1. General
   1. Submittals
      1. Submit shop drawings/product data sheets for all products specified in this Section. Include motor data sheets and all required information to confirm that fan coil units proposed meet all requirements of the Contract Documents.
      2. Submit a site inspection and start-up report from the manufacturer’s representative as specified in Part 3 of this Section.
   2. Quality Assurance
      1. Fan coil units are to be ETL listed and labelled, factory assembled and tested, shipped to the site in one-piece, and are to be in accordance with requirements of the following Codes and Regulations:
         1. CAN/CSA-C22.2 No. 236, Heating and Cooling Equipment;
         2. UL/ANSI 1995, Heating and Cooling Equipment;
         3. ANSI/AHRI Standard 350, Sound Performance Rating of Non-Ducted Indoor Air-Conditioning Equipment;
         4. ANSI/AHRI Standard 440, Performance Rating of Room Fan-Coils;
         5. applicable Provincial Codes and Regulations.
2. Products
   1. Horizontal Fan Coil Units
      1. AHRI rated and certified capacity fan coil units as per the drawing schedule and complete with components specified below, as supplied by MDL Solutions [www.mdlsoln.com](http://www.mdlsoln.com) 289 799-3414 Chris@mdlsoln.com.
      2. Cabinet is to be heavy-gauge galvanized steel construction with all exterior panels insulated with minimum 15 mm (½") thick neoprene spray coated glass fibre lining material secured in place with adhesive and with all exposed edges treated and sealed to prevent any fibres from entering the airstream, all meeting NFPA 90A requirements and flame spread and smoke developed fire hazard ratings of CAN/ULC-S102. Each cabinet is to be complete with:
         1. an accessible galvanized steel filter holding frame and glass fibre, 25 mm (1") thick, disposable, UL Class 1, 25-30% efficient MERV 8 filters in accordance with requirements of UL 900, Air Filter Units, and complete with a cardboard frame;
         2. factory tested coils consisting of 12 mm (½") O.D. seamless copper tubes mechanically expanded into plate type aluminium fins and equipped with copper pipe headers, a manual air vent, and a drain plug;
         3. full width, watertight stainless steel OR non Crossive Thermally insulated material primary drain pans sloped for positive drainage and equipped with two 20 mm (¾") O.D. drain connections, and factory insulated with 25/50 rated closed cell insulation conforming to CAN/ULC-S102 and NFPA 90A requirements, with secondary drain pans, constructed and insulated as for primary drain pans, to be provided where required to collect condensate from pipe headers and field supplied valves.
      3. Centrifugal, forward curved, double width and inlet galvanized steel fan wheel, each dynamically balanced, complete with a 3-speed, resiliently mounted, thermal overload protected, Electrically Commutated Motor conforming to requirements, and complete with a 3-speed plus "off" motor control switch with faceplate factory mounted in an electrical box which is secured to the unit in an accessible location and factory connected to the motor. Fan assemblies are to be accessible and easily removable.
      4. Comes with 24V signal for modulating valves.
      5. Optionally – Comes with Electric heat.
      6. Horizontal units are to be suspended, equipped with four top casing holes for hanger rod connections, and the following:
         1. rubber-in-shear vibration isolation elements factory supplied with each unit for each suspension point;
         2. a double deflection discharge grille or flanged discharge duct connection collar as indicated, and either a bottom or rear single deflection return air grille as shown;
         3. removable bottom and side panels, and bottom access to the filter holding frame;
3. Execution
   1. Installation of Fan Coil Units
      1. Provide fan coil units.
      2. Secure each horizontal fan coil unit in place from the structure by means of galvanized steel hanger rods, and vibration isolation elements supplied with the fan coil units. Provide additional structural steel for fan coil unit support installation as required.
      3. Refer to Section entitled Mechanical Work General Instructions for general training requirements. Include for a one half day on-site operation demonstration and training session. Training is to be a full review of all components including but not limited to a full operation and maintenance demonstration, with abnormal events.

END OF SECTION