



ភី អេច អេស អេស៊ី ខ្យល់ដីខ្ចី

PHS ASIA Co., Ltd



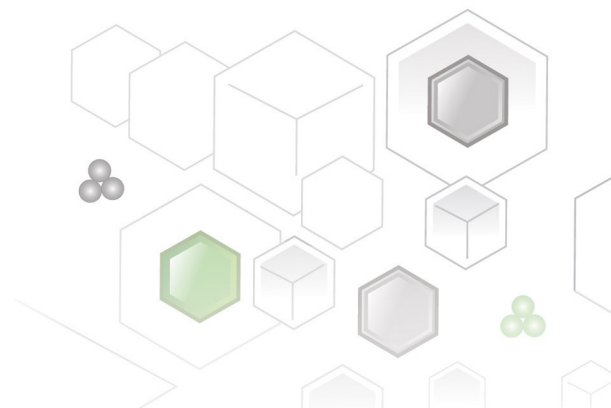
BIOZONE[®]
SCIENTIFIC INTERNATIONAL

PROFESSIONAL

Innovative Kitchen Concept



O *dour*
G *rease*
R *emoval Series*



Principle of BioZone OGR Series



OGR (Odour and Grease Removal) Series has been designed for commercial kitchen exhaust system, to efficiently decompose oil and grease and other chemical contaminants, as well as unpleasant odours during the cooking process.

The OGR device operates using two simultaneous actions. Grease molecules, like fatty acids, are directly broken down by the photons generated by the OGR. Meanwhile, PhotoPlasma™, which is carried with the airflow through the exhaust duct, continuously decomposes other organic pollutants including PAHs and VOCs, as well as odour, then converting them into harmless by-products.



Control Equipment

Advantages

Disadvantages

Grease Filters

- Simple installation and operation
- Easy to clean and maintain

- Low removal efficiency
- Requires constant cleaning

Electrostatic Precipitators

- High removal efficiency
- Collects dust and fine particles

- Without auto-cleaning system, it requires constant cleaning
- Cannot remove odour
- Potential fire risk
- High voltage hazards
- Generates secondary pollution

Hydrovents

- Simple installation and operation
- Easy to clean and maintain

- Low removal efficiency, especially for small oil droplets
- Potential fire risk
- Generates secondary pollution

Water Scrubbers

- High removal efficiency for oil and odour, if appropriate scrubbing agent is used

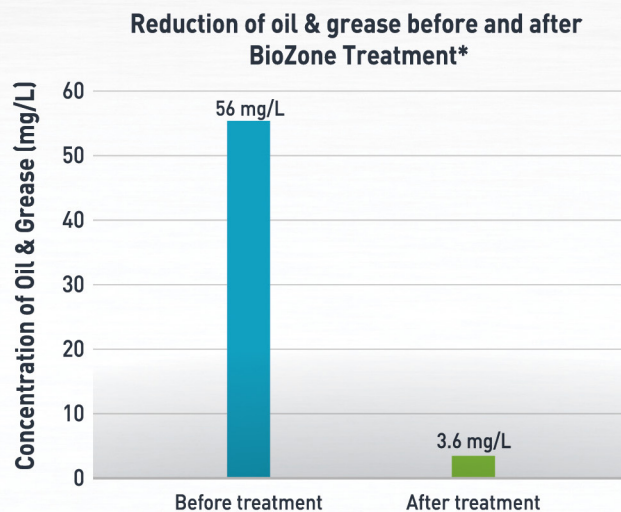
- Occupies more space
- High pressure drop
- Generates waste water and secondary odour
- Generates excessive noise

Performance Analysis of OGR Series



Case Study

A large-scale food production centre released large amount of cooking odour and fumes from the exhaust system. OGR Device was installed and glass plates were placed inside the exhaust system for collecting oil and grease passing through.



* Validation reports are prepared by SGS Hong Kong Limited.

Also, the odour intensity of cooking exhaust was greatly reduced by olfactory assessment.

Performance Analysis of OGR Series

Performance Test

Performance test for oil mist removal efficiency for BioZone OGR device (3 sets of OGR, 1m) in exhaust hood was done using PRC National Standard "Emission Standard of Cooking Fume" GB18483-2001 and Test Regulation for Cooking Fume Control Equipment HJ/T62-2001.

Results*

Trial	Sampling Location	Results (mg/dscm) [#]	Removal Efficiency (%)
1	Inlet	70.1	91.9
	Outlet	5.70	
2	Inlet	86.5	95.0
	Outlet	4.31	

* Test report is prepared by CMA Testing and Certification Laboratories.

[#] Dscm, means dry standard cubic meter, which is corrected to temperature of 273 K and a pressure of 101.3 kilopascals (1 atm).

Competitive Features of OGR Series

- High removal efficiency of oil and grease, significantly reduces duct cleaning
- Minimizes fire hazards, prevent combustible residues accumulating within the kitchen exhaust system and exhaust duct.
- Capable of removing biological, chemical contaminants, residues and unpleasant odours
- Environment-friendly, no secondary contamination
- Low pressure drop and noise nuisance
- Energy saving
- Easy to install, operate and maintain



Nominal Specifications

OGR Series (Basic Hood System)

Model:	10-S28100	10-S40100	10-S60100
Air Flow Rate* (CMH):	1,100	1,500	2,300
Electrical Power (W):	145	207	320
Electrical Current (A):	2.1	2.1	2.1
Lamp Length (mm):	700	1,000	1,554
Lamp Diameter (mm):	19	19	19
Operating Temperature:	0-100°C	0-100°C	0-100°C
Lamp Life:	10,000 hours	10,000 hours	10,000 hours

* Calculation based on typical Western commercial kitchens

BioZone OGR Modular Ductwork System (MDS)

Model:	MDS44	MDS64	MDS94	MDS66	MDS96
Dimension L x W x H (mm):	1120 x 470 x 480	1120 x 470 x 680	1120 x 470 x 1030	1620 x 470 x 680	1620 x 470 x 1030
Lamp Model:	BSI-OGR10-40	BSI-OGR10-40	BSI-OGR10-40	BSI-OGR10-60	BSI-OGR10-60
No. of Lamp:	2-3	4-6	7-10	4-6	7-10
Air Flow Rate* (CMH):	2,000-5,000	6,000-10,000	11,000-16,000	9,600-14,400	16,800-24,000
Electrical Power (W):	420-630	840-1,260	1,470-2,100	1,280-1,920	2,240-3,200
Electrical Current (A):	4.2-6.3	8.4-12.6	14.7-21.0	8.4-12.6	14.7-21.0

* Calculation based on typical Western commercial kitchens



MDS64



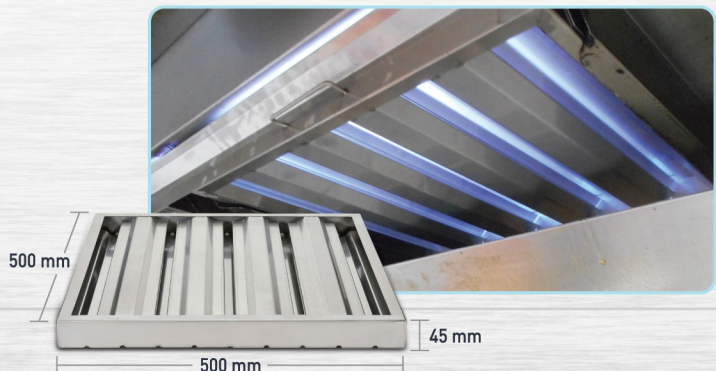
MDS94

Grease Filter for OGR Series

Dimension L x W x H (mm):	500 x 500 x 45
Pressure Drop:	758.7 Pa

Validation report is prepared by an accredited third party laboratory; pressure drop is measured at air flow 5 m/s.

This grease filter is specially designed for kitchen hoods that are equipped with OGR Series. It protects people working under the kitchen hoods from UV radiation exposure.



ភីអេស អេស អេស៊ី ឧស្សាហកម្ម

PHS ASIA Co., Ltd

YOUR SOLUTION PARTNER

- Chemicals
- Kitchen Equipment
- Room Linen and Towel
- Room Amenities & Spa
- Cleaning Tools
- F&B Service Equipment
- In-Room Equipment
- Hotel Lock, Safety Box, Minibar Telephone
- Hospitality Consultation