GREENCRYSTAL has & continues to play a pivotal role in the Design, Innovation & maintenance of HVAC products. GC’s solutions for Restaurant pollution has seen increase in efficiencies, low maintenance costs & longevity of the units. We aspire to inspire.

Director of Operations
Precise Restaurant Ventilation

Design ♦ Products ♦ Management ♦ Installation ♦ Commissioning ♦ Maintenance

Corporate Profile

❖ About Green Crystal

❖ About ESP {AOM, Sirius}

❖ About {Filters}

❖ About Plasma Clean

❖ Customers & Projects Reference List

Green Crystal Ventilators and Air Filters Trading LLC
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Business Bay, Dubai UAE
P.O. Box 390799
Tel: +971 4428661
E-mail: info@greencrystal.ae
Web: www.greencrystal.ae
VISION

One Company, one Team, One Vision

Together we are dedicated to continuous improvement to ensure that we exceed the expectations of our customers, our team members and our community.

MISSION

Our Company is dedicated to delivering clean air solutions for commercially operated kitchens with tailored design systems, fabrication, installation and maintenance.

We pride ourselves on our expertise, innovation, professionalism in our work standards enabling us to meet our customer’s expectations for quality, service and ingenuity. We value all members of our team and are committed to providing opportunities for each employee to reach their full potential in an environmentally changing world.

Our Services Mainly focus the Restaurant industry and they include HVAC, Mechanical & Electrical Equipment. Green Crystal provides its clients with a full compliment of services including engineering at the design stage, quotations, purchasing and assistance in financing, export packing and shipment, follow up training, maintenance and after sales service. Furthermore, to successfully do so the company’s staff has a broad basis of scientific and technical knowledge to draw on.

Green Crystal’s Engineers, Service Technicians and Personnel have years of practical experience in various filed, backed by quality education from some of the world prestigious universities. Their experience coupled with fluency in Arabic, English and other languages assures our clients the utmost efficiency, accuracy and confidence in handling and servicing multi phase projects regardless of size. Green Crystal’s full staffed service department provides the required maintenance; services and engineering solution to trouble shoot problems during start up, commissioning or normal operation. All of our service Engineers and Technicians has been trained on different products and equipment that we supply. Our large stock of spare parts coupled with experienced service technical, available tools and facilities enable Green Crystal to attend to a service call promptly.
ABOUT US:

GREEN CRYSTAL is a well-diversified trading company specialising in Restaurant Ventilation with our headquarters based in central Dubai, United Arab Emirates. Our core business is the design and delivery for total kitchen ventilation solutions with our clients among the emirate’s market leading property developers, hotel groups and restaurants.

With our strong relationship and joint partnership with leading manufacturers in Europe, we the have capability to design, import, supply and distributing kitchen ventilation equipment. Our solution to restaurant Pollution is based around the Sirius ESP delivering a complete ecology system. Our manufacturers deliver the highest quality and best performing ESP (Electrostatic Precipitator). To supplement this, we offer Odour Neutralizers, Carbon Filtration Systems, Kitchen Exhaust Fans, UV odour controls and kitchen hoods together with touch screen app based control systems. Our in house UK technical team, design and project manage installations. We can provide complete peace of mind with technical submittals, support and commissioning to ensure your restaurant is not only designed correctly and compliant to local codes and standards, but continues to operate at the highest level for years to come.

GREEN CRYSTAL has an excellent partnership in association with leading companies such as SIRIUS CVL LLC, a company wholly owned by our manufacturers, The Chapman Ventilation group of companies based in the UK and who is also the leading HVAC design and build Contractor in the United Kingdom. Sirius manufacturers provide cutting edge products, innovative designs, technical expertise, reliability and market leading technology.

Dr. Neil Verner Ph. D (Inventor of SIRIUS ESP)
1- ELECTROSTATIC PRECIPITATOR {ESP}
AOM EAN Electrostatic Precipitators
High efficiency smoke and grease filtration equipment

Removes up to 98% of commercial kitchen exhaust grease and smoke particles in the duct
AOM EAN Electrostatic Precipitators are high efficient air filtration devices which are certified by the University of Sydney to remove up to 98% of commercial cooking grease and smoke particles.

Proven technology for commercial kitchen exhaust filtration
Electrostatic precipitators are widely used internationally to treat commercial kitchen exhaust. Made of materials compliant to AS 1530, they fully meet the requirements of AS1668.2-2012 and allow for the design of non-compliant discharge points.

Durable design and low maintenance
The EAN-units are engineered to operate for long hour heavy duty cooking environment and require comparatively minimal service maintenance for the high level filtration efficiency that they achieve.

Solution for limited space in the duct
The arrangement of AOM EAN Electrostatic Precipitator units is flexible. They can be stacked or be placed side by side in a double pass formation to achieve even higher filtration efficiencies if required.

Features
The AOM EAN Electrostatic Precipitators come equipped with prefilters, electrostatic cells and BMS connection points. The units can be coupled either with AOM Ozone Generators or Carbon Modules to ensure odour mitigation in the exhaust.

Key Clients
Hurricanes have retrofitted tenancies with the EAN units to ensure high efficiency filtration of their exhaust
AOM EAN electrostatic precipitators are preferred equipment for Hungry Jack’s tenancies
## Technical Data

<table>
<thead>
<tr>
<th>EAN Model</th>
<th>EAN 200</th>
<th>EAN 300</th>
<th>EAN 400</th>
<th>EAN 600</th>
</tr>
</thead>
<tbody>
<tr>
<td>Weight (kg)</td>
<td>60 kg</td>
<td>75 kg</td>
<td>90 kg</td>
<td>120 kg</td>
</tr>
<tr>
<td>Airflow (L/s)</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Maximum airflow for:</td>
<td>up to 945 L/s depending on the situation</td>
<td>up to 1415 L/s depending on the situation</td>
<td>up to 1890 L/s depending on the situation</td>
<td>up to 2800 L/s depending on the situation</td>
</tr>
<tr>
<td>Type 3, Type 6 or light Type 4 cooking</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Recommended airflow for: heavy Type 4 or Type 5 cooking</td>
<td>470 L/s (speed through filter 2.2 m/s, efficiency 97%)</td>
<td>725 L/s (speed through filter 2.25 m/s, efficiency 97%)</td>
<td>1000 L/s (speed through filter 2.25 m/s, efficiency 97%)</td>
<td>1500 L/s (speed through filter 2.2 m/s, efficiency 97%)</td>
</tr>
<tr>
<td>Size (mm)</td>
<td>690 L x 550 w x 650 h</td>
<td>530 L x 930 w x 650 h</td>
<td>1170 L x 550 w x 650 h</td>
<td>1640 L x 550 w x 650 h</td>
</tr>
<tr>
<td>Exhaust outlet/inlet(mm)</td>
<td>480 w x 400 h</td>
<td>660 w x 480 h</td>
<td>930 w x 500 h</td>
<td>1340 w x 480 h</td>
</tr>
<tr>
<td>Number of cells</td>
<td>1 cell</td>
<td>1 cell</td>
<td>2 cells</td>
<td>3 cells</td>
</tr>
<tr>
<td>Size of cells (mm)</td>
<td>470 L x 325 w x 465 h</td>
<td>300 L x 700 w x 455 h</td>
<td>470 L x 325 w x 465 h</td>
<td>470 L x 325 w x 465 h</td>
</tr>
<tr>
<td>Housing material</td>
<td>Powder-Coated Galvanized Steel (2.0 mm)</td>
<td>Aluminium Alloy (Thickness: 1.0 mm)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electrostatic cell</td>
<td>Aluminium (II) Oxide</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation material</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Testing</td>
<td>Efficiency of &gt;95% kitchen exhaust grease and smoke particle</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Voltage Power Pack</td>
<td>High Voltage 14,000 V / Low Voltage 7,000 V</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power supply</td>
<td>220–240 V / 1P / 50-60Hz</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power consumption</td>
<td>70 - 140 Watt</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resistance (clean)</td>
<td>25 – 50 pa depending on the speed though the filter</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

### Installation Options

**Single Pass Filtration**
- Single pass unit installed outdoors with a protective weather cover

**Stacked**
- EAN stacked configurations for higher airflows (EAN 600T, 800, 1200)

**Double Pass Filtration**
- High contaminant exhaust &/or sensitive discharge point requires very high filtration efficiency
Electrostatic precipitation consists of three distinct stages. Firstly, grease and smoke particles in the air stream are negatively charged by central cathode needles. This causes the charged particles to migrate towards the surrounding cylindrical anode collection tubes, where they settle and form a film. Our ESP system also generates ozone to effectively eliminate odours from kitchen emissions, the only ESP on the market today that can deal with odour too. Here at Sirius Products, we are continuously improving our products to ensure that they are the most effective and efficient pieces of equipment on the market today.

features

A SIRIUS ESP features several technological advancements, all of which contribute to increased efficiency and reduced environmental impact:

- The cathode needles are positioned centrally within the cylindrical anode collectors. This ensures a constant, focused and improved ionisation field.
- Typically existing ESP technology only allows for an inlet velocity of 3-4 m/s. Sirius ESP can handle four times that. Our units can be handled velocities up to 15 m/s with no detrimental effect on performance.
- In contrast to other filtration units, Sirius ESP only applies energy to the contaminants, resulting in a very small initial rise in pressure.
- Superior mechanical strength enables the unit to withstand cleaning and maintenance.
- A flow-balancing plate removes large particles and encourages even airflow across the cells, thereby increasing efficiency.
- Working with a limited number of UK suppliers, we have now solved one of the major problems that have been consistent across all ESPs until now: the need to swap out cells as part of a monthly cleaning cycle. We have developed a technique that allows us to clean cells on site there and then, without having to remove and replace them.
- Our systems now generate ozone to eliminate odours from kitchen emissions.

maintenance

With no moving parts, an ESP requires very little active maintenance. However, we do recommend a regular cleaning routine in order to ensure that your ESP is performing at its optimum efficiency. Each module features a clear, illuminated display that indicates when a service is required. For the most part, servicing is simple. The filter cells are thoroughly cleaned and degreased on site, with no cell removal or replacement required. Sirius engineers then disassemble and clean the cells to ensure that they are clean and ready for service.

Grease, smoke, moisture, gases and vapour; these particles constitute the cooking plume. Typically, they vary in size from 30 microns to sub-microns, from combined grease and moisture to inhaled molecules. The graph opposite demonstrates the effectiveness of the Sirius ESP system. Electrostatic precipitation is up to 95% effective at eliminating the particles within the blue shaded area, which includes odours, grease and smoke.

Introducing the new SIRIUS range of high performance electrostatic precipitators esp plus 2015

Sirius Products, 15-20 Woodfield Road, Welwyn, AL7 1JQ.
Tel: 01707 299339   E-mail: info@siriusproducts.co.uk
www.siriusproducts.co.uk

Our technology

Grease, smoke, moisture, gases and vapour: these particles constitute the cooking plume. Typically, they vary in size from 30 microns to sub-microns, from combined grease and moisture to inhaled molecules. The graph opposite demonstrates the effectiveness of the Sirius ESP system. Electrostatic precipitation is up to 95% effective at eliminating the particles within the blue shaded area, which includes odours, grease and smoke.
Maximum efficiency, minimum space: SIRIUS’ Electrostatic Precipitator (ESP) is the most sustainable and efficient way of removing grease and smoke from kitchen emissions.

why electrostatic precipitation?
It’s simple. Because an ESP provides the highest level of efficiency available today. Up to 95% in fact. Gone are the days of costly, space-consuming and non-recyclable filters that send tonnes of waste to landfill every year. Instead, electrostatic precipitation offers a truly sustainable and low maintenance option. It uses an electrostatic charge targeted specifically at grease and smoke particles to remove these contaminants from the air stream, causing them to form a film inside the ESP unit. Here at Sirius, we use high-efficiency vapour blast cabinets to remove this film. Using only ten litres of water and 6 volts of electricity, this is a simple step towards environmental sustainability. Plus, as all cleaning takes place on site, you don’t have to worry about it, it’s cheaper and quicker. No fuss, no bother, no interruptions.

the modular design
SIRIUS specialises in creating bespoke integrated solutions. That’s why our robust ESP units can be configured to accommodate any air flow, and provides unrivalled filtration of grease and odours. A totally sustainable, total solution.

Product Code | Description | Dimensions | Pressure Drop | Weight
--- | --- | --- | --- | ---
SP-ESP 24S | 2.4 m³/s (8640 m³/h) | 2040L x 850W x 810H | 380Pa | 244kg
SP-ESP 72 | 7.2 m³/s (25,908 m³/h) | 3060L x 850W x 1620H | 540Pa | 732kg
SP-ESP 48 | 4.8 m³/s (17,200 m³/h) | 2040L x 850W x 1620H | 460Pa | 488kg
SP-ESP 24P | 2.4 m³/s (8640 m³/h) | 1020L x 850W x 1620H | 380Pa | 244kg
SP-ESP 12 | 1.2 m³/s (4320 m³/h) | 1020L x 850W x 810H | 330Pa | 122kg

The above dimensions are just a guide. Full dimension drawings are available on request. Due to constant product development, specifications and design may be subject to change without notice. Alternative air volume selections are available. Please contact us directly for more information.
Maximum efficiency, minimum space: SIRIUS’ Electrostatic Precipitator (ESP) is the most sustainable and efficient way of removing grease and smoke from kitchen emissions.

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It’s simple. Because an ESP provides the highest level of efficiency available today. Up to 95% in fact. Gone are the days of costly, space consuming and non-recyclable filters that send tonnes of waste to landfill every year. Instead, electrostatic precipitation offers a truly sustainable and low maintenance option. It uses an electrostatic charge targeted specifically at grease and smoke particles to remove these contaminants from the air stream, causing them to form a film inside the ESP unit. Here at Sirius, we use high-efficiency vapour blast cabinets to remove this film. Using only ten litres of water and 6 volts of electricity, this is a simple step towards environmental sustainability. Plus, as all cleaning takes place on site, you don’t have to worry about it, it’s cheaper and quicker. No fuss, no bother, no interruptions.

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2- CANOPIES (KITCHEN HOOD)
AOM HCU Series Kitchen Exhaust Hood

High performance low velocity kitchen exhaust hoods for Cost-effective grease and odour control

Certified to Australian Standard
AOM HC series hoods have been certified to Australian Standards (AS1668.2-2012) and are designed to be the most efficient, cost effective and sustainable solutions for kitchen exhaust air collection and treatment.

Equipped with Stainless Steel Honeycomb filters
AOM stainless steel honeycomb filters have also been certified to meet AS1530, methods for fire tests on building materials, components and structures and Part 1-1994: Combustibility Test for Materials. The filters are UL 1046 rated.

Equipped with innovative UV technology
AOM range of UV filtration hoods allowing for grease filtration using Heraeus 185 nm German designed ozone generating UV light tubes, which will also aid in the mitigation of odour discharge.

Custom-made to suit the project’s needs
With a network of manufacturers covering Australia and New Zealand, AOM HCU series hoods are manufactured locally and custom-made to meet the requirements for each individual commercial cooking line.

Features
The AOM HCU Series hoods are suitable for a standard low to moderately contaminated cooking process type. The hoods are equipped with AOM honeycomb filters, Heraus UV cassettes, LED lights, exhaust and supply dampers for make up air.

Key Clients

Grill’d Health Burgers has AOM HC Series hoods as preferred supplier of their full range of kitchen exhaust hoods.

AOM recently equipped the new Marriott hotel, Momi Bay Fiji with all their commercial kitchen hood requirements.
- exhaust air damper
- UV cassette
- supply air damper
- stainless steel honeycomb filter
- LED light
**AOM HCFO Series Kitchen Exhaust Hood**

High performance low velocity kitchen exhaust hoods for the high efficiency filtration of grease and smoke as well as optimal odour mitigation, for heavy cooking

**Technical Data**

**Hood Models**
- **HCFO**: Standard wall-mounted exhaust hood with single pass electrostatic filters, ozone generators and air supply plenum.
- **HCF**: Standard wall-mounted exhaust hood with electrostatic filters and air supply plenum.
- **HCPFO**: Standard wall-mounted exhaust hood with double pass electrostatic filters, ozone generators and air supply plenum.

All hood models available in low profile (V) design, as well as island configuration (I).

**Standard Specifications**

<table>
<thead>
<tr>
<th>Dimensions (mm)</th>
<th>Length</th>
<th>Based on the requirements of Australia Standards AS1668.2-2012 and using the additional experience of AOM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width*</td>
<td></td>
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<tr>
<td>Height**</td>
<td></td>
<td>Based on the available space and the floor to ceiling to slab dimensions</td>
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</tbody>
</table>

**Airflow (l/s)**
- **Exhaust**: Based on the requirements of Australia Standards AS1668.2-2012 section 3.6 and German Standard VDI 2052.
- **Supply**: In hood Make Up Air supply generally fixed at 60% of exhaust airflow.

**Material**: Stainless steel 304 No.4 at 1.2mm thickness.

**Pressure drop (clean)**
- **Exhaust**: 75 pa
- **Supply**: 45 pa

**Potential extras**: Scroll fans for make up air supply

AOM INTAIR

*The width range for HCFO & HCVFO: 1350mm-1900mm; HCIFO & HCVIFO: 2400mm-3600mm

**The height range for HCFO & HCIFO: 700mm-1000mm; HCVFO & HCVIFO: 500mm-650mm
AOM HCE Series Kitchen Exhaust Hood

High performance low velocity kitchen exhaust hoods

Technical Data

Hood Models

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCE</td>
<td>Standard wall-mounted exhaust hood with air supply plenum</td>
</tr>
<tr>
<td>HCVE</td>
<td>Low profile wall-mounted exhaust hood with air supply plenum</td>
</tr>
<tr>
<td>HCIE</td>
<td>Standard island configuration exhaust hood with air supply plenum</td>
</tr>
<tr>
<td>HCIVE</td>
<td>Low profile island configuration exhaust hood with air supply plenum</td>
</tr>
</tbody>
</table>

Standard Specifications

<table>
<thead>
<tr>
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</table>

Airflow (l/s)

<table>
<thead>
<tr>
<th>Type</th>
<th>Exhaust</th>
<th>Based on the requirements of Australia Standards AS1668.2-2012 section 3.6 and German Standard VDI 2052</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Supply</td>
<td>In hood Make Up Air supply generally fixed at 60% of exhaust airflow</td>
</tr>
</tbody>
</table>

Material

Stainless steel 304 No.4 at 1.2mm thickness

Pressure drop (clean)

<table>
<thead>
<tr>
<th>Type</th>
<th>Exhaust</th>
<th>75 pa</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Supply</td>
<td>45 pa</td>
</tr>
</tbody>
</table>

Potential extras

Scroll fans for make up air supply
EAN units
Ozone Generators

* The width range for HCE & HCVE: 1200mm-1900mm; HCIE & HCIVE: 1900mm-3600mm
** The height range for HCE & HCIE: 700mm-1000mm; HCVE & HCIVE: 400mm-650mm
Introducing the new range of Capture and Containment Air (CCA) canopies from SIRIUS.
Sirius’ Canopy Containment Air (CCA) canopies have been designed specifically to enhance the removal of cooking fumes and heat from the commercial kitchen environment.

**Our canopies feature:**
- CCA technology to reduce air-flow and exhaust rates, minimise air-spillage and increase overall efficiency.
- Unique 3-chamber NVX filters for exceptional filtration of grease and other particles.
- Perforated front plates to deliver a constant supply of clean, fresh air directly into the workplace for a comfortable environment that is conducive to creativity.
- Stratified supply air distributes cool air across the entire workplace.
- Seamless, fully-welded stainless-steel construction for improved hygiene and a high-specification finish.
- Integrated supply and extract systems to allow you positive control of your ventilation system.
- Low-energy fluorescent triphosphor lighting included as standard.
- Fully removable light fitting for safe and easy maintenance access.

### Design

<table>
<thead>
<tr>
<th>FUNCTION</th>
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<tr>
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</table>
Specifications and model identification

Our CCA canopies can be manufactured to suit almost any site and specification. They are available in two standard heights and widths, and variable lengths as detailed below.

**Height:** 400 or 555mm  
**Depth:** Minimum 1200mm  
**Length:** As required. Minimum length 1000mm.

CCA Canopies are available with extract only, or integrated extract and supply air.

Product codes

- **CCA:** Canopy Containment Air  
- **CCA-A:** extract only  
- **CCA-S:** extract and supply air  
- **E:** number of extract spigots  
- **C:** circular  
- **R:** rectangular  
- **S:** number of supply spigots

**Example:**  
CCA-S – 555(height) x 1300(width) x 2500(length) – E3R – S3
The canopies below are examples of our product range. Because each and every canopy we make is unique, all of the products below can be made to a wide variety of sizes and specifications. Please speak to your Sirius Products point of contact for more detailed information.

The above dimensions are just a guide. Full dimensional drawings available on request. Due to constant product development, specifications and design may be subject to change without notice.
3- AIR FILTERS
Our range of efficient PROpleat S panel filters, all tested to EN 779:2012, offer consistent performance and provide high indoor air quality, making a better working environment. The innovative design of the PROpleat S, with its self-supporting pleats and larger surface area, means a longer service life; saving you time, energy and money.

Choose PROpleat S panel filters for high indoor air quality.

THE KEY BENEFITS

1. **High indoor air quality**
   The non-shedding polyester material helps to provide high indoor air quality.

2. **Longer service life**
   Thanks to the design of the PROpleat S frame, 98% of the face of the filter is used, enabling optimum performance. With 50% more surface area you’ll get a greater dust holding capacity, giving an even longer service life and reducing the number of changes required.

3. **Energy saving**
   The larger dust holding capacity and lower pressure drop over the life of the filter increases efficiency. This reduces the direct energy required to run the units, thereby reducing CO₂ emissions and running costs.

4. **Innovative Design**
   Made from a non-shedding polyester material, with self-supporting pleats and no metal mesh. The PROpleat S filters are fully incinerable, making them a more environmentally friendly option.
Carbon Compact Carbon Filters

Our range of environmentally-friendly activated Carbon Compact F7 filters, can be directly installed in existing filter housings with no modification required. Highly effective at removing problematic gases and odours from the air creating a cleaner, safer environment. They are ideal in mixed use city centre applications, museums, libraries and airports.

Choose Activated Carbon Compact Filters for purer air in demanding environments.

THE KEY BENEFITS

1. **Ease of installation**
   - Can be installed without expensive modifications to existing filter housings achieving odours/gas removal and F7 filtration in one product. Lightweight, easy to handle and install compared to standard discarbs.

2. **Longer service life**
   - The compact V shaped configuration creates a large carbon surface area giving optimal odour removal, this coupled with a high final pressure drop across the filters gives a long service life.

3. **Environmentally friendly**
   - Carbon Compact filters are fully incinerable eliminating the need to go to landfill.
Standard & High Capacity HEPA Filters

E10 – H14 All tested according to EN 1822

Our range of Standard and High Capacity high-efficiency particulate air (HEPA) filters deliver the superior air quality demanded by highly controlled clean room environments, removing 99.97% of particles down to a sub-micron level of 0.3 microns. Rigorously tested and manufactured to the highest commercial standards, they’re used extensively in the medical, pharmaceutical and micro-tech industries.

Choose Standard and High Capacity HEPA Filters for exceptionally clean indoor air.

THE KEY BENEFITS

1 Superior air quality
   Our HEPA filters force air through a fine mesh of micro glass fibres, removing pollutants and allergens for superior indoor air that meets the stringent clean room regulations.

2 Efficient
   The high efficiency of our filters is guaranteed by EN 1822 certification.

3 Versatile
   Our HEPA filters are available in a range of standard and high capacities to meet all industrial and commercial clean room requirements.

Filter classes

Particle sizes (not true to scale)

E10 – H14 All tested according to EN 1822
Compact Rigid
Compact Filters

M5 - M9 All tested according to EN 779:2012

Our range of efficient, environmentally-friendly Compact Rigid V-Filters can be directly installed in existing filter housings with no modification required. Tested according to EN 779:2012, they offer outstanding performance and high indoor air quality. They are ideal for use in hospitals, pharmaceutical and food industries as well as office environments and computer centres.

Choose Compact Rigid Filters for outstanding indoor air quality.

THE KEY BENEFITS

1. High air quality
   The high performance non-shedding synthetic media promotes high indoor air quality.

2. Environmentally Friendly
   The compact V shaped configuration creates a large surface area giving a high dust holding capacity. This coupled with a high final pressure drop across the filters gives a long service life, saving time, energy and money.

3. Longer service life
   Compact Rigid filters are fully incinerable and easy to dispose without the need to go to landfill.
4- KLEANZON CATALOG
The compact and lightweight units have been designed for modern kitchens, where space is at a premium, and are an ideal solution for fast food bars, pubs and restaurants.

KLEANZONE utilise cold plasma technology to naturally cleanse and disinfect the air. The process works through the intense ionisation of air molecules which react with gaseous odour molecules and micro-organisms.

Simple to install, with low maintenance and running costs, this versatile modular solution provides affordable and reliable odour control in one unit, making it the perfect partner for a wide range of cooking applications.

### KLEANZONE Product Specification

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Model</td>
<td>KLEANZONE</td>
</tr>
<tr>
<td>Capacity</td>
<td>Up to 12 m³/s</td>
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<tr>
<td>Power</td>
<td>160W</td>
</tr>
<tr>
<td>Pressure Drop (Pa)</td>
<td>0 (ozone injection)</td>
</tr>
<tr>
<td>Supply</td>
<td>230Vac / 1 phase / 50Hz</td>
</tr>
<tr>
<td>Dimensions</td>
<td>307H x 343W x 180D mm</td>
</tr>
<tr>
<td>Weight</td>
<td>10kg</td>
</tr>
<tr>
<td>Safety</td>
<td>Curcuit breaker 5A required</td>
</tr>
<tr>
<td></td>
<td>Air flow proving switch installed</td>
</tr>
<tr>
<td></td>
<td>Fan power supply interlock</td>
</tr>
<tr>
<td>Operation</td>
<td>Fully automatic</td>
</tr>
</tbody>
</table>

The compact and lightweight units have been designed for modern kitchens, where space is at a premium, and are an ideal solution for fast food bars, pubs and restaurants.

### KLEANZONE versus conventional odour control solutions

- Low capital and running costs
- Simple installation and maintenance
- No consumable chemicals
- Compact, lightweight and robust
- Quiet operation
- Environmentally friendly
- Tested to EN13725:2003
KLEANZONE is an ioniser designed for the treatment of odour-laden and infected air. The ions produced by the reactor are injected into the plenum box or ductwork close to the source of the odour / contamination. KLEANZONE injects ozone into the kitchen extraction canopy where it reacts with odour. These are oxidized in a chemical reaction which results in the production of carbon dioxide and water vapour. The ozone itself is consumed during the process and is converted back into oxygen.

Compact and Lightweight
The unit has been designed to be compact 307mm (H) x 343mm (W) x 180mm (D) and lightweight (10kg) so that it can be installed in kitchen areas where space is at a premium and / or where there is little load bearing capacity.

Installation
The unit has been designed to attach to the wall adjacent to the kitchen canopy. The outlet is then connected into the kitchen canopy and the unit is plugged in or hardwired into mains electricity (230V / single phase / 50Hz) via a main fan control box. Full installation and operating instructions are provided.

Silent Operation
The unit sits outside of the kitchen extraction canopy and ozone is drawn into the kitchen canopy by the existing fans. There is no need to upgrade the existing fan and the unit operates silently.

Servicing
Plasma Clean recommends a yearly service to ensure efficient operation, and can offer a planned maintenance contract.

Additional Options
A fan can be fitted in the unlikely event that the kitchen extraction fan can not draw air through the unit. A site survey option is available, as is a planned maintenance contract.

Any questions?
Contact one of our engineers who will be at hand to advise on the most appropriate odour control solution.

Email: ask@plasma-clean.com
Tel: +44 (0)161 443 4125

KLEANZONE
Fan
Optional carbon filter to destroy residual ozone
Overhead canopy

- Ozone
- Oxygen
- Grease, smoke & odour

Plasma Clean is continuously improving its products and services and reserves the right to alter designs without prior notice.
Model: KLEAN ZONE ioniser / ozone injection unit for odour control applications

Purpose: Oxidation using ozone and activated oxygen ions is used to treat odour emissions from commercial and industrial kitchen processes (DEFRA, 2005: Guidance on the Control of Odour and Noise from Commercial Kitchen Exhaust Systems). The unit has been specifically designed for use in commercial kitchens. The system injects ozone into the kitchen extraction canopy or ductwork where it reacts with odours. The ozone itself is consumed during the process and is converted back into oxygen.

It is recommended to locate the units with an injection point located closest to the source of odours in order to maximize dwell time. In any case the dwell time must be no less than 2 seconds. The system is powered via a fused spur which is to be interconnected to air flow or the main extraction fan control to ensure that the unit(s) only operate when the main fan is operating.

Note: the unit is designed for gaseous odour control and will have little effect on airborne grease and no effect on smoke. Please ensure that adequate grease and smoke control is installed upstream from the unit.

Features & Benefits:
- Compact, lightweight and quiet operation
- Quick and easy low cost installation
- Low capital and running costs
- Ozone injection – adding negligible back pressure to the system so requiring less energy to push air through the air handling system. This means less ductwork modifications
- The ozone tubes have a long life and maintain efficiency as they remain outside of the air stream
- Tested to EN13725:2003

Dimensions: 307H x 343W x 180D mm

Control lights: Air Flow and Service LED indicators

Technical Data:
- Capacity max. up to 1.0 m³/s OR 1,000 LPS (litres per second)
- Volume flow rate through unit 80 m³/hr
- Pre-filtration grade G4
- Supply 230Vac / 1 phase / 50Hz
- Power 160W
- Weight 10kg
- Pressure drop N/A (ozone injection)
- Safety Internal flow switch
  Recommended interlock to fan control

General: Multiple units can be used together for increased volume or efficiency

Finish: Grade 304 stainless steel

Accessories: Installation kit
- Remote monitor

Delivery: Stock item

Approvals: Plasma Clean air cleaners comply with current CE requirements and EMC standards. Certificates are available on request.

Warranty: One year manufacturer’s warranty. Terms and conditions apply. Optional maintenance packages available, sold separately.
5- CUSTOMERS & REFERENCES
Just some of our clients…

P.F. Chang's
Coya
Tom's Kitchen
JJ Chicken
Café Coffee Day
Dahab Restaurant Cafe
The Atlantic
Dubai

It's finger lickin' good