

SECTION 23 82 16

AIR COILS

PART 1 GENERAL

1.01 SUBMITTALS

- A. Product Data:
 - 1. Coil material and construction data.
 - 2. Certified dimensions..
- B. Quality Assurance Data: {the following are suggestions; include what is necessary}
 - 1. All coils shall be certified by the manufacturer to comply with all requirements of ARI Standard 410.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Aerofin
- B. Airtherm
- C. Carrier
- D. Dunham-Bush
- E. Heatcraft
- F. McQuay
- G. Pace
- H. Temtrol
- I. Trane
- J. Wing
- K. York

2.02 HYDRONIC COILS

- A. Description: Self-draining coil fabricated to ARI 410.
- B. Piping Connections: Threaded, on same end.
- C. Tubes: Copper, complying with ASTM B 75.
 - 1. Tube Diameter: 0.625 inch minimum.
 - 2. Minimum Tube Thickness: 0.020 inch,
- D. Fins: Aluminum with fin spacing as required.
- E. Fin and Tube Joint: Mechanical bond.
- F. Headers: Seamless copper tube with brazed joints, prime coated.
- G. Frames: Galvanized-steel channel frame, 0.052 inch.
- H. Ratings: Design tested and rated according to ASHRAE 33 and ARI 410.
 - 1. Working Pressure Ratings: 200 psig, 325 deg F.

2.03 STEAM COILS

- A. Description: Distribution header coil fabricated to ARI 410, with threaded steam supply and condensate connections.
 - 1. Connections: Steam supply on both ends; condensate on one end.

- B. Tubes: Copper, complying with ASTM B 75.
 - 1. Tube Diameter: 0.625 inch minimum
- C. Fins: Aluminum with fin spacing as required.
- D. Fin and Tube Joint: Mechanical bond.
- E. Headers: Seamless copper tube with brazed joints, prime coated
- F. Frames: Galvanized-steel channel frame, 0.052 inch.
- G. Ratings: Design tested and rated according to ASHRAE 33 and ARI 410.
 - 1. Working Pressure Ratings: 100 psig.

2.04 REFRIGERANT COILS

- A. Description: Coil designed for use with CFC free refrigerant or R-22 refrigerant, fabricated to ARI 410, connected with soldered or brazed fittings.
- B. Capacity Reduction: Circuit for interleaved control or hot gas by-pass as needed.
- C. Tubes: Copper, complying with ASTM B 75.
 - 1. Tube Diameter: 0.625 inch.
- D. Fins: Aluminum with fin spacing as required.
- E. Fin and Tube Joint: Mechanical bond.
- F. Suction and Distributor: Seamless copper tube with brazed joints.
- G. Frames: Galvanized-steel channel frame, 0.052 inch.
- H. Ratings: Design tested and rated according to ASHRAE 33 and ARI 410.
 - 1. Working Pressure Rating: 300 psig.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install coils level and plumb.
- B. Install coils in metal ducts and casings constructed according to SMACNA's "HVAC Duct Construction Standards, Metal and Flexible."
- C. Install stainless-steel drain pan under each chilled-water coil.
 - 1. Construct drain pans to comply with ASHRAE 62.
 - 2. Construct drain pans to extend beyond coil length and width and to connect to condensate trap and drainage.
 - 3. Extend drain pan 5 inches upstream from coil face.

3.02 CONNECTIONS

- A. Coordinate piping installations and specialty arrangements with schematics on Drawings and with requirements specified in hydronic, steam and condensate, and refrigerant piping systems.
- B. Piping installation requirements are specified in other Division 25 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- C. Install piping adjacent to coils to allow service and maintenance.
- D. Unless otherwise indicated, connect piping with unions and shutoff valves to allow coils to be disconnected without draining piping. Refer to piping system Sections for specific valve and specialty arrangements.

END OF SECTION 23 82 16