

SPECulations

A Periodic Newsletter for Design Professionals
About Innovative Products and Ideas Worthy of Specification Consideration

May
2000
(E2)

This
Issue



Vent Master

SPECIALISTS IN KITCHEN VENTILATION
Since 1975

Exhausting a Kitchen, Don't Have a Roof?

What's the Solution?

OVERVIEW

You want to put a restaurant where? Your co-workers break into laughter, until they see a description of Vent Master's **EcoloAir** and **Kiosk Ventilation System**. Their skepticism is quickly replaced by amazement. They realize what you already know. **Vent Master allows you to put a restaurant anywhere – there are no impossible kitchen locations!**

Depending on the structure, the need for kitchen ventilation can pose significant challenges. Non-traditional or historical sites often cannot accept conventional ventilation systems. Institutional buildings may not provide adequate shaft space or rooftop access. New buildings may be unsuitable for rooftop exhaust due to their architectural design. Office towers require long duct runs and fire-rated shafts that are prohibitively expensive. Your solution? From basement to penthouse, no location is impossible for Vent Master.

How does Vent Master exhaust smoke, odors and grease-laden air without laying out miles of duct to the roof, terminating in an exhaust fan the size of a jumbo jet engine? **The EcoloAir Filtration system removes 99% of all grease and smoke to ASHRAE Standard 52-76.** This incredibly high efficiency rating enables you to run de-rated ductwork to whatever discharge point suits the project; typically, through exterior wall venting as low as 10' above ground level. The owner savings is substantial, not only for ductwork, but for labor as well.

All **EcoloAir** components meet National Building Standards, National Fire Codes and National Fire Protection Association

(NFPA) guidelines. They are also UL tested and listed. The ASHRAE standard is achieved by using the same filtration system that is demanded by hospital operating rooms and computer clean rooms. No smoke. No grease. No fire hazard. No kidding!

Perhaps your challenge isn't with a multi-story building but a mall that wants to put restaurants in an area not originally designed for kitchen ventilation. Where do you start?

Easy – The Vent Master **Kiosk Ventilation System (KVS)** is a self contained exhausting system that eliminates the need for any ductwork, vents or roof access. It is specifically designed to travel to any kitchen location, fit perfectly into any setting and provide clean exhaust air right on the spot by filtering, then redistributing the air throughout the kitchen. The **KVS** sets the industry standard by being the only stand-alone venting unit that accepts all sizes and specifications of electric cooking decks.

With no constraints on your creativity, you can let your imagination run free. Whether you want a kitchen in an exhibition booth or the 27th floor of a luxury hotel, Vent Master is your answer to any kitchen exhaust challenge!



Convention Centre
Vancouver, B.C.

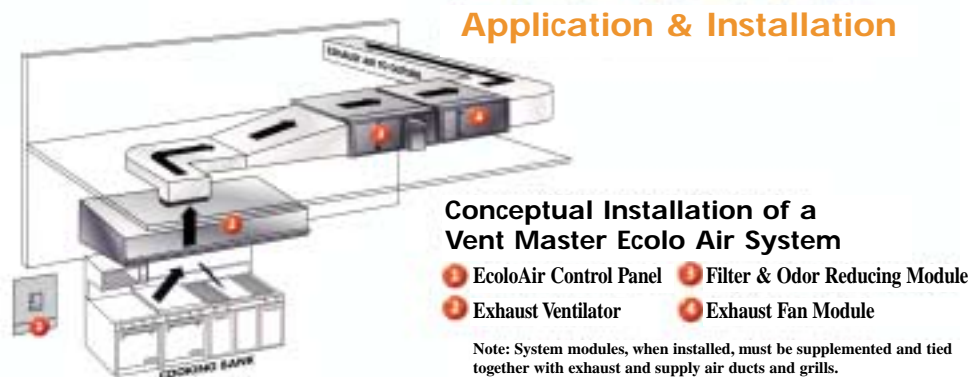
Where would you put a grease fan on a structure like this?

The EcoloAir Kitchen System



ABOVE: This is NOT an Air Handling Unit! It is a modular kitchen exhaust system that collects heat, smoke and grease-laden particles from cooking appliances, then passes the air through three stages of filtration. The cleaned air is then treated for odors by an exclusive liquid deodorizer which is atomized into the air stream, thus substantially reducing odors.

BELOW: Depicted is an **EcoloAir** system installed above a kitchen ceiling. It can also be installed on the kitchen floor, the mechanical room or any adjacent location. The remote-mounted control panel monitors the entire system with audible and visible alarms which alert personnel to the condition of the pre-filters, bag filters, absolute filters and odor control module. It also includes a fire alarm and emergency shut-off controls.



BENEFITS TO THE OWNER/CONTRACTOR

Maximize Revenues – With **EcoloAir**, you can have a restaurant virtually anywhere you want in any type structure. Don't lose a potential tenant!

Less Ducting – No need for expensive fire shafts and ductwork to the roof. Save both money and space!

Choices – No smoke, odor or grease emits from the building, so you can put in any type restaurant you wish, including a high-volume flame broiler operation, i.e. – Burger King.

Safety – The unit will not operate if any of the access doors are open or a filter is missing. Emergency controls will automatically shut down the system in case of a fire.

Easy Maintenance – Simply replace the filters when the red filter warning light comes on. This light gives you up to a two-week warning before filters must be replaced. Unlike the competition, there are no messy charcoal filters leaking black soot all over.

Installation Locations

Perfect for shopping malls, boat and airport terminals, courts, hotels and historical buildings; there are over 1000 EcoloAir systems in operation in some of the most prestigious locations world-wide. A few of those locations include:

- L.A. Times, Los Angeles
- The Venetian Hotel, Las Vegas
- Prince Hotel, Waikiki
- Las Vegas Motor Speedway
- Skydome, Toronto
- Hawaii Convention Center
- Beau Rivage Hotel, Mississippi
- Peachtree Center, Atlanta
- Pro Players Stadium, Florida
- Loews Hotel, Philadelphia
- Sun Trust Plaza, Atlanta
- Convention Centre, Vancouver

Kiosk Installations

- L.A. Int'l Airport, Los Angeles
- Chateau Marmont, Hollywood
- Los Angeles County Court House
- RCA Dome, Indianapolis
- Georgia Dome, Atlanta

BENEFITS TO THE ENGINEER

Approved – The **EcoloAir** has the approval of the City of Los Angeles, National Building Standards, National Fire Codes, National Fire Protection Association and is UL tested and listed.

Less = More – Using a UL listed hood allows the engineer to base the hood exhaust on the cooking bank requirements; not just on hood size. Less exhaust means a smaller **EcoloAir** system and less makeup air.

Flexible – The filtration section can be mounted close to the hood while the fan can be remotely located. You also have the flexibility to combine the modules together in one unit.

Design Freedom – Run your discharge duct where you want; up, down or sideways, and exhaust it where you want – it's clean hot air!

Combinable – Combinable Use a single fan with multiple filter modules or a single system serving multiple hoods. Ecolo Air is completely versatile.

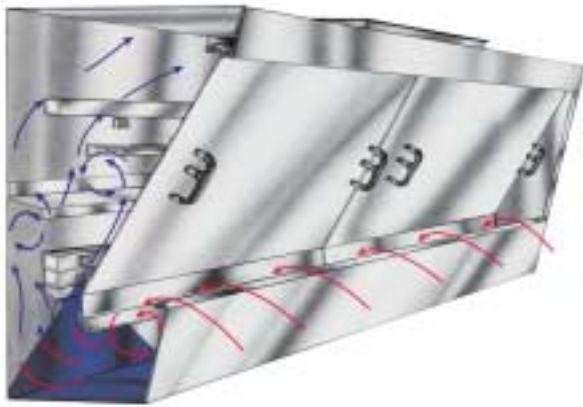
Complimentary Vent Master Hoods

The purpose of a kitchen exhaust ventilator (or kitchen hood), is to remove the majority of grease before it enters the exhaust duct and exhaust fan. The better the hood the better the filtration and filter life. There are three methods for grease removal: change of velocity, change of direction, change of temperature. Here are brief descriptions of different grease removal devices Vent Master uses in their kitchen hoods:

GOOD – The GFIII baffle filter in the GL-B hood is a series of vertical 24 ga. stainless steel baffles in a 20 ga. stainless steel frame. The baffles change the direction of the grease-laden air and divert grease particles out of the air stream by centrifugal force. Approximately 85% efficient by weight.

BETTER – The dry extractor of the Cyclo Maze Dry hood uses cyclonic motion created by the plenum design. The air then passes through a “maze” of 9 turns. The shape of the plenum alternately speeds up and slows down the air. The easily removable cartridges allow cleaning at night. Approximately 93% efficient by weight.

BEST – The Cyclo Maze Wash, with continuous cold water mist and hot water wash, is the state of the art in kitchen ventilators. As the grease-laden air enters the plenum, it passes through a wall of cold water where it is instantly cooled, causing the grease particles to solidify and drop into the system’s drainage trough. It is then thrown into a cyclonic motion and turned 180°. The air then passes through the “maze” described above. At the end of operation a hot water and detergent wash cycle is energized, completely cleaning the plenum. Approximately 98% efficient by weight.



Pictured is a Cyclo Maze series grease extractor. The red arrows indicate hot air entering the ventilator which is then cooled by the cold water mist. The blue arrows show how the turbulent air continues to circulate for efficient grease removal.



Kiosk Ventilation System (KVS)

Developed for small kiosk-type food court operations and non-traditional sites, the **KVS** can serve various combinations of commercial type electric cooking appliances. Similar to the **EcoloAir**, the **KVS** tower houses 3 stages of filtration, exhaust fan and odor control. Additional benefits include:

- 1.) The **Kiosk Ventilation System** is ideal where rooftop access is unavailable, as it cleans air internally. No ducting eliminates the need for roof access.
- 2.) Duct work and large blowers are no longer needed. The **KVS** cleans exhaust-air right on the spot.
- 3.) The compact modular design of the **KVS** unit makes installation easy... it can even fit into an elevator.
- 4.) The **KVS** sets the industry standard by being the only stand-alone venting unit that accepts all sizes and specifications of electric cooking decks.
- 5.) Use the **KVS** as a temporary, moveable or permanent kitchen ventilating system.

FEATURES

- 1.) Quick and simple installation.
- 2.) All stainless steel construction - easy to clean.
- 3.) Filtered clean air can be 100% recirculated or exhausted out doors as clean air. Up to 50% may be recirculated through the air wall under the cooking equipment.
- 4.) May be flush mounted against combustible walls.
- 5.) The **KVS** unit includes; power receptacles, controls with fuses and circuit protection for the cooking equipment.
- 6.) **KVS** is approved to operate with various combinations of commercial cooking appliances, including broilers.
- 7.) The tower houses the filters and a complete wet chemical fire protection system which is piped into the exhaust hood. The tower can mount up to 30' away from the exhaust hood.

SPECulations is published by: Toro-Aire, 1708 Mahalo Place, Dominguez Hills, CA 90220 • Phone (310) 632-6000 • Fax: (310) 632-8919

Email: publisher@toroaire.com

Web Page: www.toroaire.com

Do you have a customer or colleague who would enjoy **SPECulations**? Send us their name and address and we will add them to our mailing list.

Editor-In-Chief
Dave McIntyre

Managing Editor
Monica Froeber

Technical Editor
Victor Petring

Web Consultant
Karin West

Copy Chief
Michael Green