maximum run time].

- a. Sensor Location: Undermount concealed.
 - b. Valve: 9-volt dc electronic solenoid valve with battery pack and wire harness.
13. Bottle Filler: Accessible vandal-resistant design with coordinated installation for single station drinking fountain and bi-level accessible station. Drinking fountain basin will serve as drain.
- a. Housing: 18-gage Type 304 stainless steel with exposed surfaces polished to a #4 satin finish.
 - b. Activation:
 - 1) 9-volt infrared sensor, preset with 20-second automatic shut-off timer with **[115-volt plug-in transformer]** **[battery power pack]**.
 - 2) Pneumatic hemispherical push button requiring less than 5 pounds of force with air-actuated valve.
 - c. Spout: Laminar flow spout. Fill rate **1.0 gpm (0.6314 L/s)**.
 - d. Bottle Counter Display: LED screen will activate during use to display number of uses that equate to 16-ounce bottles, and water filter status.
 - 1) Provide bottle counter that does not reset due to filter replacement or power interruption.
14. Bottle Filler: Accessible contour design for coordinated installation with single station drinking fountain and bi-level accessible station. Drinking fountain basin will serve as drain.
- a. Housing: Minimum 20-gage Type 304 stainless steel with exposed surfaces polished to a #4 satin finish with contour to align with drinking fountain basin. Bottle filler area of antimicrobial impact-resistant ABS illuminated by LED light during activation.
 - b. Activation:
 - 1) 9-volt infrared sensor, preset with 20-second automatic shut-off timer with **[115-volt plug-in transformer]** **[battery power pack]**.
 - 2) Pneumatic hemispherical push button requiring less than 5 pounds of force for air-actuated valve.
 - c. Spout: Laminar flow spout. Fill rate **1.0 gpm (0.6314 L/s)**.
 - d. Bottle Counter Display: LED screen will activate during use to display number of uses that equate to 16-ounce bottles, and water filter status.
 - 1) Provide bottle counter that does not reset due to filter replacement or power interruption.
15. Bottle Filler: Extra height, integrated with fixture material and finish.
- a. Activation:

- 1) Pneumatic hemispherical push button requiring less than 5 pounds of force for air-actuated valve.
 - 2) 9-volt infrared sensor, preset with 20-second automatic shut-off timer with **[115-volt plug-in transformer] [battery power pack]**.
 - b. Spout: Laminar flow spout. Fill rate **1.0 gpm (0.6314 L/s)**.
 - c. Drain: Type 304 stainless steel screen with waste tube connector.
 - d. Filtration: Lead, chlorine, and cyst reduction filter rated for 1500-gallon effective lifespan.
16. Freeze-Resistant Supply and Fittings: Above-ground, freeze-resistant, galvanized steel box with louvered cover, containing control valve(s) assembly, drain down device, p-trap waste fitting, supply riser(s) and tubing for pneumatic push button(s).
- a. Total Number of Stations: **[One] [Two] [Three]**.
17. Drain: Grid with **NPS 1-1/4 (DN 32)** tailpiece.
18. Supply Piping: **NPS 1/2 (DN 15)**. Provide with shutoff valve and 100-mesh strainer.
19. Waste Fitting: ASME A112.18.2/CSA B125.2, **NPS 1-1/4 (DN 32)** p-trap and waste.
20. Filtration:
- a. Lead, chlorine, and cyst reduction filter rated for **[1500 gal (6800 L)] [3000 gal (13600 L)]**-gallon effective lifespan.
 - b. Provide **[EZ Door]** filter assembly with lockable cover, allowing access beneath skirt for replacement with lead, chlorine, and cyst reduction filter rated for **1500 gal (6800 L)** effective lifespan. Furnish key for each unit having lockable cover furnished for Project.
21. Accessories:
- a. Back panel splash plate.
 - b. Cane skirt kit for upper unit (bi-level fountains).
 - c. Concealed support carrier.
 - d. Drop-down filter access door.
- E. Drinking Fountains - Wall mounted, white enamel coated cast iron **<Insert drawing designation>**: **[Bi-level] [Trough] [wheelchair accessible]**.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; **[A151J] [A112J] [A152J]** or comparable product by one of the following:
 - a. Haws Corporation.
 - b. Halsey Taylor.
 - c. **<Insert manufacturer's name>**.
 2. Standards:
 - a. Comply with:

- 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
3. Material: Cast iron with white enamel coating.
 4. Bubblers: [**One**] [**Two**], [**lead-free stainless steel bubbler**] [**push-button bubbler, stainless steel, lead-free**], located on deck with anti-rotation, non-squirt design.
 5. Control:
 - a. Push button with cartridge style valve with front access adjustable stream regulator.
 6. Maximum Water Flow: **0.5 gpm (0.0316 L/s)**.
 7. Drain: Grid type with **NPS 1-1/4 (DN 32)** tailpiece.
 8. Supply: **NPS 3/8 (DN 10)** with shutoff valve.
 9. Waste Fitting: ASME A112.18.2/CSA B125.2, **NPS 1-1/4 (DN 32)** chrome-plated brass P-trap and waste.
 10. Freeze-Resistant Supply and Fittings: Above-ground, freeze-resistant, galvanized steel box with louvered cover, containing air-actuated control valve(s) assembly, drain down device, p-trap waste fitting, supply riser(s) and tubing for pneumatic push button(s).
 - a. Total Number of Stations: [**One**] [**Two**].
 11. Accessories:
 - a. Concealed support carrier.
 12. Drinking Fountain Mounting Height: [**Standard**] [**Disabled accessible in accordance with ICC A117.1**] [**Child-height for children's use**].
- F. Drinking Fountains - Stainless Steel wall mounted with trim panel <**Insert drawing designation**>: [, **bi-level**] [, **bottle filler**] [, **vandal resistant**] [, **semi-recessed**].
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [**A131-VR**] [**A132-VR**] [**A151-FG**] [**A152-FG**] [**A151-VR**] [**A152-VR**] [**A131-VR-BF**] [**A132-VR-BF**] [**A151-FG-BF**] [**A152-FG-BF**] [**A151-VR-BF**] [**A152-VR-BF**] [**GRD65-BP6**] [**GSD75-BP6**] [**M-OBR4-GRC**] [**M-OBR4-GRD**] or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Oasis International.
 - c. <**Insert manufacturer's name**>.
 2. Standards:
 - a. Comply with:
 - 1) NSF 61 and NSF 372.

- 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
3. Receptor Shape: [**Square**] [**Round**].
 4. Back Panel: Stainless steel wall plate behind drinking fountain with #4 satin finish.
 5. Bubbler: [**Flexible bubbler with gray finish**] [**Stainless steel bubbler**], located on deck, anti-rotation, non-squirt design.
 6. Maximum Water Flow: **0.5 gpm (0.0316 L/s)**.
 7. Accessible Drinking Fountain Orientation: On [**left**] [**right**] side when facing unit.
 8. Control: Push button with cartridge style valve with front access adjustable stream regulator.
 9. Drain: Grid type with **NPS 1-1/4 (DN 32)** tailpiece.
 10. Supply Piping: **NPS 1/2 (DN 15)**. Provide with shutoff valve and 100-mesh strainer.
 11. Waste Fitting: ASME A112.18.2/CSA B125.2, **NPS 1-1/4 (DN 32)** P-trap and waste.
 12. Bottle Filler: Accessible vandal-resistant design integrated into trim panel for single station drinking fountain and bi-level accessible station.
 - a. Activation:
 - 1) 9-volt infrared sensor, preset with 20-second automatic shut-off timer with 115-volt plug-in transformer.
 - 2) Dual control with direct acting push button and 9-volt infrared sensor, preset with 115-volt plug-in transformer.
 - 3) Dual control with direct acting push button and 9-volt infrared sensor, preset with 20-second automatic shut-off timer with battery-powered operation.
 - 4) Push-button control only.
 - b. Spout: Laminar flow spout. Fill rate **1.0 gpm (0.6314 L/s)**.
 - c. Drain: Type 304 stainless steel screen with waste tube connector.
 - d. Filtration: Lead, chlorine, and cyst reduction filter rated for 1500-gallon effective lifespan.
 - e. Bottle Counter Display: LED screen will activate during use to display number of uses that equate to 16-ounce bottles, and water filter status.
 - 1) Provide bottle counter that does not reset due to filter replacement or power interruption.
 13. Accessories:
 - a. Filter access panel (bi-level units).
 - b. Back panel splash plate.
 - c. Cane skirt kit for upper unit (bi-level fountains).
 - d. Concealed support carrier.
 - e. High-polish stainless steel.
 14. Cooling System: Electric, with hermetically sealed compressor, cooling coil, air-cooled condensing unit, corrosion-resistant tubing, refrigerant, corrosion-resistant-metal storage tank, and adjustable thermostat.

- a. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
 - b. Comply with ASHRAE 15, or where applicable, ASHRAE 34.
15. Capacities and Characteristics:
- a. Capacity: **8 gal (30 l)** per hour.
 - b. Ambient-Air Temperature: **90 deg F (32 deg C)**.
 - c. Inlet Water Temperature: **80 deg F (27 deg C)**.
 - d. Cooled-Water Temperature: **50 deg F (10 deg C)**.
 - e. Electrical Characteristics:
 - 1) Motor Horsepower **1/5 HP (149 W)**.
 - 2) Compressor: [**115 Volt, 60 Hertz, 4.6 Amps**] [**220 Volt, 50 Hertz, 2.5 Amps**].
 - 3) Certification: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application. Will conform with NSF/ANSI 61, Section 9 and CHSC 116875.
 - f. Refrigerant: R134a.
 - g. Chilled water lines to be insulated.
16. Support:
- a. Fixture mounting plate with brackets for attaching to wood blocking or substrate.
 - b. In-wall mounting frame to receive fixture trim plate.
- G. Drinking Fountains - Stainless steel, recessed **<Insert drawing designation>**: [**cuspidor**] [**wheelchair accessible**].
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; [**A181**] [**A181CUSP**] [**A180CUSP**] [**A481**] [**A481CUSP**] [**A480CUSP**] or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Filtrine Manufacturing Company.
 - c. **<Insert manufacturer's name>**.
 2. Standards:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
 3. Receptor Shape: Concave with flush wall flange.
 4. Drinking Fountain Bubbler: [**Flexible bubbler with gray finish,**] [**Stainless steel bubbler,**] One, located on deck, anti-rotation, non-squirt design.

5. Maximum Water Flow: **0.5 gpm (0.0316 L/s)**.
 6. Cuspidor: Provide receptor with stainless steel wash-down outlet in lieu of drinking bubbler.
 7. Drinking Fountain Control: Push button with cartridge style valve with front access adjustable stream regulator.
 8. Supply Piping: **NPS 1/2 (DN 15)**. Provide with shutoff valve and 100-mesh strainer.
 9. Drain: Grid with **NPS 1-1/4 (DN 32)** minimum horizontal waste and trap, complying with ASME A112.18.2/CSA B125.2.
 10. Accessories:
 - a. Glass filler.
 - b. High-polish stainless steel.
 11. Support: Mounting frame or brackets for attaching to wood blocking or substrate.
- H. Bottle Filling Station **<Insert drawing designation>**: **[Indoor]** **[Surface-mounted]** **[Semi-recessed]** **[, wheelchair accessible]** **[, vandal-resistant]** **[bi-level]**.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; **[BF3]** **[BF4]** **[BF15]** **[BF16]** **[BFEZ16]** **[BFEZ26]** **[M-OBA4]** or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Oasis International
 - c. **<Insert manufacturer's name>**.
 2. Standards:
 - 1) NSF 61 and NSF 372.
 - 2) Uniform Plumbing Code, National Plumbing Code of Canada (UPC/CUPC)
 - 3) ASME A112.18.1/CSA B125.
 - 4) IAPMO IGC 226-2019
 - 5) ICC A117.1, CSA B651, 2010 ADA Standard for Accessible Design.
 3. Cabinet: Stainless steel with #4 satin finish.
 4. Activation:
 - a. Retain one of first four subparagraphs below.
 - b. Push-button control.
 - c. 9-volt infrared sensor, preset with 20-second automatic shut-off timer with 115-volt plug-in transformer.
 - d. 9-volt infrared sensor, preset with 20-second automatic shut-off timer with battery-powered operation.
 - e. Dual control with direct acting push-button and 9-volt infrared sensor, preset with 20-second automatic shut-off timer with battery-powered operation.
 - f. Dual control with direct acting push-button and 9-volt infrared sensor, preset with 115-volt plug-in transformer.
 5. Water Flow Rate: 1.0 GPM, laminar flow spout.
 6. Drain: Grid type with **NPS 1-1/4 (DN 32)**.

7. Supply: **NPS 3/8 (DN 10)** with shutoff valve and 100-mesh strainer.
8. Filtration: Lead, chlorine, and cyst reduction filter rated for **[1500] [3000]**-gallon effective lifespan.
9. Waste Fitting: ASME A112.18.2/CSA B125.2, **NPS 1-1/4 (DN 32)** p-trap and waste.
10. Accessories:
 - a. Battery-powered sensor control.
 - b. Concealed support carrier.
11. Support: **[Mounting frame or brackets for attaching to wood blocking or substrate] [or] [in wall mounting frame with fixture mounting plate].**

2.3 BOTTLE FILLING STATIONS

- A. Bottle Filling Station **<Insert drawing designation>**: **[Indoor] [Surface-mounted] [Semi-recessed] [, wheelchair accessible] [, vandal-resistant] [bi-level].**
 1. Basis-of-Design Product: Subject to compliance with requirements, provide Murdock Manufacturing; Morris Group International; **[BF3] [BF4] [BF15] [BF16] [BFEZ16] [BFEZ26] [M-OBA4]** or comparable product by one of the following:
 - a. Elkay Manufacturing Co.
 - b. Oasis International.
 - c. **<Insert manufacturer's name>**.
 2. Standards:
 - a. Comply with ASME A112.19.3/CSA B45.4.
 - b. Comply with NSF 61 and NSF 372.
 - c. Comply with ICC A117.1.
 3. Cabinet: Stainless steel with #4 satin finish.
 4. Activation:
 - a. Push-button control.
 - b. 9-volt infrared sensor, preset with 20-second automatic shut-off timer with 115-volt plug-in transformer.
 - c. 9-volt infrared sensor, preset with 20-second automatic shut-off timer with battery-powered operation.
 - d. Dual control with direct acting push button and 9-volt infrared sensor, preset with 20-second automatic shut-off timer with battery-powered operation.
 - e. Dual control with direct acting push button and 9-volt infrared sensor, preset with 115-volt plug-in transformer.
 5. Water Flow Rate: 1.0 GPM, laminar flow spout.
 6. Drain: Grid type with **NPS 1-1/4 (DN 32)**.
 7. Supply: **NPS 3/8 (DN 10)** with shutoff valve and 100-mesh strainer.
 8. Filtration: Lead, chlorine, and cyst reduction filter rated for **[1500] [3000]**-gallon effective lifespan.

9. Waste Fitting: ASME A112.18.2/CSA B125.2, **NPS 1-1/4 (DN 32)** p-trap and waste.
10. Accessories:
 - a. Battery-powered sensor control.
 - b. Concealed support carrier.
11. Support: [**Mounting frame or brackets for attaching to wood blocking or substrate**]
[**or**] [**in wall mounting frame with fixture mounting plate**].

2.4 SUPPORTS

A. Drinking Fountain Carrier:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Josam Company.
 - b. **<Insert manufacturer's name>**.
2. Standard: ASME A112.6.1M.

PART 3 - EXECUTION

3.1 EXAMINATION

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

3.2 INSTALLATION

- A. Install fixtures level and plumb in accordance with roughing-in drawings. For fixtures indicated for children, install at height required by authorities having jurisdiction.
- B. Set pedestal drinking fountains and bottle filling stations on flat surface in accordance with manufacturer's written installation instructions.
- C. Install recessed, drinking fountains and bottle filling stations secured to wood blocking in wall construction.
- D. Install off-the-floor carrier supports, affixed to building substrate, for wall-mounted fixtures.
- E. Install water-supply piping with shutoff valve on supply to each fixture to be connected to domestic-water distribution piping. Use ball[**or gate**] valve. Install valves in locations where

they can be easily reached for operation. Valves are specified in Section 220523.12 "Ball Valves for Plumbing Piping"[**and Section 220523.15 "Gate Valves for Plumbing Piping."**]

- F. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.
- G. Install wall flanges or escutcheons at piping wall penetrations in exposed, finished locations. Use deep-pattern escutcheons where required to conceal protruding fittings. Comply with escutcheon requirements specified in Section 220518 "Escutcheons for Plumbing Piping."
- H. Seal joints between fixtures 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."

3.3 PIPING CONNECTIONS

- A. Connect fixtures 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. Install ball[**or gate**] shutoff valve on water supply to each fixture.[**Install valve upstream from filter for drinking fountain.**] Comply with valve requirements specified in Section 220523.12 "Ball Valves for Plumbing Piping"[**and Section 220523.15 "Gate Valves for Plumbing Piping."**]
- D. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."

3.4 ELECTRICAL CONNECTIONS

- A. Ground equipment in accordance with Section 260526 "Grounding and Bonding for Electrical Systems."
- B. Install electrical devices furnished by manufacturer, but not factory mounted, in accordance with NFPA 70 and NECA 1.
- C. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.
 - 1. Nameplates to be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."
 - 2. Nameplates to be laminated acrylic or melamine plastic signs with a black background and engraved white letters at least **1/2 inch (13 mm)** high.

3.5 ADJUSTING

- A. Adjust fixture flow regulators for proper flow and stream height.

3.6 CLEANING

- A. After installing fixtures, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.
- B. Clean fixtures, on completion of installation, in accordance with manufacturer's written instructions.
- C. Provide protective covering for installed fixtures.
- D. Do not allow use of fixtures for temporary facilities unless approved in writing by Owner.

END OF SECTION 224713