

SECTION 230553 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

PART 1 - GENERAL

1.01 BUY AMERICAN REQUIREMENTS

- A. Provide certificates to show that all products meet the following requirements.
 - 1. American Iron and Steel (AIS)
 - 2. Build America, Buy America Act
- B. See Supplementary Conditions for details.

1.02 SUMMARY

- A. Section Includes:
 - 1. Nameplates.
 - 2. Tags.
 - 3. Stencils.
 - 4. Pipe markers.
 - 5. Ceiling tacks.
 - 6. Labels.
 - 7. Lockout devices.

1.03 REFERENCES

- A. American Society of Mechanical Engineers:
 - 1. ASME A13.1 - Scheme for the Identification of Piping Systems.

1.04 SUBMITTALS

- A. Section 013300 "Submittal Procedures": Submittal procedures.
- B. Product Data: Submit manufacturers catalog literature for each product required.
- C. Shop Drawings: Submit list of wording, symbols, letter size, and color coding for mechanical identification and valve chart and schedule, including valve tag number, location, function, and valve manufacturer's name and model number.
- D. Manufacturer's Installation Instructions: Indicate installation instructions, special procedures, and installation.
- E. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

1.05 QUALITY ASSURANCE

- A. Conform to ASME A13.1 for color scheme for identification of piping systems and accessories.

1.06 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.
- B. Installer: Company specializing in performing Work of this section with minimum three years documented experience.

PART 2 - PRODUCTS

2.01 NAMEPLATES

- A. Manufacturers: Seton Identification Products or approved substitute.
- B. Product Description: Laminated three-layer plastic with engraved letters on light contrasting background color.
- C. Plate minimum size 3/4 inch x 2-1/2 inches.

2.02 TAGS

- A. Plastic Tags:
 - 1. Manufacturers: Seton Identification Products or equal.
 - 2. Laminated three-layer plastic with engraved letters on light contrasting background color. Tag size minimum 1-1/2 inches diameter.
- B. Metal Tags:
 - 1. Manufacturers: Seton Identification Products or equal.
 - 2. Brass with stamped letters; tag size minimum 1-1/2 inches diameter with finished edges.
- C. Information Tags:
 - 1. Manufacturers: Seton Identification Products or equal.
 - 2. Clear plastic with printed "Danger," "Caution," or "Warning" and message; size 3-1/4 x 5-5/8 inches with grommet and self-locking nylon ties.
- D. Tag Chart: Typewritten letter size list of applied tags and location in anodized aluminum frame.

2.03 STENCILS

- A. Manufacturers: Seton Identification Products or equal.
- B. Furnish materials in accordance with State of Alaska standards.
- C. Stencils: With clean cut symbols and letters of following size:
 - 1. Up to 2 inches Outside Diameter of Insulation or Pipe: 1/2-inch high letters.
 - 2. 2-1/2 to 6 inches Outside Diameter of Insulation or Pipe: 1-inch high letters.
 - 3. Over 6 inches Outside Diameter of Insulation or Pipe: 1-3/4 inches high letters.
 - 4. Ductwork and Equipment: 1-3/4 inches high letters.
- D. Stencil Paint: As specified in Section 099123 "Interior Painting", semi-gloss enamel, colors and lettering size conforming to ASME A13.1.

2.04 PIPE MARKERS

- A. Color and Lettering: Conform to ASME A13.1.
- B. Plastic Pipe Markers:
 - 1. Manufacturers: Seton Identification Products or equal.
 - 2. Factory-fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering. Larger sizes may have maximum sheet size with spring fastener.
- C. Plastic Tape Pipe Markers:
 - 1. Manufacturers: Seton Identification Products or equal.
 - 2. Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings. Flexible, vinyl film tape with pressure-sensitive adhesive backing and printed markings.

2.05 LABELS

- A. Manufacturers: Seton Identification Products or equal.
- B. Description: Aluminum, size 1.9 by 0.75 inches, adhesive backed with printed identification.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Degrease and clean surfaces to receive adhesive for identification materials.
- B. Prepare surfaces in accordance with Section 099123 "Interior Painting", for stencil painting.

3.02 INSTALLATION

- A. Apply stencil painting in accordance with Section 099123 "Interior Painting",.
- B. Install identifying devices after completion of coverings and painting.
- C. Install plastic nameplates with corrosive-resistant mechanical fasteners, or adhesive.
- D. Install labels with sufficient adhesive for permanent adhesion and seal with clear lacquer. For unfinished canvas covering, apply paint primer before applying labels.
- E. For pipe markers, provide complete wraps of adhesive direction arrow tape around both ends of marker.
- F. Install tags using corrosion resistant chain. Number tags consecutively by location.
- G. Install underground plastic pipe markers 6 to 8 inches below finished grade, directly above buried pipe.
- H. Identify air handling units, pumps, heat transfer equipment, tanks, and water treatment devices with plastic nameplates. Identify in-line pumps and other small devices with tags.
- I. Identify control panels and major control components outside panels with plastic nameplates.
- J. Identify valves in main and branch piping with tags showing service and valve number.
- K. Valve tags to indicate whether valve is normally open or normally closed (NO or NC). Number tags consecutively by location.
- L. Identify air terminal units and radiator valves with numbered tags.
- M. Tag automatic controls, instruments, and relays. Key to control schematic.
- N. Identify piping, concealed or exposed, with plastic pipe markers. Use tags on piping 3/4 inch in diameter and smaller. Identify service, flow direction, and pressure. Install in clear view and align with axis of piping. Locate identification not to exceed 20 feet (6 m) on straight runs including risers and drops, adjacent to each valve and tee, at each side of penetration of structure or enclosure, and at each obstruction.
- O. Identify ductwork with plastic nameplates. Identify with air handling unit identification number and area served. Locate identification at air handling unit, at each side of penetration of structure or enclosure, and at each obstruction.
- P. Provide ceiling tacks to locate valves, dampers equipment, and other maintained devices above T-bar type panel ceilings.
 - 1. Locate tack on panel, closest to the device.
 - 2. For equipment requiring maintenance, such as VAV boxes, locate ceiling tack at access location.
 - 3. Write on the tack with permanent marker an identifier such as the valve or equipment tag.

3.03 SCHEDULES

IDENTIFICATION

Common abbreviations are shown; submit proposed abbreviations for other systems as needed.

FOS Fuel Oil Supply

FOR Fuel Oil Return

EXH Engine Exhaust

END OF SECTION

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