

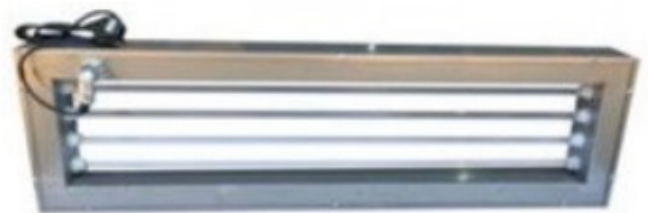
# AIR METRICS

ENVIRONMENT PTE LTD

## YOUR ONE STOP KITCHEN SOLUTION (UVI-GREEN)

**99.9%**

KILLING RATE OF  
MICROORGANISMS  
SUCH AS VIRUS,  
BACTERIA, YEAST  
AND FUNGUS.



**254nm**

**185nm**

**UV GREEN (2 SIZES)**

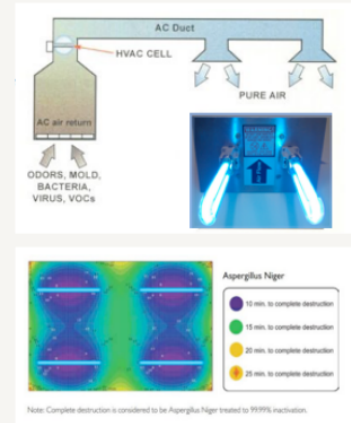
CONTROL GREASE, SMOKE  
& ODOUR

# ULTRAVIOLET STERILIZER

## DGRH-ETI Series Germicidal UV-C Lamp Sterilizer

This product is designed to help disinfect the internal surfaces of heating, ventilation, and airconditioning systems. Bacteria, viruses and fungus that are in the air stream that passes through the sterilizer will also be reduced. The result is an improved level of indoor air quality for occupants and improved system hygiene.

The ultraviolet (UV-C) radiation (254 nanometers) which has been proven effective in arresting microorganisms such as viruses, bacteria, yeast and fungus. This process either destroys the micro-organism DNA or neutralizes its ability to reproduce



DGRH-ETI -A



DGRH-ETI -B

Model	Net Weight	Cabinet Size L*W*H (MM)	Power Supply	UV tube Qty (PCS)	UV length (MM)	Total Power (W)	Lamp life span (hours)	Operational hours (hours)	Airflow (CMH)
DGRH-ETI-A01	1.4KG	160*290*85	220V 50-60Hz	1	300	50	13000	8000-9000	1500
DGRH-ETI-A02	1.5KG	160*290*85	220V 50-60Hz	1	450	80	13000	8000-9000	3000
DGRH-ETI-B01	1.8KG	200*290*85	220V 50-60Hz	2	300	100	13000	8000-9000	1500
DGRH-ETI-B02	2KG	200*290*85	220V 50-60Hz	2	450	160	13000	8000-9000	3000

UV/Ozone in cooking ducts

(This is ozone option - 185 nanometers . Standard HVAC UV lamps are ozone free models)

Control of grease, smoke and odour in commercial kitchens from cooking processes.

Installed in kitchen extraction ductwork in conjunction with filters, UV/Ozone lamps clean the exhaust ducts and hood interior for improved hygiene and reduced cleaning.

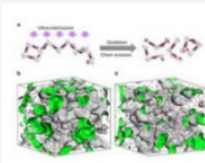
Destroys cooking odour, keeps ductwork almost grease free, reduces fire risk, reduces ductwork cleaning to a minimum and is completely automatic in operation.

### TEST RESULTS:

Test Organisms	Test groups	Average number of positive controls (cfu/pcs)	Average number of testing groups (cfu/pcs)	Killing rate (%)	Sterilization logarithm
<i>Escherichia coli</i> 8099	1	$4.3 \times 10^6$	$1.2 \times 10^2$	99.91	4.55
	2	$4.5 \times 10^6$	$1.4 \times 10^2$	99.99	4.50
	3	$4.4 \times 10^6$	$1.3 \times 10^2$	99.99	4.53
<i>Staphylococcus aureus</i> ATCC 6538	1	$4.7 \times 10^6$	$1.9 \times 10^2$	99.99	4.39
	2	$4.9 \times 10^6$	$2.2 \times 10^2$	99.99	4.35
	3	$4.8 \times 10^6$	$1.8 \times 10^2$	99.99	4.42
<i>Candida albicans</i> ATCC 10231	1	$1.6 \times 10^6$	$1.0 \times 10^2$	99.99	4.20
	2	$1.8 \times 10^6$	$1.1 \times 10^2$	99.99	4.22
	3	$1.6 \times 10^6$	90	99.99	4.25

# ULTRAVIOLET STERILIZER

## MORE Details



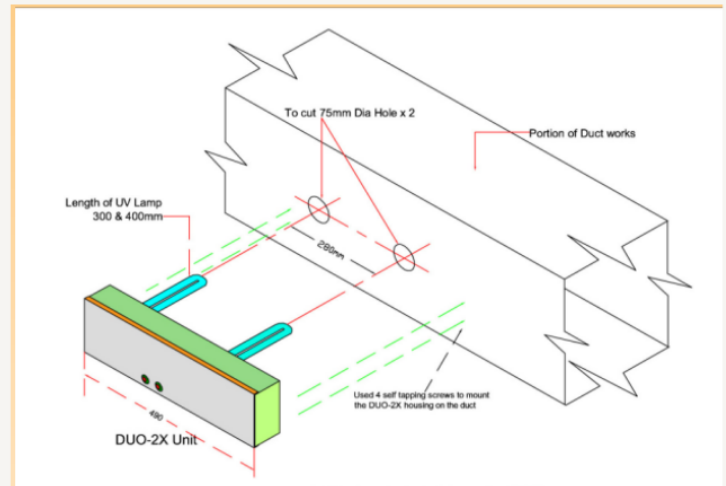
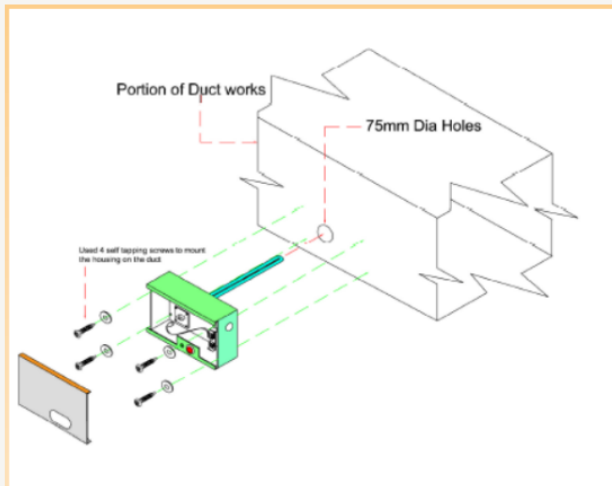
**Photolysis**  
Organic grease molecules are susceptible to UV-C wave (254nm) radiation. After chemical reaction, they become water and powder.  
 $O_2 + HV \rightarrow 2O_3$ ,  $H_2O + HV \rightarrow OH + H$  →  $OH + H_2O$ . VOC molecules are decomposed.



When exposing microorganisms to UV light, the light penetrates through their cell wall and disrupts the structure of their DNA molecules, prohibiting reproduction.

**BACTERIA**      **MOLD**      **VIRUSES**      **ALLERGENS**

## Application Example



## Features

UV-C light irradiates duct, coil & air handler interior  
High output UV-C lamp  
99.9% surface disinfection **GUARANTEED** Sterilizes mold, bacteria, viruses  
Disinfects coil & drain pan  
Improves HVAC system efficiency  
Improves indoor air quality.

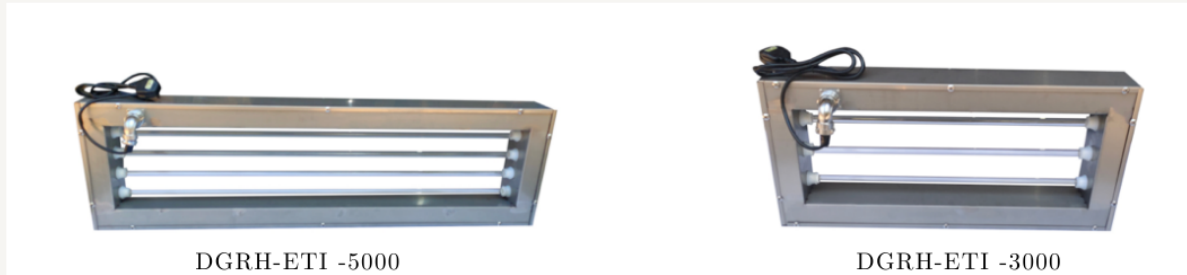
## Benefits

Easy installation, low maintenance, cost effective  
Extends lifespan of HVAC air system  
Break DNA of bacteria, mold, viruses and kill them  
Saving energy by cleaner air system  
Reduces worker exposure to dangerous chemicals

# UVI-GREEN HOOD EDITION

## DGRH-ETI Series

This product is designed to help remove the cooking smell and grease.



DGRH-ETI -5000

DGRH-ETI -3000

## Specifications

Model	Net Weight	Cabinet Size L*W*H (MM)	Airflow(CMH)	UV tube Qty (PCS)	UV length (MM)	Total Power (W)	Lamp life span (hours)	Operational hours (hours)
DGRH-ETI-5000	1.4KG	1220 X 220 X 100	5000	4	300	400	13000	8000-9000
DGRH-ETI-3000	1.5KG	610X 220 X 100	3000	3	450	180	13000	8000-9000

## Application

UV/Ozone

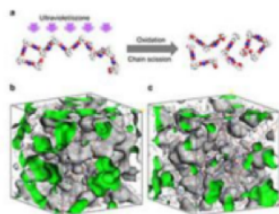
(This is UVC lamp have 254 and 185 nanometers .)

Control of grease, smoke and odour in commercial kitchens from cooking processes .

Installed in kitchen extraction ductwork in conjunction with filters, UV/Ozone lamps clean the exhaust ducts and hood interior for improved hygiene and reduced cleaning.

Destroys cooking odour, keeps ductwork almost grease free, reduces fire risk, reduces ductwork cleaning to a minimum and is completely automatic in operation.

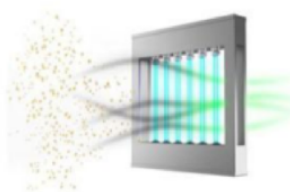
## Working Principle



### Photolysis

Organic grease molecules are susceptible to UV-C wave (254nm) radiation. After chemical reaction, they become water and powder.

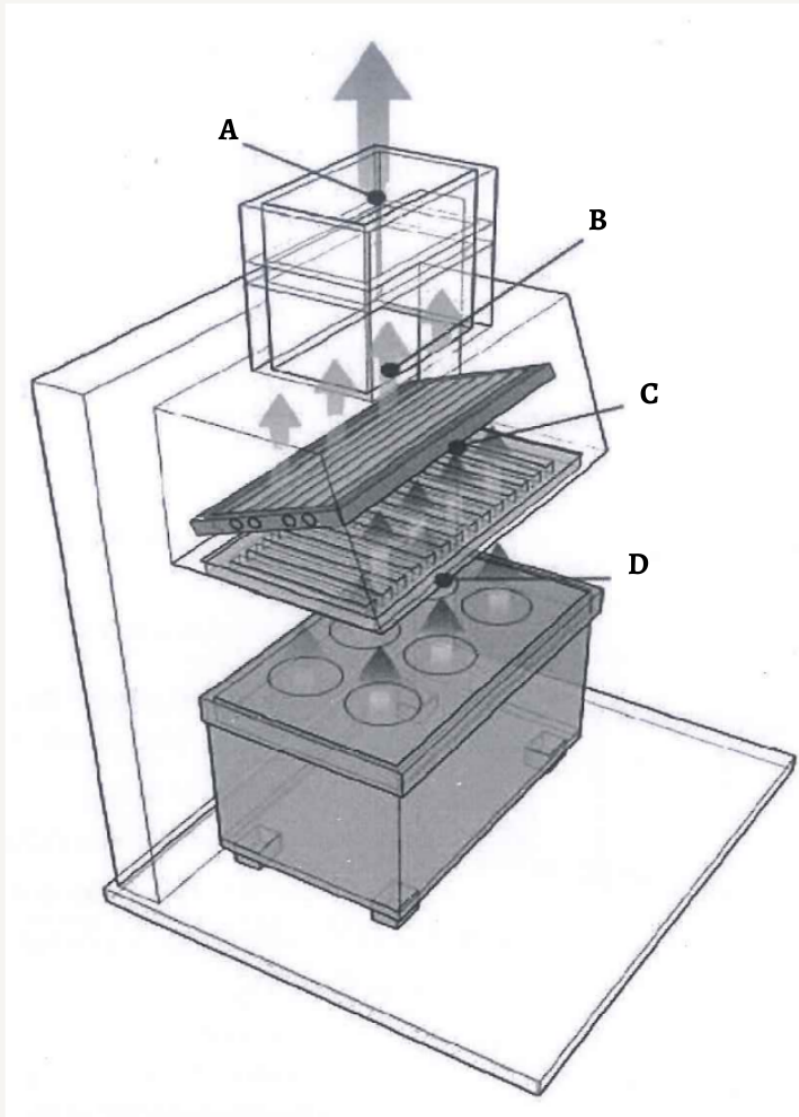
$O_2 + HV \rightarrow 2O_3$ ,  $H_2O + HV \rightarrow OH + H \rightarrow OH + H_2O$ . VOC molecules are decomposed.



### Ozone effect

UV ray (185nm) reacts with oxygen in the air to form ozone. Ozone oxidizes organic odor molecules to become water, carbon dioxide and small amounts of powder.

# UVI-GREEN HOOD EDITION



Installation Layout:

- A - Exhaust Duct
- B - Exhaust Hood
- C - UVi-Green Component
- D - Exhaust Hood Filter



## Advantage:

- \*Install and Service easy
- \*Low power
- \*Well remove the smell and grease

