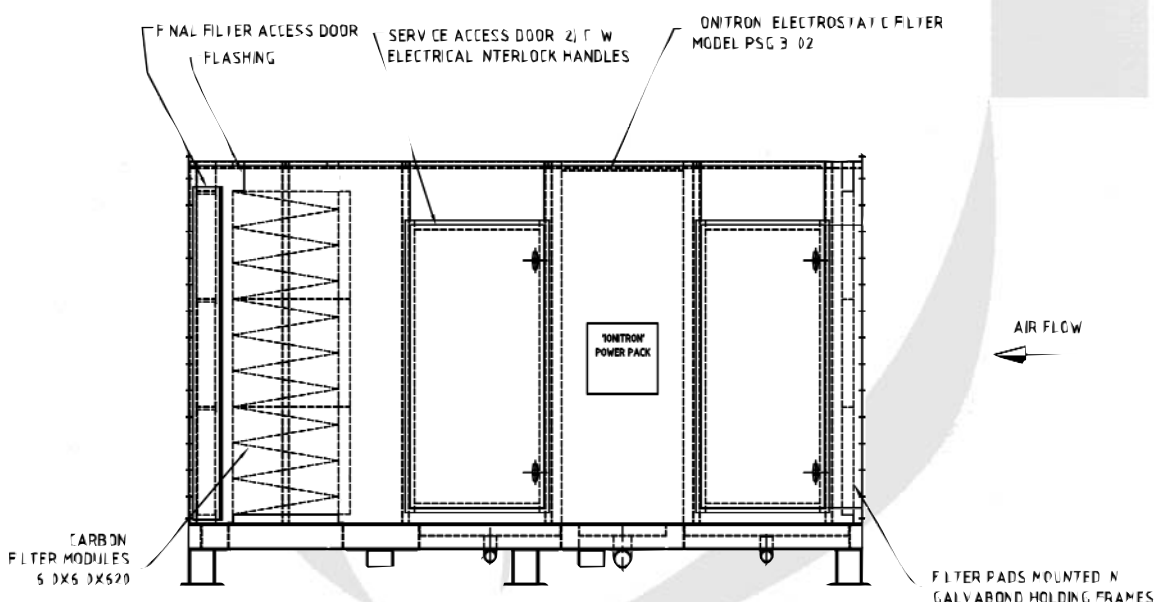


## Electrostatic Kitchen Exhaust Modules



### Applications

AES Environmental Electrostatic kitchen exhaust modules (EKEM) have been designed specifically for the high efficiency removal of particulate and odour from commercial kitchen exhaust systems, enabling the treated air to be discharged without concern.

The combination of the proven performance of the Email Ionitron electrostatic filters and the Email Carbosorb cells guarantee's savings on long-term building maintenance.

### Principle of operation

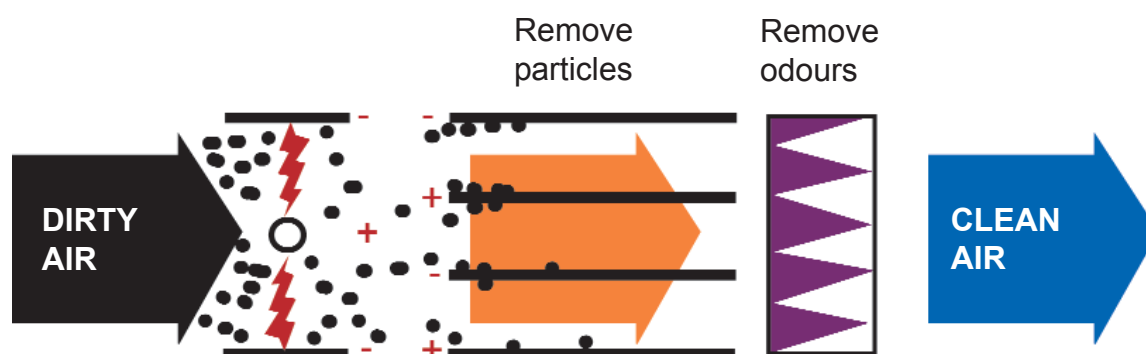
Electrostatic kitchen exhaust modules consist of two major parts - the Ionitron wash-down electrostatic air filter and Carbosorb Type B activated carbon cells.

Pre-filtered air enters through the ionizer, which consists of a number of fine tungsten wires suspended between flat ground electrodes.

A strong electrostatic field is set-up between the wires and ground plates by a 13kV DC supply from the power pack.

The field is sufficiently strong to charge every particle which then passes through the collector cell which has parallel plates alternatively charged to 6.5kV DC by the power pack. The charged particles are attached to the plates where they are held by a special adhesive coating.

Model Number	Rated Air Flow L/s	No. of Carbon Modules	Ionitron Unit Model No.	Dimensions (mm) H x W x L
1502-KE2020	3776	4	PSG2020	1450 x 1900 x 3900
1502-KE2002	5664	6	PSG2002	2050 x 1900 x 3900
1502-KE3002	8496	9	PSG3002	2050 x 2500 x 3900
1502-KE3003	11328	12	PSG3003	2700 x 2500 x 3900



This clean air then passes through a fixed panel activated carbon Carbosorb cell with a number of galvanised steel trays in a staggered fashion to ensure no air bypass, low resistance to airflow and maximum exposure and contact time with the activated carbon granules. These trays are easily removed for maintenance.

### How to specify

Filter unit shall be AES Environmental Electrostatic Kitchen Exhaust Modules. Unit model number (select from table) with a rated airflow of (refer table) L/s. Unit and replacement media and cells shall be manufactured in Australia.

### Maintenance

At regular intervals, determined by local exhaust concentrations, the collector cells reach their holding capacity. The Ionitron filter must then be cleaned by flushing the ionizer and collector cells with water and allowing to dry before a fresh coat of adhesive is applied.

The activated carbon granules will also require replacement at regular intervals, determined by the type and concentration of odour.


### Performance

The normal initial operating resistance of an EKEM is 330Pa at rated capacity. The Ionitron, when tested to AS1132, gives an efficiency of 87% to No.1 test dust.

The Carbosorb cell contains 65kg of activated carbon granules with a retentivity of 65% by carbon tetrachloride test.

### Addresses

**Sydney:** Tel 9618 4100 Fax 9618 4144  
**Address:** 19 Saggartfield Road Minto NSW 2566  
**Email:** Sales@aesenvironmental.com.au

 [www.aesenvironmental.com.au](http://www.aesenvironmental.com.au)



**National Tel. Hotline 1300 550 116**

**National Fax 1300 550 117**

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