

KITCHEN VENTILATION REPORT

A clean kitchen exhaust system is not cosmetic – It's first stage fire prevention!

Every year there are restaurant fires, over 6000 of them. Most major chains have had more than one.

Many fires start on an appliance then spread to the exhaust system. Buildings are damaged and millions of dollars are wasted on cleanup and repairs.

Most system owners believe that exhaust cleaning is only a janitor cleanup process like garbage pickup or cleaning the cooking equipment.

All grease that collects in the hood, duct work and exhaust fan is **fuel**.

Fires close restaurants for weeks or even months, in fact many never reopen. A clean exhaust system improves the safety for staff, buildings and bottom line.

Cleaning frequencies are based on inspections for grease accumulation in hoods and ducts. Regular accurate inspections are critical for fire safety and are required by code.

How to reduce grease build-up in an exhaust system:

- Use high efficiency cartridge style hoods. (see figure 1a)
- Clean cartridges regularly as needed. A clean cartridge is more efficient.
- Use UVC style hood systems. They use an efficient filtering system with secondary grease separators. The UVC greatly reduces the duct cleaning frequency and the fire hazard. In many applications further duct cleaning may not even be necessary

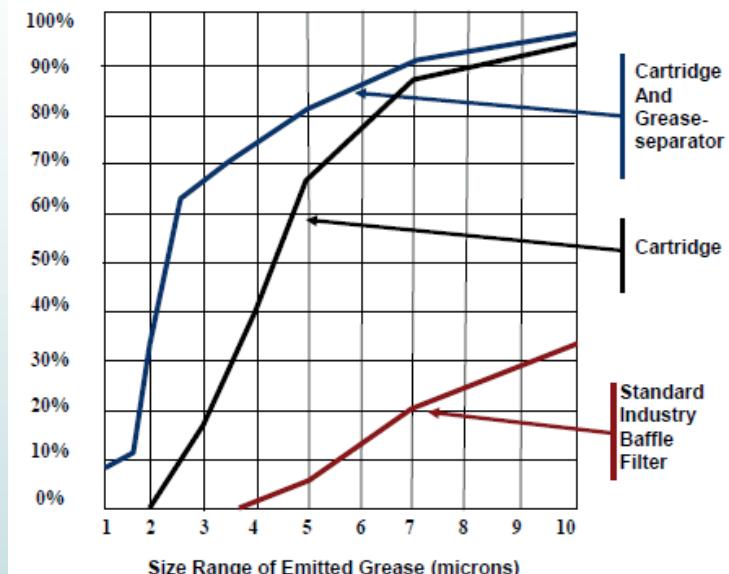


Figure 1a grease removal efficiency chart

Why use UVC technology? IT HELPS KEEP THE EXHAUST SYSTEM CLEAN!

After the grease-laden exhaust air passes through mechanical filtration it encounters the UV lamps.

There are two primary chemical reactions that take place in the UV oxidation process. The UV lights emit radiation in the UV-C band and also create ozone in the vicinity immediately surrounding the lamps. When UV-C directly hits grease molecular chains it breaks them into smaller compounds, this is called Photolysis. The photolysis reaction is most effective on small grease particles (especially vapor). It is critical to have efficient mechanical filtration prior to the UV lamps to eliminate the large grease particles.

The second chemical process is called Ozonolysis. The ozone, created from the interaction of the UV light with the oxygen molecules in the air, continues to react with the grease molecules as they move through the exhaust duct to atmosphere. The UV oxidation process does not create new compounds that are toxic or harmful.

The UVC light reacts with the grease, cleaning it off of the hood, duct and fan services.