Specification for MaxAir Standard Vertical Unit Ventilator

Unit Ventilators

A. Manufacturer

Unit ventilators shall be manufactured by MaxAir. Unit(s) construction shall meet the requirements of CSA/NRTL, UL or ETL approvals.

B. General Assembly

- Unit casing(s) shall be constructed of satin coat steel and are welded and reinforced for rigidity. All exterior finish shall be of a powder coated with slight texture in MaxAir beige (standard).
- Unit casing(s) interior metal shall be lined with 2" acoustic insulation, neoprene coated on air side. Interior bracing and bulkheads will be constructed of 16 gage galvanized steel welded and reinforced for rigidity to prevent vibration.
- Access doors shall be constructed as casing, c/w 2" acoustic insulation. The finish shall be the same as the casing exterior. Access doors shall be fully hinged and removable for complete serviceability with secure cam-lock fasteners. Return air grill is constructed into the unit and is manufactured with an oval punch pattern.
- Upflow and downflow unit(s) construction shall have supply air opening suitable for direct duct connection by others. Horizontal application shall have supply air opening and return air opening suitable for direct duct connection by others.

C. Heating Coil

- The hot water coil shall be constructed of ½" copper tubes, aluminum fins and a 16gage galvanized frame. Coil shall be configured for ease of field connection and future removal. A manual air vent shall be factory installed. Ball valves shall be shipped loose for field installation. Hot water coil capacities shall be shown in the schedule.

D. Supply Fan and Motor

- The supply air fan shall be a direct drive, double inlet centrifugal fan with a baked enamel finish. Fan motor shall be a 3 or 4 speed motor c/w speed taps and isolated from the fan housing with rubber grommets. Fan and motor shall be a complete assembly and installed at the factory, secured to the unit as to prevent vibration and noise transfer. Fan and motor shall be constructed with release latches and power disconnect for ease of serviceability. Motor voltage shall be specified in the schedule.

E. Air Filters

- Filter(s) shall be a manufactured 2" filter, horizontal arrangement with slide out track serviced from access door and _ spare set.

F. Dampers

- The return air and outside air dampers shall be aluminum air foil type, low leakage and interconnected for simultaneous operation. Damper actuators shall be factory installed and shipped with unit(s).

G. Plumbing

- Plumbing shall be pre-piped within the unit complete with hot water control valve and actuator. All plumbing to be pressure tested at the factory to 120 p.s.i.

H. Line Voltage Wiring

- Line voltage wiring shall be factory installed in conduit within the unit(s) to a single point connection. An unfused disconnect, door switch, fan relay and 40 va transformer shall be factory installed. All components shall contained inside a hinged control panel as to access damper section.

I. Control Wiring

- Control wiring from valve actuator and damper actuator shall be factory installed in conduit within unit(s) to control panel terminal strip.
- A detailed wiring diagram shall be mounted inside the control panel door and it shall indicate all line and low voltage wiring, terminal strip connections, and foreign interface details.
- All third party control interface requirements shall be provided at the local terminal strip.

J. Outside Air Louver

- Outside air louver to be constructed of heavy gage aluminum with affixed 45 degree blades to prevent water penetration. The louver shall have ½" bird screen attached to the inner face.The exterior face shall be a mill finish.
- Installation of the outside air louver shall be adjustable in height to accommodate opening positioning.

Specifications for MaxAir Optional Components

K. Acoustic Discharge Plenum

- Acoustic plenum casing(s) shall be constructed of 18gage satin coat steel and are welded and reinforced for rigidity. Exterior finish shall be powder coated with slight texture in MaxAir beige (standard). *Height to be determined by division 15.*
- Acoustic plenum casing(s) interior metal shall be lined with 2" acoustic insulation, neoprene coated on air side.
- Plenum(s) construction shall have supply air opening suitable for direct duct/pipe connection by others.
- Plenum(s) shall be shipped complete with ¼" neoprene foam and fasteners to seal and secure plenum to the unit ventilator.
- Access door on plenum(s) shall be removable and be constructed for accessibility of plumbing and conduit connections.

L. Extension Shroud

- Extension shroud(s) shall be constructed of 18gage satin coat steel. Exterior finish shall be powder coated with slight texture in MaxAir beige (standard). *Height to be determined by division 15.*

M. Outside Air Plenum

- Outside air plenum shall be constructed of 18gage satin coat steel. Exterior finish shall be powder coated with slight texture in MaxAir beige (standard). *Top or bottom opening to be determined by division 15.*
- Plenum shall be insulated with thermal acoustic insulation.

N. Relief Air Opening

- Relief air opening shall come complete with louver and damper, either fabric back draft or motorized low leakage controlled simultaneously with outside air damper.

O. Interior Liner

- Interior of unit to be completely lined with 22ga. galvanized perforated metal.

P. Raised Base

- Shall be constructed and finished the same as unit and to suite specific application of meeting engineered height requirements.