

Kitchen Hood Exhaust

Industry: Food Service Industry

Contaminate: Smoke, grease and odor generated from the cooking process, especially grilling or frying

Equipment: Inertia impinger (stage #1) to remove heavy grease particles followed by heavy duty water wash, electronic air cleaner (stage #2) to collect smoke. Stage 3 consist of 65% ASHRAE filters (optional, but recommended, backup to EAC), followed by activated carbon (stage #4) for odor control.

Trion Models: Air Boss Model 73 Series or ATS

Efficiency: 95 % DOP per MIL Standard 282

- Benefits:**
- (1) Compliance with local municipality codes such as pollution control, health and safety, fire and mechanical.
 - (2) Cleaning and exhausting at the ground level is less expensive than exhausting at roof via fire retardant duct work. On multi story buildings, lease space is not lost to interior ducting to the roof.
 - (3) Eliminate neighbor complaints. One's exhaust is another's intake!

Code

- Requirements:**
- (1) ETL or UL is required in many cities. We recommend either for all systems.
 - (2) NFPA '96 is recommended for all installations.
 - (3) Local building codes will also apply to the installation.

Special

- Considerations:**
- (1) Because grease coalesces into a solid, it must be removed daily to maintain satisfactory operation. For best cleaning results, the precipitator must be washed immediately with hot water (140°F) when the grill is shut down.
 - (2) Stand off, ceramic insulators are required.
 - (3) Exhaust air temperature must be below 150°F at the electronic air cleaner.
 - (4) Condensation. Because of possible temperature differential from inside to outside the exhaust duct, especially outdoors, condensation can develop. All outside ductwork should be insulated. Also, we recommend that the control be programmed to run the fan only, for 30 minutes prior to energizing the power supply.
 - (5) Many installations will be outdoors, on a pad or roof. Our equipment should be weatherproofed in accordance with Trion Bulletin No. 04-0028 "Outdoor Installations".

- (6) Wood burning grills/ovens will produce creosote, which is difficult to clean from collector cell plates. Tri-Dex 2000 should be used on these applications.
- (7) Fire suppression systems are always recommended and usually required to meet NFPA '96 standards and/or local codes.

Customer Base: Typical food establishments requiring this equipment includes:

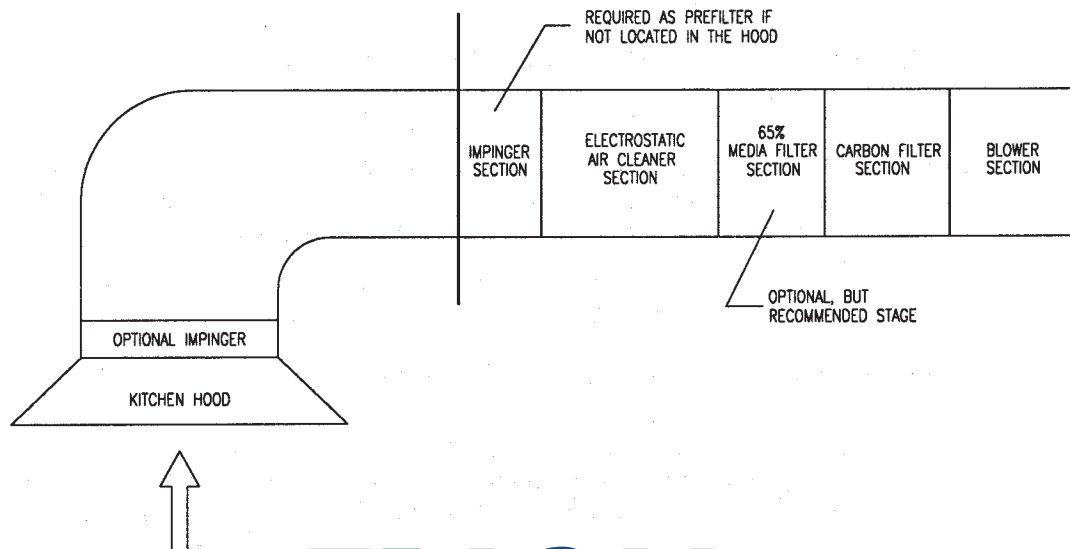
- Restaurant chains such as fast foods, casual dining, and family style restaurants.
- Business and industry where cafeterias and restaurants are located in corporate headquarters, shopping centers/malls and hotels.
- Institutions such as schools, hospitals and nursing homes.
- Fine dining restaurants

Industry related groups that promote and drive this market are:

- Food Service Industry including consultants, equipment reps, dealers, fabricators and installers.
- Mechanical engineering firms specializing in kitchen hood exhaust.
- Local municipalities, especially the mechanical, health and fire code officials.
- Local Air Quality Management District (AQMD).

References: TGI Fridays, California Pizza Kitchen, Safeway Food Stores, Planet Hollywood, Allstar Cafe, Applebee's, Burger King, McDonalds

Typical System Arrangement:



TRION
Air Purification Systems

