

**SECTION 238216
AIR COILS****PART 1 GENERAL****1.01 SUMMARY**

- A. This Section includes the following types of air coils that are not an integral part of air-handling units:
 - 1. Hot-water.
- B. Related Sections include the following:
 - 1. Division 23 Sections for air coils that are integral to air-handling units.

1.02 SUBMITTALS

- A. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each air coil. Include rated performance, capacities and pressure drop for each air coil.

1.03 QUALITY ASSURANCE

- A. ASHRAE Compliance:
 - 1. Comply with ASHRAE 33 for methods of testing cooling and heating coils.
 - 2. Comply with applicable requirements in ASHRAE 62.1-2004, Section 5 - "Systems and Equipment" and Section 7 - "Construction and Startup."

1.04 PROJECT CONDITIONS

- A. Altitude above Mean Sea Level: 850 ft.

PART 2 PRODUCTS**2.01 WATER COILS**

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Aerofin
 - 2. Heatcraft Refrigeration Products LLC; Heat Transfer Division
 - 3. McQuay International
 - 4. Precision Water Coils
 - 5. Trane
 - 6. USA Coil & Air
- B. Performance Ratings: Tested and rated according to ARI 410 and ASHRAE 33.
- C. Minimum Working-Pressure/Temperature Ratings: 200 psig, 325 deg F.
- D. Source Quality Control: Factory tested to 300 psig.
- E. Tubes: ASTM B 743 copper, minimum 0.035 inch thick.
- F. Fins: Aluminum, minimum 0.010 inch thick.
- G. Headers: Cast iron with cleaning plugs, and drain and air vent tappings.
- H. Frames: Galvanized-steel channel frame, minimum 0.052 inch thick for slip-in mounting.
- I. Capacities and Characteristics: As scheduled on the drawings.

PART 3 EXECUTION**3.01 EXAMINATION**

- A. Examine ducts, plenums, and casings to receive air coils for compliance with requirements for installation tolerances and other conditions affecting coil performance.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before coil installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 INSTALLATION

- A. Install coils level and plumb.
- B. Straighten bent fins on air coils.
- C. Clean coils using materials and methods recommended in writing by manufacturers, and clean inside of casings and enclosures to remove dust and debris.

3.03 CONNECTIONS

- A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to coils to allow service and maintenance.
- C. Connect water piping with unions and shutoff valves to allow coils to be disconnected without draining piping. Control valves are specified in Division 23 Section "Instrumentation and Control for HVAC," and other piping specialties are specified in Division 23 Section "Hydronic Piping."

END OF SECTION 238216