UVi-Aire

UV Ozone Lamp For Kitchen Exhaust

Duct Mounted  DUO Series

Keep Exhaust Ducts Clean

Reduces Cooking Odours

Reduces Smoke and Oil Mist
How UV Ozone Lamp Works

First Stage: The high intensity UV irradiance oxidizes the oil mist and grease, converting them into vapour and other manageable substances.

Ozone is produced by UV lamps without the Titanium Dioxide coating that attenuates frequencies lower than 200 nanometers. At the 180 nm line, it breaks oxygen apart to form 2 unstable O which in turn fuse with another O2 to form O3.

Ozone is a powerful oxidant and extremely effective germicidal agent which destroys organic molecules in the air as well as grease and oil from kitchen exhausts. It has a very short lifespan and in ambient temperatures, it will last 20-30 minutes before it returns to normal oxygen O2.

UV ozone is also a scientific breakthrough in odour and grease control, the most effective method known today for eliminating unpleasant odours, grease and oil mist in processing areas.

However in cases where a lot of smoke is generated during the cooking process such as char-grilling, the use of an industrial air cleaner or electrostatic precipitator is recommended.

DUO units should be installed as near to the cooking hoods as possible, or as far as possible from the discharge outlet, so as to give the longest possible contact time with the cooking exhaust. For optimum performance, the contact time for air treatment in the duct should be approximately 0.1 to 0.2 seconds or longer if possible. Charcoal filters may be installed at the last stage to mop up residue ozone.

Second Stage: The UV lamp produces Ozone O3. This is a very powerful oxidizing agent. It oxidizes the many organic compounds and acts as an deodorizing agent and is effective for odour control. It also sterilizes the air.

Units are designed for easy mounting to existing or new exhaust ducts. The ballast housing and other components are kept out of the air stream. Lamps can be easily replaced via the ballast housing. Multiple units can be connected and linked to a separate control unit for interlocking operations with the exhaust fan. The control unit is an optional item.
Ballast Housing: Mild steel, Epoxy Coated

Dimensions: DUO-1 250mm x 155mm x 90mm, DUO-2 490mm x 155mm x 90mm

FEATURES & BENEFITS

- Compact Design
- Quick and Easy Installation
- Easy Maintenance
- Reduces Duct Cleaning
- Operations Indicator LEDs
- Interlock Control Panel
- No Pressure Drop
- Fits All Exhaust Ducts
- No Noise

As the DUO units produce intense UV radiation and large amount of ozone, its operation should be interlocked with the exhaust fan for safety reasons.

The DUO Interlocking Unit is available as an option. The interlocking signal from the kitchen exhaust fan control panel shall be 230VAC, max 2A. That is, the kitchen exhaust fan control panel sends the 230VAC supply to activate the DUO Interlocking Unit, thereby activating the DUO units.

Dimensions of CP-FDC-230: 250 x 210 x 151 mm
Installation: The DUO units are easy to install. Simply cut out the appropriate hole size on the duct and attach the fixture with self-tapping screws. Secure the lamps with the retainer plate and wire the input supply. DUOs installed near the cooker hoods, after the elbow bends.