

Guide Specification for TEMSPEC Vertical Hi-Rise Fan Coil Unit Models TFA, TFE and TFS

1. The basis of design shall be fan coil units as manufactured by **Temspec Inc.**
2. The cabinet shall be fabricated from 18ga steel, finished in a textured powder coat (color as per Architect), lined with ½" glass fiber insulation bonded with a thermosetting resin and coated on the airstream side with an acrylic facing.
3. The coil shall have corrugated aluminum fins mechanically bonded to ½" copper tube. The coil shall be factory pressure tested at not less than 350 p.s.i.g. A manual air vent shall be incorporated at the high point on the connecting pipework to the coil.
4. The drain pan shall be 18ga galvanized steel positively sloped in two directions towards the drain outlet. The drain pan shall be insulated on the under surface. The drain hose from the outlet to the condensate riser shall form a running trap.
5. The piping package shall include:
Ball type shut off valves at the coil supply and return.
A two way NC control valve with an actuator having a close off pressure rating of not less than 50 p.s.i.g.
6. Model TFE units shall have a single stage electric heater with an open wire nickel-chrome element, carried in floating ceramic bushings. An auto-reset high limit device shall be incorporated in the frame.
7. The supply air fan shall be a centrifugal type, direct driven with forward curved impeller.
8. The fan motor shall be a three speed P.S.C. type with internal thermal overload protection and sealed bearings.
9. An unfused service disconnect switch shall be included, mounted inside the unit. The switch shall be rated in accordance with the electrical load.
10. The access panel shall have a microswitch to stop the fan when the access panel is removed.
11. The fan coil manufacturer shall provide a 24V thermostat, shipped loose for remote mounting. The thermostat shall have a digital display, three speed fan switch, fan auto/on switch and shall be an auto heat/cool changeover type.
12. The return air/access panel shall have a fixed blade return air grille. The panel shall attach to the fan coil unit by quick release screws. The return air/access panel shall be fabricated from steel, finished to match the unit.
13. A 1" disposable filter shall be included with the return air grille.
14. The unit manufacturer shall provide the supply air grilles which are unit mounted. The grilles shall be steel, have double deflection airfoil blades and shall be finished to match the unit. Supply air grilles which are part of a supply air ductwork system shall be provided by the sheet metal contractor.
15. A line-of-sight baffle with acoustical wrap shall be included in units which have left and right or front and back supply air openings.
16. Supply and return risers shall be type "M" copper insulated with ½" wall thickness closed cell material. This condensate riser shall be type "M" copper, uninsulated. The risers shall have a 3" long swaged expansion at the top end to allow a 2" insertion of the riser from above, without the use of couplings. The riser insulation shall have a flame spread rating of 25 or less and a smoke-developed rating of 50 or less, in compliance with ASTM E 84. The insulation shall be continuous over the riser length within the height of the cabinet. Provision of insulation beyond the ends of the cabinet and furnishing riser anchors shall be by the installing contractor. Hot water risers which are continuous over twelve or more floors shall incorporate expansion compensation loops within the fan coil cabinet.