

SECTION 210553 - IDENTIFICATION FOR FIRE SUPPRESSION PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 as set forth in these Specifications are hereby incorporated into and shall become a part of this Section.

1.2 SUMMARY

- A. This Section includes the following mechanical identification materials and their installation:
 - 1. Pipe markers.
 - 2. Valve tags.
 - 3. Valve schedules.
- B. Identify by labels and tags the following:
 - 1. Piping and valves exposed in equipment rooms and accessible service areas.
 - 2. Piping and valves running above accessible ceiling construction and near access panels in non-accessible construction areas.
- C. Provide color banding, flow arrows and contents identification for piping.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.
- A. Samples: For color, letter style and graphic representation required for each identification material and device as requested by the Engineer.
- B. Valve numbering scheme.
- C. Valve Schedules: For each piping system. Furnish three extra copies (in addition to mounted copies) to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. ASME Compliance: Comply with ASME A13.1, "Scheme for the Identification of Piping Systems," for letter size, length of color field, colors and viewing angles of identification devices for piping.

1.5 COORDINATION

- A. Coordination installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- B. Coordinate installation of identifying devices with location of access panels and doors.

- C. Install identifying devices before installing acoustical ceilings and similar concealment.
- D. All trades shall use the same type, style and appearance of identification.
- E. Coordinate with the Owner for data on tags and identification with a unique numbering system. The tags and identification shall have the number in both an alpha/numeric font and a bar code font (as applicable). The number and font shall be obtained from the Owner prior to ordering. The Owner's requirements shall supersede those of this Section.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements provide products by one (1) of the manufacturers specified.
 - 1. Brady Corp.
 - 2. Brimar Industries
 - 3. National Marker Co.
 - 4. Seton Nameplate Corp.
- B. None of the manufacturers listed for products under this Section shall be considered as Basis-of-Design.

2.2 PIPING IDENTIFICATION DEVICES

- A. Manufactured Pipe Markers, General: Preprinted, color-coded, with lettering indicating service and showing direction of flow.
 - 1. Colors: As indicated in specification schedule.
 - 2. Lettering: Use piping system terms indicated and abbreviate only as necessary for each application length.
 - 3. Pipes with OD, including insulation, less than 6-inches: Full wrap around pipe labels extending minimum 360-degrees around pipe at each location.
 - 4. Pipes with OD, including insulation, 6-inches and larger: Either full-band or full wrap around pipe label pipe markers at least three (3) times letter height and of length required for label.
 - 5. Directional arrows: A separate full wrap around pipe labels with flow direction on each pipe marker to indicate direction of flow
 - a. **OPTION:** Directional arrows may be integral part of pipe markers above.

2.3 VALVE TAGS

- A. Valve Tags: 2-inches diameter tag stamped or engraved with 1/4-inch letters for piping system abbreviation and 1/2-inch numbers, with numbering scheme, approved by Engineer. Provide 5/32-inch hole for fastener.
 - 1. Material: 16-gauge brass.

2. Valve-Tag Fasteners: Beaded brass chain.

2.4 VALVE SCHEDULES

- A. Valve Schedules: For each piping system, on standard-size, bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulation), and variations for identification. Mark valves for emergency shutoff and similar special uses.
 1. Valve-Schedule Frames: Glazed display frame for removable mounting on masonry walls for each page of valve schedule. Include mounting screws.
 2. Frame: Extruded aluminum.
 3. Glazing: ASTM C 1036, Type I, Class 1, Glazing Quality B, 2.5-mm, single-thickness glass.

PART 3 - EXECUTION

3.1 APPLICATIONS, GENERAL

- A. Products specified are for applications referenced in other Division 21 Sections. If more than single-type material, device or label is specified for listed applications, selection is Installer's option.
- B. Installing Contractor is responsible for valve tagging, equipment markers and pipe identification of all valves, equipment and piping on packaged pumping skids.

3.2 PIPING IDENTIFICATION

- A. Install manufactured pipe markers indicating service of each piping system. Install with flow indication arrows showing direction of flow.
- B. Install manufactured pipe markers on new and, if not previously provided, existing piping systems in the area of work.
- C. Locate pipe markers and color bands where piping is exposed in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior non-concealed locations as follows:
 1. Near each valve and control device.
 2. Near each side of penetrations through walls, floors, ceilings and non-accessible enclosures.
 3. At access doors and similar access points that permit view of concealed piping.
 4. Near major equipment items and other points of origination and termination.
 5. Spaced at maximum intervals of 50-feet along each run. Reduce intervals to 25-feet in areas of congested piping and equipment.
 6. On piping above removable acoustical ceilings.
- D. Pipe Identification

PIPE IDENTIFICATION SCHEDULE			
Type of Service	Band Color	Lettering Color	Designation
Wet-Pipe Sprinkler	Safety Red	White	Wet Sprinkler
Drain	Green	White	Drain

3.3 VALVE-TAG INSTALLATION

- A. Install tags on valves and control devices in piping systems, except check valves and valves within factory-fabricated equipment units. List tagged valves in a valve schedule.
- B. Valve-Tag Application Schedule: Tag valves with captions similar to those indicated in the following:

VALVE TAG SCHEDULE	
Type of Service	Designation
Wet-Pipe Sprinkler	SPR
Drain	DR

3.4 VALVE-SCHEDULE INSTALLATION

- A. Mount valve schedule on wall in accessible location where directed by the Owner. Provide aluminum frame with plexiglass cover for valve chart.

3.5 ADJUSTING

- A. Relocate mechanical identification materials and devices that have become visually blocked by other work. Labels, tags, etc. must be readable from a standing position.

3.6 CLEANING

- A. Clean faces of mechanical identification devices and glass and frames of valve schedules.

END OF SECTION 210553