Typical specification
for unit ventilator models VHP 36 / 48 / 60

1. The unit ventilator shall be model VHP 36 / 48 / 60 manufactured by Temspec Inc.

2. CABINET

The unit cabinet shall be 14ga corrosion resistant steel, braced and reinforced for rigidity. The finish shall be textured powder coat, color as per the Architect's instruction. The cabinet shall be fully lined with 1" coated glass fiber insulation. The return air grille shall be heavy duty steel. The unit shall have a draw through configuration. Access to the front face of the condenser coil shall be through the front of the unit for easy cleaning.

3. ELECTRIC COIL

The electric heating coil shall have wire nickel-chrome elements carried in floating ceramic bushings. Auto-reset high limit switches shall be factory installed in the coil frame. Each coil stage shall have an electromagnetic contactor to energize the coil.

4. INDOOR AND OUTDOOR COILS

The coil shall have 3/8" copper tube and aluminum fins. The coil capacities shall be as shown in the schedule. A galvanized steel pitched drain pan shall be provided.

5. COMPRESSOR

High Efficiency - Unit shall be provided with a two stage scroll compressor equipped with a low ambient cut out, refrigerant high and low-pressure switches -manual reset high pressure and low-pressure cut-out, sight glass for system observation, and Comfort Alert Diagnostics module for compressor protection. The system shall be factory charged with R410A refrigerant.

6. HEAT PUMP CIRCUIT

Unit shall have two properly sized thermal expansion valves, using check valves to prevent short cycling of refrigerant during the heat pump operation, and a reversing valve to enable the unit to operate in both cooling and heat pump mode. A factory set defrost module shall be fitted to allow defrosting of the outside coil when in heat pump mode.

7. HOT GAS BYPASS (Optional)

A hot gas bypass module shall be factory installed.

8. SUPPLY AIR FANS / MOTORS, CONDENSER FANS / MOTORS

High Efficiency - The fans shall be a direct drive centrifugal type with an ECM variable speed motors mounted on rubber isolation grommets. All models shall have two supply air fans and two condenser fans.

9. OUTDOOR / RETURN AIR MIXING DAMPERS

The outdoor and return air dampers shall have airfoil section aluminum extruded blades. The dampers shall have neoprene blade tip and jamb seals. Leakage shall not exceed 4 c.f.m. per sq. ft. at 3" W.G. differential pressure, as determined by a recognized testing laboratory.

10. FILTERS

The filters shall be of the manufacturer's standard MERV8 pleated type.

11. POWERED EXHAUST MODULE (Optional)

A powered exhaust module with motorized damper shall be incorporated with the condenser fans to provide 100% room exhaust. The exhaust damper shall be electrically linked to the mixed air damper for precise control.

12. TOP EXTENSION (Optional)

The unit manufacturer shall provide a color matched top extension for the cabinet, of size to suit the ceiling height.

13. RAISED BASE (Optional)

The unit manufacturer shall provide a color matched raised base, height as shown on the plans.

14. SIDE PIPE COVER (Optional)

The unit manufacturer shall provide a 5" wide pipe cover assembly, color matched to the unit. The cover shall be the depth of the unit, height to suit.

15. EXTERIOR WALL LOUVER

The unit manufacturer shall provide the wall louver. The louver shall be of heavy gauge steel with 45 deg. blades. The louver shall have 1/2" birdscreen attached to the inner face. The finish on the louver shall be primer coat or a color as per the Architect's instruction. The manufacturer shall provide a wall sleeve to suit the wall thickness, including an air flow separator to prevent mixing of the condenser air intake and outflow.

16. CONDENSATE PUMP (Optional)

A condensate pump shall be factory installed within the unit, behind the return air grille. The head capacity of the pump shall be a minimum of 20 ft. Pump shall be equipped with an overflow alarm contact.

17. LINE VOLTAGE WIRING

All internal line voltage wiring shall be by the unit manufacturer. A suitably rated remote circuit breaker shall be provided and installed by the electrical contractor.

18. INSTALLATION

The unit ventilator shall be installed plumb. Foam sealing tape shall be installed around the perimeter of the opening in the back of the unit before moving the unit into position against the wall. The exterior louver shall be caulked.

19. DDC CONTROLS

Control items shall be furnished by the controls contractor for factory mounting and shall function as described in the Controls Specification.

20. STAND-ALONE CONTROLS

High Efficiency Units - The control system shall be Temspec type 'V' incorporating a stand alone Honeywell T7350, seven day programmable thermostat.