

SECTION 15760

FAN COIL UNITS

PART 1 –GENERAL

1.1 WORK INCLUDED

- A. Fan coil units.

1.2 REFERENCES

- A. AMCA 99 - Standards Handbook.
- B. AMCA 210 - Laboratory Methods for Testing Fans for Rating Purposes.
- C. AMCA 230 - Field Performance Measurement of Fan Systems
- D. AMCA 300 - Reverberant Room Method of Sound Testing of Fans.
- E. AMCA 500 - Test Methods for Louvers, Dampers and Shutters.
- F. ARI 410 - Standard for Forced-Circulation Air-cooling and Air Heating Coils.
- G. ANSI/AFBMA 9 - Load Ratings and Fatigue Life for Ball Bearings.
- H. ANSI/AFBMA 11 - Load Ratings and Fatigue Life for Roller Bearings.
- I. NFPA 90A - Installation of Air Conditioning and Ventilation Systems.
- J. SMACNA - Low Pressure Duct Construction Standards.
- K. ASTM A525: Specification for General Requirements for Steel Sheet, Zinc Coated (Galvanized) by the Hot-Dip Process.

1.3 QUALITY ASSURANCE

- A. Fan Performance Ratings: Conform to AMCA 210 and bear the AMCA Certified Rating Seal.
- B. Store and protect conduits.
- C. Store in clean dry place and protector from weather and construction traffic. Handle carefully to avoid damage to components, enclosures and finish.

1.4 SUBMITTALS

- A. Clearly define any exceptions to specifications and drawings
- B. Shop drawings shall indicate assembly, unit dimensions, weight loading, required clearances, construction details, and field connection details.
- C. Product data shall indicate dimensions, weights, capacities, ratings, fan performance, motor electrical characteristics, and gages and finishes of materials.
- D. Provide fan curves with specified operating point clearly plotted.
- E. Submit sound power levels for both fan outlet and casing radiation at rated capacity. Submit ACMA 300-85 test report for each fan and unit.
- F. Submit product data of filter media, filter performance data, filter assembly, and filter frames.
- G. Submit electrical requirements for power supply wiring including wiring diagrams for interlock and control wiring, clearly indicating factory-installed and field-installed wiring.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Deliver products to site in factory-fabricated protective containers, with factory-installed shipping skids and lifting lugs.
- B. Store and protect conduits.
- C. Store in clean dry place and protect from weather and construction traffic. Handle carefully to avoid damage to components, enclosures, and finish.

1.6 ENVIRONMENTAL REQUIREMENTS

- A. Do not operate units for any purpose, temporary or permanent, until ductwork is clean, filters are in place, bearings lubricated, and fan has been test-run under observation.

PART 2 –PRODUCTS

2.1 MANUFACTURERS - FAN COILS

- A. International
- B. McQuay
- C. Trane

2.2 GENERAL

- A. Blow-through direct drive hideaway for ducted application or exposed finished cabinet as required.
- B. Fan, coil and filter sections.

2.3 CABINET

- A. Continuous galvanized steel base casing and inlet plenum, 1 inch filter frame for back return air. Baked enamel finish.

2.4 FANS AND MOTORS

- A. DWDI, forward curved, centrifugal.
- B. Statistically and dynamically balanced.
- C. Permanent split capacitor type with resilient mount, sleeve bearing with oilers, inherent thermal overload protection with automatic reset.
- D. Three-speed motor control switch mounted on fan coil.

2.5 COILS

- A. Extended surface plate aluminum fins, staggered 1/2-inch O.D. seamless copper tubes, 0.020 wall thickness.

2.6 DRAIN PAN

- A. Continuous galvanized steel, closed cell insulation, mastic seal, pitch to drain connection.
- B. Secondary drain pan with overflow pipe.

2.7 FILTERS

- A. 1 inch throw-away.

PART 3 –EXECUTION

3.1 INSTALLATION

- A. Install in accordance with manufacturer's instructions.
- B. Anchor to structure with seismic restraints and provide seismic calculations in accordance with Vibration and Seismic Controls Section.

END OF SECTION