

# Typical Specification

## For unit ventilator models VLC 24/30/36/48/60

1. The unit ventilator shall be model VLC 24/30/36/48/60 manufactured by Temspec Inc.

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2. **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 and a manual reset high limit shall be provided within the unit. The coil shall be rated for \_\_\_\_kW at a supply voltage \_\_\_\_Volts \_\_\_\_ phase 60 Hz. Each coil stage shall have an electromagnetic contactor to energize the coil.

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3. **HOT WATER HEATING COIL** The coil shall have 1/2" copper tube of minimum wall thickness 0.016" and shall have aluminum fins. The coil supply and return headers shall be copper pipe, stubbed out for sweat connection. The coil shall be factory pressure tested at not less than 350 p.s.i. A manual air vent shall be factory installed and ball valves fitted. The coil capacity shall be as shown in the schedule.

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4. **DIRECT EXPANSION EVAPORATOR COIL** The coil shall have 3/8" copper tube and aluminum fins. The coil capacities shall be as shown in the schedule. An epoxy coated galvanized steel, pitched drain pan shall be provided. The pan shall have a 'P' trap.

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5. **COMPRESSOR** The compressor shall be a hermetic type, reciprocating for 3 and 4 ton units, a scroll type for 5 ton units. The compressor shall be rated for \_\_\_\_Volts \_\_\_\_ phase 60 Hz. The compressor shall be equipped with a low ambient cut out, low and high pressure controls. A crankcase heater shall be included on reciprocating compressors. The system shall be factory charged with refrigerant.

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6. **HOT GAS BYPASS (Optional)** A hot gas bypass device shall be factory installed.

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7. **THERMAL EXPANSION VALVE** A thermal expansion valve shall be factory installed at the evaporator coil in 4 and 5 ton capacity units.

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8. **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.

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9. **TOP SUPPLY AIR PLENUM FOR NON-DUCTED UNITS** The unit manufacturer shall provide a color matched top supply air plenum with supply air grilles (two or three way discharge). The plenum shall be acoustically lined.

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10. **TOP EXTENSION FOR DUCTED UNITS (Optional)** The unit manufacturer shall provide a colour matched top extension for the cabinet, size to suit the ceiling height.

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11. **RAISED BASE (Optional)** The unit manufacturer shall provide a colour matched raised base, height as shown on the plans.

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12. **SIDE PIPE COVER (Optional)** The unit manufacturer shall provide a 5" wide pipe cover assembly, colour matched to the unit. The cover shall be the depth of the unit, height to suit.

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13. **SUPPLY AIR FANS / MOTORS, CONDENSER FANS / MOTORS** The fan shall be a direct drive centrifugal type with a multi-speed PSC motor mounted on rubber isolation grommets. The motor voltage shall be \_\_\_\_ V / 1 / 60 Hz. Model VLC 24/30/36 shall have a single condenser fan. Model VLC 48/60 shall have two condenser fans. All models shall have two supply air fans.

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14. **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.

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15. **FILTERS** The filters shall be of the manufacturer's standard disposable type.

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16. **EXTERIOR WALL LOUVER** The unit manufacturer shall provide the wall louver. The louver shall be of heavy gauge steel with 30 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 suite the wall thickness, including an air flow separator to prevent mixing of the condenser air intake and outflow.

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17. **BAROMETRIC RELIEF (Optional)** A barometric relief damper shall be incorporated in the back of the unit. The manufacturer shall provide the wall louver and wall sleeve. Note that the barometric relief damper option is not available with the models VLC 48 and VLC 60 which have a 'blow through' configuration.

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18. **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 \_\_\_\_ ft.

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19. **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.

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20. **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.

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

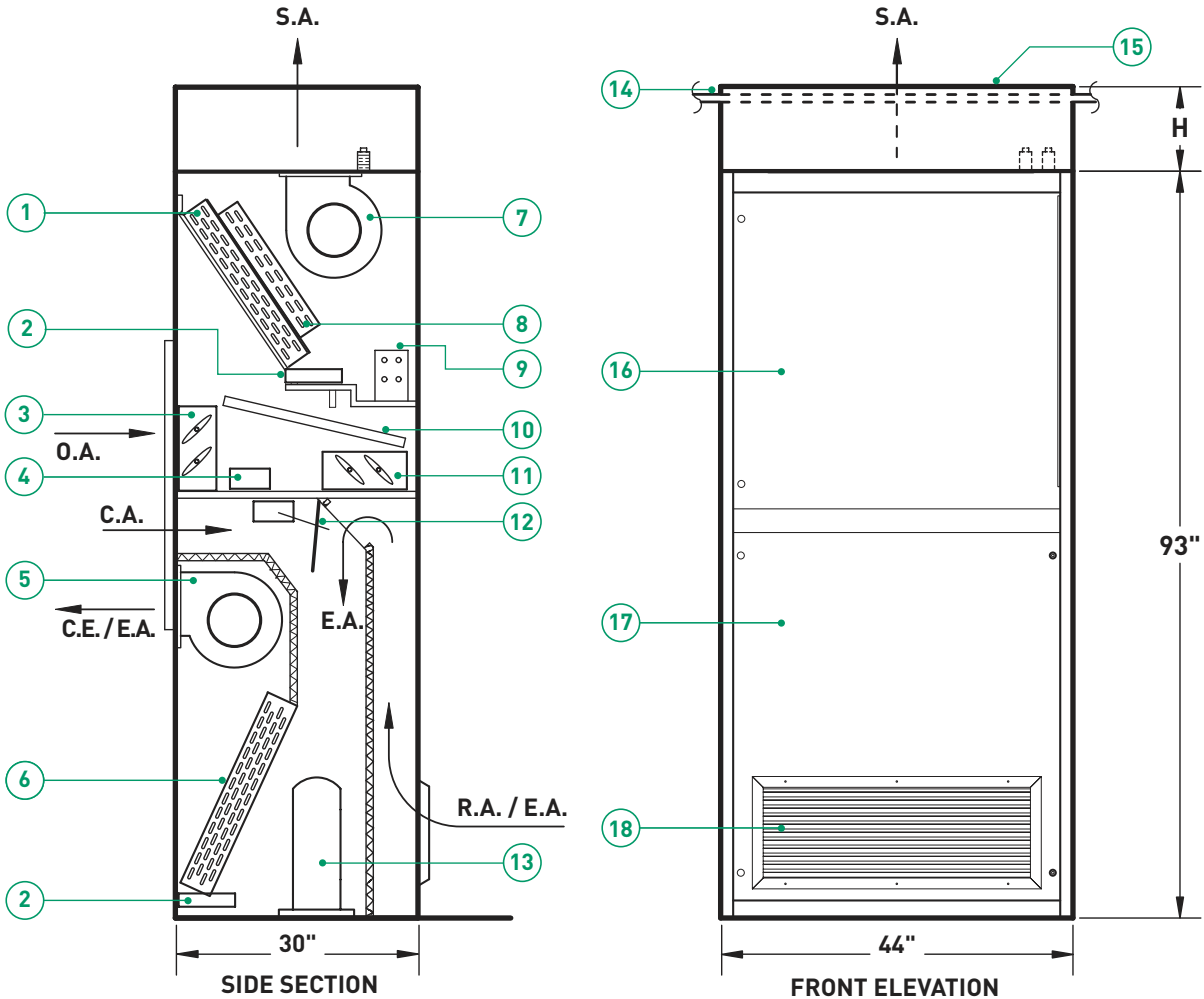
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22. **STAND-ALONE CONTROLS** The control system shall be Temspec type 'V' incorporating an OC-3 model, seven day programmable thermostat with integral "smart occupancy" sensor.

# Self-Contained Unit Ventilator

Models VHC 30, VHC 36, VHC 48, VHC 60

**DRAW THROUGH CONFIGURATION** (Hydronic Heating With Self-Contained DX Cooling)



S.A.	Supply Air	O.A.	Outdoor Air	C.E.	Condenser Exhaust Air
R.A.	Return Air	C.A.	Condenser Intake Air	E.A.	Room Exhaust Air (optional)

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|---|---|---|--|
| ① | DX cooling coil   | ⑩ | Filters  |
| ② | Drain pan   | ⑪ | Return air damper  |
| ③ | Outdoor air damper  | ⑫ | Powered exhaust damper and modulating actuator module (optional)                         |
| ④ | Mixed air damper actuator                                 | ⑬ | Compressor   |
| ⑤ | Dual condenser exhaust / powered exhaust fans             | ⑭ | Ceiling tile   |
| ⑥ | Condenser coil  | ⑮ | Top extension / duct shroud to suit ceiling height (optional). Dimension "H" is variable |
| ⑦ | Supply air fan(s)   | ⑯ | Filter/coil hinged access panel  |
| ⑧ | Hot Water Coil. Optional electric or steam coil available | ⑰ | Removable access panel   |
| ⑨ | Electrical box / controls enclosure                       | ⑱ | Heavy duty return air grille   |