



SECTION 22 05 53 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Nameplates.
 - 2. Tags.
 - 3. Stencils.
 - 4. Pipe markers.
 - 5. Ceiling tacks.
 - 6. Labels.
 - 7. Lockout devices.
 - 8. Warning Signs and Labels.
 - 9. Warning Tag.

1.2 REFERENCES

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

1.3 SUBMITTALS

- A. Product Data: Submit manufacturers catalog literature for each product required.
- B. 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.

PART 2 - PRODUCTS

2.1 NAMEPLATES

- A. Manufacturers:
 - 1. **Craftmark Pipe Markers**
 - 2. **Safety Sign Company.**
 - 3. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - 4. **Kolbi Pipe Marker Company.**
- B. Product Description: Laminated three-layer plastic with engraved white letters on blue contrasting background color.
 - 1. Plastic Labels for Equipment:



Guide Specification
Los Angeles World Airports

- a. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch thick, and having predrilled holes for attachment hardware.
- b. Letter Color: White.
- c. Background Color: Blue.
- d. Maximum Temperature: Able to withstand temperatures up to 180 deg F.
- e. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
- f. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
- g. Fasteners: Stainless-steel rivets or self-tapping screws.
- h. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

C. Metal Labels for Equipment:

1. Material and Thickness: Stainless steel, 0.025-inch minimum thickness, and having predrilled or stamped holes for attachment hardware.
2. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
3. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
4. Fasteners: Stainless-steel rivets or self-tapping screws.
5. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.

2.2 TAGS

A. Plastic Tags:

1. Manufacturers:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc.**
 - c. **Kolbi Pipe Marker Company.**
2. Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum: 2 inches square.

B. Metal Tags:

1. Manufacturers:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc.**



- c. **Kolbi Pipe Marker Company.**
2. Stainless steel, 0.025" min. thickness and having predrilled holes or stamped roles for attachment hardware, with stamped or engraved letters. Tag size minimum: 2 inches square, with finished edges.

2.3 STENCILS

- A. Manufacturers:
 1. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 2. **Brady Worldwide Inc..**
 3. **Kolbi Pipe Marker Company.**
- B. Stencils: With clean cut symbols and letters of following size:
 1. Up to 2 inches Outside Diameter of Insulation or Pipe: 3/4 inch high letters.
 2. 2-1/2 to 6 inches Outside Diameter of Insulation or Pipe: 1 1/4 inch high letters.
 3. Over 6 inches Outside Diameter of Insulation or Pipe: 2 1/2 inch high letters.
 4. 10 inch and above of insulation or pipe: 3 1/2 inches high letters.
 5. Equipment: 1-3/4 inch high letters.
- C. Stencil Paint: Semi-gloss enamel, colors and lettering size conforming to ASME A13.1.

2.4 PIPE MARKERS

- A. Color and Lettering: Conform to ASME A13.1.
- B. Plastic Pipe Markers:
 1. Manufacturers:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc..**
 - c. **Kolbi Pipe Marker Company.**
 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:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc..**
 - c. **Kolbi Pipe Marker Company.**
 2. Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.



- D. Plastic Underground Pipe Markers:
 - 1. Manufacturers:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc..**
 - c. **Kolbi Pipe Marker Company.**
 - 2. Bright colored continuously printed plastic ribbon tape, minimum 6 inches wide by 4 mil thick, manufactured for direct burial service.

2.5 CEILING TACKS

- A. Manufacturers:
 - 1. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - 2. **Brady Worldwide Inc..**
 - 3. **Kolbi Pipe Marker Company.**
- B. Description: Steel with 3/4 inch diameter color-coded head.
- C. Color code as follows:
 - 1. Plumbing valves: Green.

2.6 LABELS

- A. Manufacturers:
 - 1. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - 2. **Brady Worldwide Inc..**
 - 3. **Kolbi Pipe Marker Company.**
- B. Description: Stainless steel, size 2 1/2 x 3/4 inches, adhesive backed with printed identification and bar code.

2.7 LOCKOUT DEVICES

- A. Lockout Hasps:
 - 1. Manufacturers:
 - a. **Seton Identification Products / Tricor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc..**
 - c. **Kolbi Pipe Marker Company.**
 - 2. Anodized aluminum hasp with erasable label surface; size minimum 7-1/4 x 3 inches.
- B. Valve Lockout Devices:
 - 1. Manufacturers:



- a. **Seton Identification Products / Tricolor Direct / Brady Corporation.**
 - b. **Brady Worldwide Inc..**
 - c. **Kolbi Pipe Marker Company.**
2. Steel device preventing access to valve operator, accepting lock shackle.

2.8 WARNING SIGNS & LABELS

- A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/8 inch thick, and having predrilled holes for attachment hardware.
- B. Letter Color: White.
- C. Background Color: Red.
- D. Maximum Temperature: Able to withstand temperatures up to 180 deg F.
- E. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
- F. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
- G. Fasteners: Stainless-steel rivets or self-tapping screws.
- H. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- I. Label Content: Include caution and warning information, plus emergency notification instructions.

2.9 WARNING TAG

- A. Warning Tags: Preprinted or partially preprinted, accident-prevention tags, of plasticized card stock with matte finish suitable for writing.
 1. Size: Approximately 4 by 7 inches.
 2. Fasteners: Brass grommet and wire.
 3. Nomenclature: Large-size primary caption such as "DANGER," "CAUTION," or "DO NOT OPERATE."
 4. Color: Yellow background with black lettering.



PART 3 - EXECUTION

3.1 INSTALLATION

- A. Apply stencil 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. Install tags using corrosion resistant chain. Number tags consecutively by location.
- F. Install underground plastic pipe markers 6 to 8 inches below finished grade, directly above buried pipe.
- G. Identify water heaters, pumps, tanks, and water treatment devices with stencil painting. Identify in-line pumps and other small devices with tags.
- H. Identify control panels and major control components outside panels with plastic nameplates.
- I. Identify valves in main and branch piping with tags.
- J. Identify piping, concealed or exposed, with plastic tape pipe markers. Use tags on piping 3/4 inch 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 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.
- K. Provide ceiling tacks to locate valves above T-bar type panel ceilings. Locate in corner of panel closest to equipment.

3.2 PIPE LABEL INSTALLATION

- A. Stenciled Pipe Label Option: Stenciled labels may be provided instead of manufactured pipe labels, at Installer's option. Install stenciled pipe labels with painted, color-coded bands or rectangles, complying with ASME A13.1, on each piping system.
 - 1. Identification Paint: Use for contrasting background.
 - 2. Stencil Paint: Use for pipe marking.
- B. Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
 - 1. Near each valve and control device.
 - 2. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at branch.



3. Near penetrations through walls, floors, ceilings, and inaccessible enclosures.
 4. At access doors, maintenance holes, 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 maximum intervals of 10 feet along each run.
 7. On piping above removable acoustical ceilings. Omit intermediately spaced labels.
 8. Where removable ceiling tiles are provided, install buttons, tabs, or markers to identify location of concealed work and/or valves.
- C. Pipe Label Color Schedule:
1. Domestic Water Piping:
 - a. Background Color: Blue.
 - b. Letter Color: White.
 2. Sanitary Waste and Storm Drainage Piping:
 - a. Background Color: Yellow.
 - b. Letter Color: Black.

3.3 VALVE-TAG INSTALLATION

- A. Install tags on valves and control devices in piping systems, except check valves; valves within factory-fabricated equipment units; shutoff valves; faucets; convenience and lawn-watering hose connections; and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule.
- B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in the following subparagraphs:
1. Valve-Tag Size and Shape:
 - a. Cold Water: 2 inches, round.
 - b. Hot Water: 2 inches, round.
 2. Valve-Tag Color:
 - a. Cold Water: Blue.
 - b. Hot Water: Red.
 3. Letter Color:
 - a. Cold Water: White.
 - b. Hot Water: White.

3.4 WARNING-TAG INSTALLATION

- A. Write required message on, and attach warning tags to, equipment and other items where required.

END OF SECTION 22 05 53