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SECTION 224716 - PRESSURE WATER COOLERS

1. GENERAL
   * + 1. SUMMARY
          1. Section Includes:

Bottle filling stations.

* + - 1. ACTION SUBMITTALS
         1. Product Data: For each type of pressure water cooler and bottle filling station.

Include construction details, material descriptions, dimensions of individual components and profiles, and finishes.

Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

* + - * 1. Shop Drawings:

Include diagrams for power wiring.

* + - 1. CLOSEOUT SUBMITTALS
         1. Maintenance Data: For [**pressure water coolers**] [**and**] [**bottle filling stations**] to include in maintenance manuals.
      2. 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.

Filter Cartridges: Equal to <**Insert number**> percent of quantity installed for each type and size indicated, but no fewer than <**Insert number**> of each.

1. PRODUCTS
   * + 1. PERFORMANCE REQUIREMENTS
          1. Standards:

The U.S. Safe Drinking Water Act (SDWA) has required national compliance with less than or equal to 0.25 percent weighted average lead content at wetted surfaces for pipe, fittings, and devices intended to convey or dispense water for human consumption since January 2014. The IPC and UPC have the same requirements. Items in compliance with NSF 61 and NSF 372 also comply with this requirement. Some manufacturers choose to meet this requirement through independent testing and have "Certified Lead Free" products, which may or may not have NSF 61 or NSF 372 certifications.

Pressure water coolers 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.

Comply with ASHRAE 34 for water coolers. Provide HFC 134a (tetrafluoroethane) refrigerant unless otherwise indicated.

Comply with UL 399.

Comply with ASME A112.19.3/CSA B45.4.

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.

Comply with NSF 42 and NSF 53 for water filters for water coolers and bottle filling stations.

Comply with ICC A117.1 for accessible water coolers and bottle filling stations.

* + - 1. BOTTLE FILLING STATION

Copy "Bottle Filling Station - Recessed, Wall-Mounted, Stainless Steel" Paragraph below and re-edit for each type of bottle filling station required.

Recessed, wall-mounted, bottle filling stations may be paired with other recessed, wall-mounted, pressure water coolers.

Insert drawing designation. Use these designations on Drawings to identify each bottle filling station.

* + - * 1. Bottle Filling Station - Recessed, Wall-Mounted, Stainless Steel: <**Insert drawing designation**>.

Retain "Basis-of-Design Product" Subparagraph and list of manufacturers below to identify a specific product or a comparable product from manufacturers listed.

Basis-of-Design Product: Subject to compliance with requirements, provide **Elkay; Elkay ezH2O In-Wall Bottle Filling Station with Mounting Frame, Filtered** or comparable product by one of the following:

<**Insert manufacturer's name**>

Source Limitations: Obtain recessed, wall-mounted, stainless steel, bottle filling stations from single source from single manufacturer.

Bottle Filler: **[Sensor]** activation **[20-second]** **[automatic shutoff timer]**. Fill rate 0.5 to 1.5 gpm.

Drain: Grid with NPS 1-1/4 tailpiece.

Supply: NPS 3/8 with shutoff valve.

Waste Fitting: ASME A112.18.2/CSA B125.2, NPS 1-1/4 brass P-trap.

Retain "Filter" Subparagraph below only if required.

Filter: One or more water filters with capacity sized for unit peak flow rate.

If cooling is not required, see Section 224713 "Drinking Fountains" for selection.

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.

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.

Capacities and Characteristics:

Cooled Water: 8 gph.

Ambient-Air Temperature: 90 deg F.

Inlet-Water Temperature: 80 deg F.

Cooled-Water Temperature: 50 deg F.

Cooled-Water Storage: <**Insert value**>.

Electrical Characteristics:

Motor Horsepower: [**1/6**] [**1/5**] [**1/4**] [**1/3**] <**Insert value**>.

Volts: 120 V ac.

Phase: Single.

Hertz: 60 Hz.

Full-Load Amperes: <**Insert value**> A.

Minimum Circuit Ampacity: <**Insert value**> A.

Maximum Overcurrent Protection: <**Insert value**> A.

Ventilation Grille: Stainless steel.

Coordinate "Support" Subparagraph below with "Supports" Article.

Support: Provide manufacturer's support frame attached to substrate.

Bottle Filling Station Mounting Height: **[Standard]** **[Accessible in accordance with ICC A117.1]**.

1. EXECUTION
   * + 1. EXAMINATION
          1. Examine roughing-in for water-supply and sanitary drainage and vent piping systems to verify actual locations of piping connections before fixture installation.
          2. Examine walls and floors for suitable conditions where fixtures will be installed.
          3. Proceed with installation only after unsatisfactory conditions have been corrected.
       2. INSTALLATION
          1. Install fixtures level and plumb according to roughing-in drawings. For fixtures indicated for children, install at height required by authorities having jurisdiction.
          2. Set freestanding, pressure water coolers on floor.
          3. Install off-the-floor carrier supports, affixed to building substrate, for wall-mounted fixtures.
          4. Install mounting frames, affixed to building construction, and attach recessed, pressure water coolers, and bottle filling stations to mounting frames.
          5. 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 "General-Duty Valves for Plumbing Piping."
          6. Install trap and waste piping on drain outlet of each fixture to be connected to sanitary drainage system.
          7. 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 220500 "Common Work Results for Plumbing."
          8. 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. PIPING CONNECTIONS

Coordinate piping installations and specialty arrangements with Drawings and with requirements specified in piping systems. If Drawings are explicit enough, these requirements may be reduced or omitted.

* + - * 1. Connect fixtures with water supplies, stops, and risers, and with traps, soil, waste, and vent piping. Use size fittings required to match fixtures.
        2. Comply with water piping requirements specified in Section 221116 "Domestic Water Piping."
        3. Install ball[ **or gate**] shutoff valve on water supply to each fixture.[ **Install valve upstream from filter for water cooler.**] Comply with valve requirements specified in Section 220523 "General-Duty Valves for Plumbing Piping."
        4. Comply with soil and waste piping requirements specified in Section 221316 "Sanitary Waste and Vent Piping."
      1. ELECTRICAL CONNECTIONS
         1. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
         2. Install electrical devices furnished by manufacturer, but not factory mounted, according to NFPA 70 and NECA 1.
         3. Install nameplate for each electrical connection, indicating electrical equipment designation and circuit number feeding connection.

Retain one of two subparagraphs below. First subparagraph cross-references Section 260553 "Identification for Electrical Systems" and should be retained for consistent electrical identification. Second subparagraph is an abbreviated version of the product specified in Section 260553 "Identification for Electrical Systems."

Nameplates to be laminated acrylic or melamine plastic signs, as specified in Section 260553 "Identification for Electrical Systems."

Nameplates to be laminated acrylic or melamine plastic signs with a black background and engraved white letters at least 1/2 inch high.

* + - 1. ADJUSTING
         1. Adjust fixture flow regulators for proper flow and stream height.
         2. Adjust pressure water-cooler temperature settings.
      2. CLEANING
         1. After installing fixture, inspect unit. Remove paint splatters and other spots, dirt, and debris. Repair damaged finish to match original finish.
         2. Clean fixtures, on completion of installation, according to manufacturer's written instructions.
         3. Provide protective covering for installed fixtures.
         4. Do not allow use of fixtures for temporary facilities unless approved in writing by Owner.

END OF SECTION 224716