SECTION 238216 - REFRIGERANT AIR COILS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

B. Alternate #6: Refer to Section 012300 – “Alternates”.

1.2 SUMMARY

A. Section includes refrigerant air coil – retrofit into existing air handler.

1. Existing air handler: Trane CCDB21B, serial # K87M38990.

B. Related Requirements:

1. 232300 - REFRIGERANT PIPING
2. 236200 - PACKAGED COMPRESSOR AND CONDENSER UNITS

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for each air coil.
2. Include rated capacities, operating characteristics, and pressure drops for each air coil.

1.4 INFORMATIONAL SUBMITTALS

A. Sketch of existing air handler showing dimensions and mounting conditions.

1.5 CLOSEOUT SUBMITTALS

A. Operation and Maintenance Data: For air coils to include in operation and maintenance manuals.

PART 2 - PRODUCTS

2.1 DESCRIPTION

A. ASHRAE Compliance: Comply with applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and Startup."

2.2 REFRIGERANT AIR COILS

A. Manufacturers: Subject to compliance with requirements, provide products by the following:

1. Daikin
2. Carrier Corporation; a UTC company.
3. Coil Company, LLC.
4. Colmac Coil Manufacturing, Inc.
5. Dunham-Bush, Inc.
6. Heatcraft Refrigeration Products LLC.
7. Lennox Industries Inc.
8. Super Radiator Coils.
9. Trane.
10. USA Coil & Air.

B. Performance Ratings: Tested and rated according to AHRI 410 and ASHRAE 33.

C. Minimum Working-Pressure Rating: 300 psig.

D. Source Quality Control: Factory tested to 450 psig.

E. Tubes: ASTM B 743 copper.

F. Fins: Aluminum, minimum 0.006 inch thick.

G. Suction and Distributor Piping: ASTM B 88, Type L copper tube with brazed joints.

H. Frames: Galvanized-steel channel frame, for slip-in or flanged mounting.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine air handler 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.

3.2 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. Check existing drain pan for proper drainage. Assume that repairs, patches, and adjustments will be needed.

1. Construct drain pans with connection for drain; insulated and complying with ASHRAE 62.1.
2. Drain pans needs to extend beyond coil length and width and to connect to condensate trap and drainage.
3. Check draw-through cooling coil trap for proper drainage. Repair as needed.
4. Straighten bent fins on air coils.

D. Clean coils using materials and methods recommended in writing by manufacturers, and clean inside of casings and enclosures to remove dust and debris.

3.3 CONNECTIONS

A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping, fittings, and specialties.

B. Install piping adjacent to coils to allow service and maintenance.

C. Connect refrigerant piping according to Section 232300 "Refrigerant Piping."

END OF SECTION 238216.13