

# UVi-Aire

## UV Ozone Lamp For Kitchen Exhaust

### Duct Mounted DUO Series



Keep Exhaust  
Ducts Clean

Reduces Cooking  
Odours

Reduces Smoke  
and Oil Mist

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 O<sub>2</sub> to form O<sub>3</sub>.

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 O<sub>2</sub>.

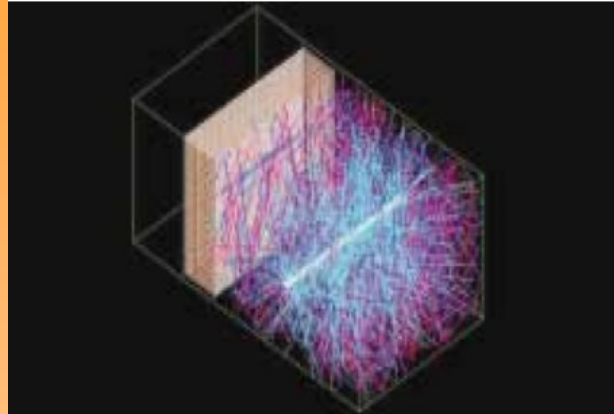
UV ozone is also a scientific breakthrough in odour and grease control, the most effective method known today for eliminating unpleasant odours, grease and oil mist in processing areas.

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.

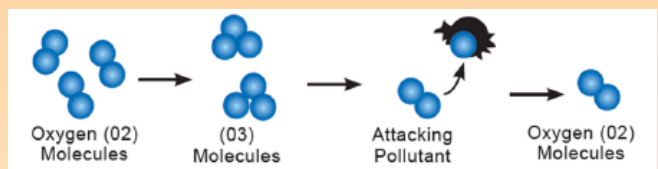
DUO units should be installed as near to the cooking hoods as possible, or as far as possible from the discharge outlet, so as to give the longest possible contact time with the cooking exhaust. For optimum performance, the contact time for air treatment in the duct should be approximately 0.1 to 0.2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

## 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

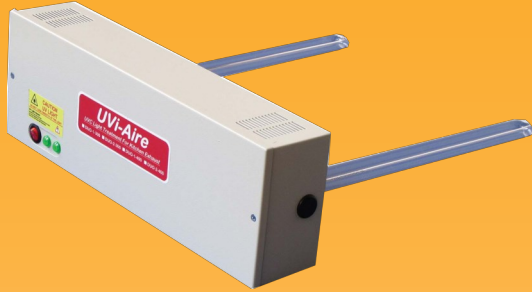


**Second Stage:** The UV lamp produces Ozone O<sub>3</sub>. This is a very powerful oxidizing agent. It oxidizes the many organic compounds and acts as a deodorizing agent and is effective for odour control. It also sterilizes the air.



Ozone is suicidal molecule; it looks for a contaminant to attack, oxidizing it and destroying itself in the process

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.



Model No.	Input Voltage	Watts	Lamp Length	No. of Lamps	Lamp Life	Capacity (CMH)
DUO 1 X 300	230 VAC	45	300mm	1	9000 Hours	500-1000
DUO 1 X 400	230 VAC	65	400mm	1	9000 Hours	750-1500
DUO 2 X 300	230 VAC	90 (45x2)	300mm	2	9000 Hours	1000-2000
DUO 2 X 400	230 VAC	130 (65x2)	400mm	2	9000 Hours	1500-3000

**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

### OPTIONAL ITEM

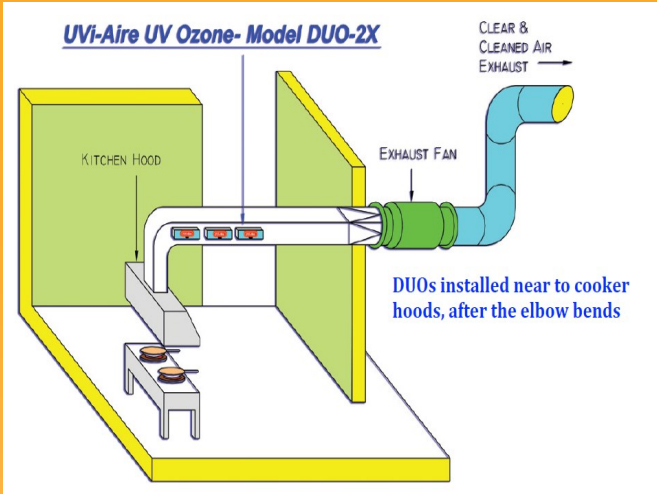
**DUO Interlocking Control Panel  
CP-FDC-230**



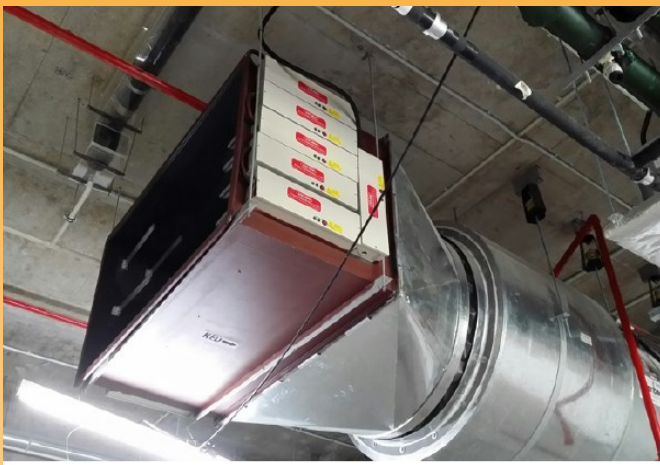
As the DUO units produce intense a UV radiation and large amount of ozone, its operation should be interlocked with the exhaust fan for safety reasons.

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

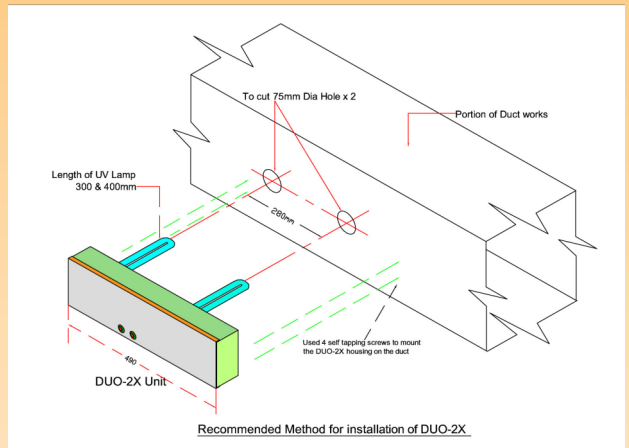
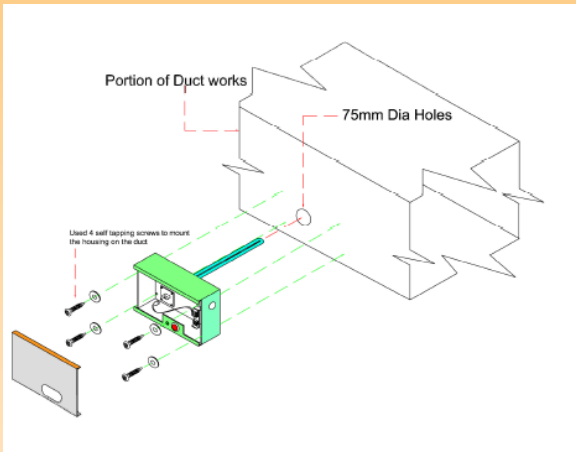
**Dimensions of CP-FDC-230 :** 250 x 210 x 151 mm



DUOs installed at a central location along main duct allows for maximum contact time between ozone and kitchen odours



**Installation:** The DUO units are easy to install. Simply cut out the appropriate hole size on the duct and attached fixture with self tapping screws. Secure the lamps with the retainer plate and wire the input supply



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