

Element D Services

Heating, Ventilating, and Air
Conditioning

D306013 HVAC - Fan Coil

PART 1 - GENERAL

1.1 OVERVIEW

- A. This section includes control requirements for fan coil units.

PART 2 - DESIGN CRITERIA

2.1 GENERAL

- A. All units will consist of a chilled water cooling coil, hot water heating coil (if applicable) and a filter section. Control units as follows:
1. All units will be controlled by the building automation system (BAS) based on a time of day (TOD) schedule. The unit fan will run continuously when the unit is energized. The chilled water coil control valve will be fully closed when the unit is off.
 2. For units serving occupied spaces - The respective space temperature sensor will, through the equipment controller, control the fan VFD or ECM motor as required to maintain the space temperature set point (75 degrees F – adjustable). A temperature sensor mounted in the fan coil unit discharge ductwork will, through the equipment controller, control the two-way cooling and heating coil control valve as required to maintain a constant leaving air temperature set point (55 degrees F in cooling and heating setpoint as required - adjustable [and resettable, where applicable]). Fan coil units that utilize a constant airflow rate / variable air temperature control scheme may be utilized in select applications. Coordinate with the Owner as needed to determine fan coil unit control scheme.
 3. For units serving unoccupied spaces – The respective space temperature sensor will, through the equipment controller, modulate the heating and cooling control valve in sequence to maintain temperature setpoint without simultaneous heating and cooling.
 4. Fans greater than 2,000 CFM capacity will include a smoke detector in the supply air ductwork, which will be hard-wired into the motor control circuit to shut down the fan; an auxiliary contact will notify the fire alarm system and send an alarm to the operator's workstation.
 5. A float switch in the auxiliary drain pan will deenergize the unit and send an alarm to the operator's workstation when the contact is closed.
 6. All fan coil units in healthcare type spaces shall have a float switch in the auxiliary drain pan and the auxiliary drain pan drain shall not be piped.
 7. When possible provide direct drive fan coil units with ECM motors. Only provide belt driven fan coil units when fan coil unit size exceeds ECM motor sizes.

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PART 3 - SPECIAL CONTRACT DOCUMENT REQUIREMENTS

3.1 GENERAL

- A. Specify that all shop drawings must be submitted in AutoCAD format.

PART 4 - PRODUCTS

4.1 GENERAL

- A. Refer to Owner's Master Construction Specifications. These are available on the Owner's Design Guidelines website:
<http://www2.mdanderson.org/depts/cpm/standards/specs.html>

PART 5 - DOCUMENT REVISION HISTORY

Issue	Date	Revision Description	Reviser
	20190301	Original Issuance	
Rev. 1			

END OF ELEMENT D306013