

**SECTION 23 05 53****IDENTIFICATION FOR HVAC EQUIPMENT AND PIPING****PART 1 - GENERAL****1.1 RELATED REQUIREMENTS**

- A. Comply with Division 1 - General Requirements and referenced documents.
- B. Comply with all other Division 23 Sections as applicable. Refer to other Divisions for coordination of work with other portions of the work.

**1.2 SYSTEM DESCRIPTION**

- A. Provide a complete system of Piping Identification as specified herein for each of the systems as described herein.
- B. Provide a complete system of equipment identification tags as described herein.

**1.3 QUALITY ASSURANCE**

- A. The installation of all mechanical system identification devices shall be performed under this Section of the Specifications using materials which are the product of reputable manufacturers. The application of the materials shall be in strict accordance with the published standards of the manufacturer of the materials, using any special materials as required by these specifications and by those published standards.
- B. Manufactured Piping Identification markers, equipment name plates and valve tags shall be a product of Seton Name Plate Corporation, EMED Company, Inc., or Craftmark Identification to meet all ANSI Standards pertaining thereto.

**1.4 SUBMITTALS**

- A. Product Data: Submit manufacturer's descriptive literature and installation instructions in accordance with Section 23 05 00.
- B. Shop Drawings:
  - 1. Submit a list of all piping systems to be identified, color of background to be used, legend or wording to be displayed for each system, and the intended location of all markers to be displayed.
  - 2. Submit a list of equipment to receive identification tags, cut sheets and proof copies of tags which indicate location of tag and wording to be engraved thereon.

## 1.5 PRODUCT HANDLING

- A. Cover and protect material in transit and at site. Material not properly protected and stored and which is damaged or defaced during construction shall and will be rejected.
- B. Storage and protection of materials shall be in accordance with Section 23 05 00.

## PART 2 - PRODUCTS

### 2.1 PIPING IDENTIFICATION SYSTEM

- A. Furnish piping identification markers for all insulated and uninsulated piping systems in sizes and colors in accordance with ANSI Standard A13.1. Markers shall be as manufactured by Seton Name Plate Corporation similar to their vinyl plastic "Setmark" pipe markers with flow arrows. For systems with overall outside diameters under 6" use the snap-around markers. For systems with overall diameters 6" and over use strap-around markers attached with nylon ties.
- B. Markers shall be provided as a minimum for the following systems:
  - 1. Drains (Green background), for all insulated drains not contained in one space or roof; i.e., an A/C condensate drain in a fan room shall not require identification, whereas, as drain extending to another space would.
  - 2. Refrigerant Suction (Yellow background).
  - 3. Refrigerant Liquid (Yellow background).
- C. Refer to Section 09 90 00 for color code paint requirements for all exposed mechanical equipment and piping.

### 2.2 EQUIPMENT IDENTIFICATION

- A. This Contractor shall provide identification plates similar and equal to Seton Name Plates, Style 15671(M4564).
- B. Name plates shall be a minimum of 1/16" thick flexible multi-layered acrylic and be 1" X 3" in size with beveled edges. The surface shall be a black satin with a white core for lettering. Other color combinations may be used for specific systems where warranted. Each plate shall be drilled with two mounting holes sized for 3/8" No. 3 round head nickel plated steel screws. Lettering shall be a minimum of 3/16" high and lettering shall be cut through the black surface to the white core and be "Gothic Normal". Only name plates equal to those specified will be considered. No punched plastic tape or engraved aluminum plates are acceptable. Stick-on only plates are not acceptable.
- C. Provide and install identification plates on the cover of all starters or disconnects or combination starter-disconnects, where not mounted directly on the equipment,

delivered by the mechanical system installer to the electrical systems installer and on each piece of Mechanical Equipment to include but not necessarily limited to:

1. Split DX A/C or Heat Pump Units.
  2. Make-Up Air Fans.
  3. Condensing Units.
  4. Roof Top A/C Units.
  5. Exhaust Fans.
- D. Name plates for air handling units and roof top units shall have complete words describing equipment type, use and service. As an example, air handlers shall be designated "AHU-H-X" to designate the equipment as an air handler, building being served, and mechanical room where located. Name plate shall also include CFM of unit, and areas of building being served. Use multiple or larger name plates as required to fulfill this requirement.

Example:

AHU-H-A2

11,000 CFM

Serves: Second and Third Floors Area A

RTU-H-B311

1,750 CFM

Serves: Science H-B311

## **2.3 EQUIPMENT LOCATION IDENTIFICATION**

- A. All equipment located above a ceiling shall be provided with an identification tag located directly below it. In areas with drop ceiling, tags shall be riveted to closest metal ceiling angle.
- B. Location tag shall be Phenolic type material that is abrasion, heat, stain, and chemical resistant. Constructed of multi-layered acrylic, 3-ply, 1/16" thick with a low glare satin finish. Tags shall have pre-drilled holes on each end to accept a standard rivet size.
- C. Color of tag shall be red background with white lettering.

## **PART 3 - EXECUTION**

### **3.1 PIPE MARKER INSTALLATION**

- A. Provide flow arrows at each marker location.
- B. Markers shall be spaced not more than 30 feet on center and at each change of direction but not more than 4 feet in each direction from each elbow and tee. Markers not required on piping runouts less than four feet (4') in length and 1-1/4" or smaller in size.
- C. Identification markers shall be installed on all new piping; indoors, outdoors and in the crawl space except for drain and waste lines 3/4" and smaller.
- D. Install markers on exposed piping systems only after jacketing systems and finish paint coats are complete. Refer to Sections 09 90 00 and 23 07 00.

### **3.2 IDENTIFICATION TAG INSTALLATION**

- A. Secure tags level and in a conspicuous location with adhesive on equipment starters or combination starter disconnects and on the equipment where starters are not immediately adjacent to the equipment served.
- B. Additionally, secure all tags with screw fasteners after secured with adhesive.
- C. Provide and install an additional identification plate mounted on the ceiling grid (lay-in Clg) or on access door (Hard Clgs.) for all above ceiling mounted equipment.

**END OF SECTION**