
SECTION 22 05 53

IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Identifying Devices and Labels for Plumbing Piping and Equipment

1.2 REFERENCES

- A. [The American Society of Mechanical Engineers \(ASME\)](#) Publications:
 - 1. A13.1 "Scheme for the Identification of Piping Systems"
- B. [ASTM International \(ASTM\)](#) Publications: (Former American Society for Testing and Materials)
 - 1. C1036 "Standard Specification for Flat Glass"

1.3 SUBMITTALS

- A. General: Submit the following in accordance with Conditions of Contract and Division 01 Specification Sections.
 - 1. Valve tags.
 - 2. Pipe labels.

1.4 QUALITY ASSURANCE

- A. Comply with [ASME](#) A13.1, "Scheme for the Identification of Piping Systems" for lettering size, length of color field, colors, and viewing angles of identification devices.

1.5 SEQUENCING AND SCHEDULING

- A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- B. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 GENERAL

- A. General: Products specified are for applications referenced in other Division 22 Sections. If more than single type is specified for listed applications, selection is Installer's option.

- B. Pipes Including Insulation: Full-band pipe markers, extending 360 degrees around pipe at each location.

2.2 IDENTIFYING DEVICES AND LABELS

- A. Lettering and Graphics:
 - 1. Utilize manufacturer's standard preprinted captions as selected by Owner's Representative.
 - 2. Coordinate names, abbreviations, and other designations used in plumbing identification with corresponding designations indicated. Use numbers, letters, and terms indicated for proper identification, operation, and maintenance of plumbing systems and equipment.
 - a. Multiple Systems: Identify individual system number and service if multiple systems of same name are indicated.
 - 3. Use piping system terms indicated and abbreviate only as necessary for each application length.
 - a. Arrows: Either integrally with piping system service lettering, to accommodate both directions, or as separate unit, on each pipe marker to indicate direction of flow.
- B. Plastic Tape: Manufacturer's standard color-coded, pressure-sensitive, self-adhesive, vinyl tape, at least 3 mils thick.
 - 1. Width: 1-1/2 inches on pipes with OD, including insulation, less than 6 inches; 2-1/2 inches for larger pipes.
 - 2. Color: Comply with [ASME](#) A13.1, unless otherwise indicated.
- C. Valve Tags: Stamped or engraved with 1/4-inch letters for piping system abbreviation and 1/2-inch sequenced numbers. Include 5/32-inch hole for fastener.
 - 1. Material: 0.032-inch thick, polished brass.
 - 2. Size: 1-1/2-inches diameter, unless otherwise indicated.
- D. Valve Tag Fasteners: Brass, wire-link chain and S-hooks.
- E. Access Panel and Equipment Markers: 1/16-inch thick, engraved plastic-laminate markers, with abbreviated terms and numbers corresponding to concealed valve and equipment identification corresponding to schedules on Drawings. Provide 1/8-inch center hole for attachment.

PART 3 - EXECUTION

3.1 LABELING AND IDENTIFYING PIPING SYSTEMS

- A. Install pipe markers on each system as indicated below. Include arrows showing normal direction of flow.
 - 1. Domestic Cold Water.
 - 2. Domestic Hot Water.
 - 3. Domestic Hot Water Return.

4. Sanitary Drain.
 5. Storm Drain.
 6. Condensate.
 7. Vent.
- B. Marker Type: Plastic markers, with application systems. Install on pipe insulation segment where required for hot, noninsulated pipes.
- C. Fasten markers on pipes and insulated pipes by one of following methods:
1. Snap-on application of pretensioned, semirigid plastic pipe marker.
- D. Locate pipe markers where piping is exposed in machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior nonconcealed locations according to the following:
1. Near each valve and control device.
 2. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Mark each pipe at branch, where flow pattern is not obvious.
 3. Near penetrations through walls, floors, ceilings, or nonaccessible enclosures.
 4. At access doors, manholes, and similar access points that permit view of concealed piping.
 5. Near major equipment items and other points of origination and termination.
 6. Spaced at a maximum of 50-foot intervals along each run. Reduce intervals to 25 feet in areas of congested piping and equipment.
 7. On piping above removable acoustical ceilings, except omit intermediately spaced markers.

3.2 VALVE TAGS

- A. Install on valves and control devices in piping systems, except check valves, valves within factory-fabricated equipment units, plumbing fixture supply stops, shutoff valves, faucets, convenience and lawn-watering hose connections, and similar roughing-in connections of end-use fixtures and units. List tagged valves in valve schedule.
- B. Valve Tag Application Schedule: Tag valves according to size, shape, color scheme, and with captions similar to those indicated in the following:
1. Domestic Cold Water
 2. Domestic Hot Water
 3. Domestic Hot Water Return
 4. Gas
- C. Tag Material: Brass.
- D. Tag Size and Shape: According to the following:
1. Cold Water: 1-1/2 inches round.
 2. Hot Water: 1-1/2 inches round.
 3. Gas: 1-1/2 inches round.

- E. Valve schedule and tag locations shall be shown on record drawings.
- F. Valve Schedule: As-built plumbing plans shall be noted with valve tag information to allow valve tags and valves on plans to be correlated.

3.3 LABELING AND IDENTIFYING PLUMBING EQUIPMENT

- A. Label all plumbing equipment with designations as indicated in plumbing equipment schedules on Drawings.

3.4 ADJUSTING AND CLEANING

- A. Relocate plumbing identification materials and devices that have become visually blocked by work of this or other Divisions.

END OF SECTION