

Specifications for Vent Master Ecolo Air Kitchen Exhaust System

1.0 Kitchen grease and odor control system.

2.0 General

The kitchen grease and odor control system shall consist of a three-stage grease removal filter section followed by an odor reducing section. The fan module shall be an integral part of the entire system and may be mounted directly after the filter/odor reducing section or remotely. A control panel shall be provided to start and stop the system, monitor filter pressure drop and odor reducing operations and alarm for fire, filter change and missing filter. Systems using electrostatic precipitation or requiring hot water and drain connections are not acceptable. The system shall be manufactured by Vent Master.

3.0 Construction

The filter section casing shall be double wall construction reinforced and braced for maximum rigidity. Inner walls shall be 16 gauge liquid tight welded construction and outer walls shall be minimum 20 gauge steel. Filter section to be insulated with 1" insulation. The filter module shall be complete with three stages of filtration. The first stage shall be a 4" pleated filter rated at 40% per ASHRAE 52-76. The second stage shall be a 22", 95% efficiency bag filter. The final stage shall be a 12" deep absolute filter rated at 95% DOP to 0.3 micron and shall have a locking device to ensure zero air bypass. All filter tracks shall have monitors to prevent operation without filters. In addition, there shall be four pressure switches to monitor each filter stage and the total filter bank. A UL listed fire damper with fusible link shall be located at the outlet of the filter section.

The odor-reducing module shall consist of a liquid atomizer system with timers mounted in the remote control panel to switch on, off and cycle the system to provide infinite adjustment. Charcoal filters are not acceptable.

The fan housing shall be constructed of minimum 16 gauge cold rolled steel with all joints suitably reinforced and braced for rigidity. The fan shall have a DWDI backward inclined wheel with AMCA rating, mounted on heavy-duty ground and polished steel shaft. Bearings shall be pillow block type with lubrication nipples. Hinged access doors shall be provided to allow easy access to fan and motor. Unit to be complete with prewired motor starter and electrical disconnect switch.

4.0 Controls

The system shall be furnished with a control panel constructed from heavy gauge steel suitable for remote mounting and have front locking screws. Control panel shall be complete with timers, relays and lamps to indicate system on, condition of each filter, filter missing, fire and odor reducing operation. Controls and interconnecting field wiring to be 24 volt AC. Control panel shall be available in stainless steel if specified. Startup of the Kitchen grease and odor control system shall be by factory trained personnel.

5.0 Approvals

Kitchen grease and odor control system shall be UL listed and labeled.