**FCVE**

Furnish and install Price FCVE Fan Coil Units where indicated on the plans and in the specifications. Units shall be completely factory assembled, tested and shipped as one-piece. All units shall be capable of meeting or exceeding the scheduled capacities for cooling, heating and air delivery. All unit dimensions for each model and size shall be considered maximums. Units shall be ETL listed in compliance with UL/ANSI Standard 1995, and performance certified with the latest edition of AHRI Standard 440.

**Construction:**

All unit casing shall be fabricated of 18 gauge painted steel panels. Internal components shall be fabricated of 20 gauge galvanized steel. All exterior panels shall be insulated with 1/2 in. thick insulation with a maximum K-value of .24 (Btu • in)/(h • ft² • °F) and rated for a maximum air velocity of 3600 fpm. Insulation shall conform to UL 181 for erosion and NFPA 90A for flame spread (25) and smoke developed (50) rating per ASTM E-84 and UL 723.

All units shall be supplied with a stamped louver supply grille.

Option: Provide Foil Board insulation in lieu of standard. Insulation shall conform to UL 181 for erosion and NFPA 90A for fire, smoke and melting, and comply with a 25/50 Flame Spread and Smoke Developed Index per ASTM E-84 or UL 723. Additionally, insulation shall comply with Antimicrobial Performance Rating of 0, no observed growth, per UL 181.

Option: Provide Polymeric Closed Cell Foam Insulation in lieu of standard. Insulation shall conform to UL 181 for erosion and NFPA 90A for fire, smoke and melting, and comply with a 25/50 Flame Spread and Smoke Developed Index per ASTM E-84 or UL 723. Additionally, insulation shall comply with Antimicrobial Performance Rating of 0, no observed growth, per UL 181. Polyethylene insulation is not acceptable.

Unit mounting shall be by wall brackets with 3/8" slots or floor mounted.

Option: Units are equipped with leveling legs to provide 1" of adjustment in cases where units are installed on uneven flooring.

Option: Extended end pockets provide a 6" extension (total of 14") to the piping side of the cabinet to provide additional room for valves or to cover up an existing opening in retrofits.

**Paint:**

All FCVE units shall be provided with a powder coated epoxy finish.

**Sound:**

Units shall have published sound power level data tested in accordance with AHRI Standard 350-2000 (non-ducted equipment).

**Fan Motor Assembly:**

Fan blower shall be a dynamically balanced, forward curved, DWDI centrifugal type constructed of zinc coated galvanized steel for corrosion resistance. Motors shall be direct coupled to the blower with isolation provided between motor and blower assembly. All motors shall be UL and CSA listed with automatic reset thermal overload protection. Motors shall be 3-speed, single phase, 60 Hz permanent split capacitor (PSC) type for 115 V (208 V, 230 V, or 277 V), permanently lubricated, with sleeve bearings.

Option: Supply an electronically commutated motor (ECM) complete with a single phase integrated controller/inverter that operates the wound stator and senses motor position to electronically commutate the stator. Motor rotor shall be permanent magnet type with near zero rotor losses. Motor shall be permanently lubricated with ball bearings. Motor shall maintain a minimum of 70% efficiency over its entire operating range. Provide manual fan speed control for field adjustment of fan air flow set-point. Speed control shall accept as standard a (0-10VDC) (0-20mA) signal for remote fan adjustment from a BAS.

Option: Motors shall have quick connectors to allow service and removal without the need for tools.

**Coils:**

All cooling and heating coils shall optimize rows and fins per inch to meet the specified capacity. Coils shall have seamless copper tubes and shall be mechanically expanded to provide an efficient, permanent bond between the tube and fin. Fins shall have high efficiency aluminum surface optimized for heat transfer, air pressure drop and carryover.

All coils shall be hydrostatically tested at 360 psi minimum air pressure, and rated for a maximum of 300 psi working pressure at 200 °F.

Cooling and heating coils shall be in separate coil casings for servicing if required.

**Drain Pans:**

All units shall be supplied with a primary and auxiliary condensate drain pans. Both drain pans shall be single wall, galvanized steel for corrosion resistance. The primary drain pan shall extend under the entire cooling coil and drain into the auxiliary pan. Drain pans shall be of one-piece construction and be positively sloped for condensate removal.

Drain pans shall be externally insulated with a fire retardant foam insulation. The insulation shall carry no more than a 25/50 Flame Spread and Smoke Developed Rating per ASTM E-84 and UL 723 and an Antimicrobial Performance Rating of 0, no observed growth, per UL 181.

Option: Provide primary and auxiliary drain pans constructed entirely of heavy gauge type 304 stainless steel for superior corrosion resistance. Stainless steel drain pans shall be externally insulated and meet or exceed the requirements stated above.

Option: Provide a secondary drain connection on the auxiliary drain pan for condensate overflow.

**Filters:**

All units shall be furnished with a minimum 1 in. nominal glass fiber MERV 3 throwaway filter.

**Electrical:**

Units shall be furnished with single point power connection. Provide an electrical junction box with terminal strip for motor and other electrical terminations.