

Since its introduction in 2007, the Avtec® **EcoArch™** has taken the commercial kitchen ventilation market by storm. And with good reason-the **EcoArch** is the most energy-efficient, operations-friendly, exhaust-only hood on the market.

### **Energy-efficient design:**

The combination of our innovative arch top and front-mounted, high-velocity exhaust slot reduces the amount of exhausted CFM by up to 60% compared to traditional CFM rates. This translates into an annual energy savings approaching 55%, which is better than all major competitors. Perfect for "Green Building" solutions.

#### Patent-pending, aerodynamic arch:

The height / design configuration of our exclusive arch-top hood is critical to minimizing turbulence and maximizing the amount of heated air that can be contained and immediately exhausted. Contaminated air is rolled away from the chef and directed to our front-located exhaust plenum where the vast majority of it is instantly exhausted out of the reservoir area. In contrast, when trapped, heated air hits the perpendicular surface of competitive, flat-top hoods it tends to "explode" in a turbulent, multi-directional manner adversely affecting performance.

## **High-velocity exhaust slot:**

The front-located, high-velocity exhaust slot runs the entire length of the top of the hood. This location coupled with the arch design is key to mastering the capture of contaminated air at very low exhaust requirements—it creates a rate of speed higher than the updraft velocities developed during the cooking process and allows heated air to flow directly to the filter medium.

# Front-located exhaust vents / grease filters:

Vents and filters are easy to reach, remove, clean and replace. In all aspects of the EcoArch system, ease of use is inherent. This is especially important in kitchen environments challenged by skilled labor shortages and turnover.

#### **Heat sensors:**

Heat sensors automatically turn on the exhaust fan when heat from a cooking operation is detected. Our heat sensors are clearly visible. Other hood systems put them in the exhaust collar slowing response time and making ordinary cleaning of sensors to remove grease much more difficult. Heat sensors are optional.



#### **Quality construction:**

The EcoArch has gained a reputation for superior design and reduced complexity. Compared to competitors, its first-rate construction shrinks service costs and minimizes the chance smoke, heat, grease, etc will escape into the kitchen environment increasing energy costs (air-conditioning load) and decreasing productivity (unpleasant workspace). If the hood is located in the open where it is visible to patrons, this can make the environment uncomfortable for customers too.

# **Light fixture alternatives:**

This feature allows users to maximize lighting at the cooking surface with the least amount of energy consumption. Incandescent light fixture shown. Optional recessed fluorescent light fixtures available.



## Front-mounted make-up air plenum:

Make-up air is introduced to the kitchen space by way of a full length, make-up air plenum located along the front of the hood. Make-up air is introduced at low velocities so as not to interfere with the hood's performance and to provide additional comfort for employees. The make-up air plenum can be mounted flush with the ceiling or extended down as shown, and, can be mounted next to the hood (as shown) or further away from the hood depending on job site conditions.

## **Collar systems:**

The EcoArch has energy-efficiency ratings on both single-duct-collar and dual-duct-collar systems. Hood sections nine feet and above are more energy efficient with a dual-collar system. Unlike competitors, the EcoArch requires smaller duct work, so on larger hoods, this savings easily offsets the cost of dual collars customers prefer for the increased energy efficiency.

## **Quiet operation:**

Not only does the EcoArch reduce the amount of exhausted CFM by up to 60% compared to traditional CFM rates (which can translate into energy savings over 50%), but it does so more quietly than any other hood.

## **Chef-friendly:**

The EcoArch is designed to direct heated, contaminated air away from the chef immediately. The front-mounted exhaust plenum, high-velocity exhaust slot and aerodynamic arch are critical design features in accomplishing this objective. Competitive hoods do not compare.

#### **Fan efficiency:**

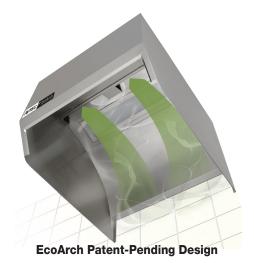
Unlike some competitors, the EcoArch does not require a secondary fan to optimize performance—the EcoArch does not need to blow extra air around to achieve energy efficiency and capture our rates. The secondary fans, located either on the hood or in another room, require ancillary duct work and carry additional installation expense and operational cost. A secondary fan is a more expensive solution to energy efficiency.

## Fastest payback:

Less make-up air is required for the EcoArch, so duct work, fans, etc are smaller thereby reducing installation costs. Couple this with a design that significantly lessens HVAC energy costs and features that allow it to operate at a lower cost than competitors, and the EcoArch handily garners the best-in-class-for-value title.







| 150 cfm/ft (EcoArch) vs. 250 cfm/ft (Traditional Unit)<br>12' Hood, 400°F, Gas & Electric, Based on 2007 Utility Rates |        |               |                    |                          |          |
|--|--------|---------------|--------------------|--------------------------|----------|
| LOCATION   | CFM/FT | ANNUAL<br>GAS | ANNUAL<br>ELECTRIC | TOTAL ENERGY<br>ANNUALLY | SAVINGS% |
| New York, NY   | 250    | \$2923        | \$1228             | \$4151                   |          |
| New York, NY   | 150    | \$1754        | \$745              | \$2499                   |          |
| Total Savings  |        | \$1169        | \$483              | \$1652                   | 40%      |
| Atlanta, GA  | 250    | \$1774        | \$908              | \$2682                   |          |
| Atlanta GA   | 150    | \$887         | \$480              | \$1367                   |          |

**Best For Energy Savings (an example)** 

# **EcoArch 2000 Series for heavy-duty applications EcoArch 4000 Series for light- and medium-duty applications**

Total Savings

Options:

- PBB ceiling-mounted, perforated make-up air plenum box
- Fire system end-mounted enclosure cabinet
- Ceiling enclosure panels
- Hanging rods
- Pre-piped wet chemical fire extinguishing system
- Wall flashing
- Hood-mount fan on/off buttons



Just Betters



#### Other quality products from Avtec:

Ventilation Systems: Taku and Chinook Utility Distribution Systems Conveyor Systems





