SECTION 23 05 53 - IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Nameplates.
B. Tags.
C. Adhesive-backed duct markers.
D. Stencils.
E. Pipe markers.
F. Ceiling tacks.

1.02 REFERENCE STANDARDS

A. Current Edition of the California Mechanical Code (CMC)

1.03 SUBMITTALS

A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
B. List: Submit list of wording, symbols, letter size, and color coding for mechanical identification.
C. Chart and Schedule: Submit valve chart and schedule, including valve tag number, location, function, and valve manufacturer's name and model number.
D. Product Data: Provide manufacturers catalog literature for each product required.
E. Manufacturer's Installation Instructions: Indicate special procedures, and installation.
F. Project Record Documents: Record actual locations of tagged valves.

1.04 University Guidelines and Requirements

A. Volume/Balancing Dampers:
   1. Plan Notations: Clearly identify on plans.
B. Property ID Labels for Equipment:
C. Submittals:
   1. List of Equipment for Property ID Labels:
2. Submit list of equipment for Property ID Labels, including location, function, equipment manufacturer’s name, and model and serial numbers for verification by Engineer.

3. After acceptance by Engineer: Submit hard and electronic copies for assignment of bar-coding identification numbers by Campus Facility Services.

4. Samples: Submit two Property ID Labels.

5. Closeout Submittals: Project Record Documents: Record actual locations of labeled items; include bar-code numbers, and provide as-built electronic copy of list of equipment with location, function, equipment manufacturer’s name, and model and serial numbers.

D. Pre-Installation Meetings:
1. Convene minimum two weeks prior to commencing work of this section.

E. Labels:
1. Description: Property ID Labels.
3. Size: 2 x 0.875 inches.
5. Message:
6. Printed identification:
7. First Line: “[University Name] MEP”
9. Bar code: Code numbers shall be provided by the University Facility Services via the Trustees Representative.

PART 2 PRODUCTS

2.01 IDENTIFICATION APPLICATIONS

A. Air Handling Units: Nameplates.
B. Air Terminal Units: Tags.
C. Automatic Controls: Tags. Key to control schematic.
D. Control Panels: Nameplates.
E. Ductwork: Nameplates.
G. Instrumentation: Tags.
H. Major Control Components: Nameplates.
I. Piping: Tags.
J. Pumps: Nameplates.
K. Relays: Tags.
L. Small-sized Equipment: Tags.
M. Tanks: Nameplates.
N. Thermostats: Nameplates.
O. Valves: Tags and ceiling tacks where located above lay-in ceiling.
P. Water Treatment Devices: Nameplates.

2.02 NAMEPLATES

A. Manufacturers:
C. Letter Height: 1/4 inch (6 mm).
D. Background Color: Black.

2.03 TAGS

A. Plastic Tags: Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum 1-1/2 inch (40 mm) diameter.
B. Metal Tags: Brass with stamped letters; tag size minimum 1-1/2 inch (40 mm) diameter with smooth edges.

2.04 ADHESIVE-BACKED DUCT MARKERS

2.05 STENCILS

A. Stencils: With clean cut symbols and letters of following size:
   1. 3/4 to 1-1/4 inch (20-30 mm) Outside Diameter of Insulation or Pipe: 8 inch (200 mm) long color field, 1/2 inch (15 mm) high letters.

2.06 PIPE MARKERS

B. Plastic Pipe Markers: Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering; minimum information indicating flow direction arrow and identification of fluid being conveyed.

C. Plastic Tape Pipe Markers: Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.

D. Underground Plastic Pipe Markers: Bright colored continuously printed plastic ribbon tape, minimum 6 inches (150 mm) wide by 4 mil (0.10 mm) thick, manufactured for direct burial service.

E. Color code as follows:
   1. Heating, Cooling, and Boiler Feedwater: Green with white letters.
   2. Toxic and Corrosive Fluids: Orange with black letters.
   3. Compressed Air: Blue with white letters.

2.07 CEILING TACKS

A. Description: Steel with 3/4-inch (20 mm) diameter color coded head.

PART 3 EXECUTION

3.01 INSTALLATION

A. Install nameplates with corrosive-resistant mechanical fasteners, or adhesive. Apply with sufficient adhesive to ensure permanent adhesion and seal with clear lacquer.

B. Install 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.