Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional

KING SERIES

Electrostatic Precipitator Smoke & Grease Eliminator

UK (ESP+UVC): oily, greasy, smoky,

Give Our Next Generation A Clean Environment Odour & smell problem



KING Series for
Restaurant,Kitchens and Industrial Plants

K-400 **E-700** **UV-K600**



KING SERIES - K & E MODEL (WITHOUT BLOWER)

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Airwave Electrostatic Air Cleaners help businesses control the pollution so that employees have a better and healthier working environment. A clean working environment will generate lots of goodwill among neighboring businesses and residences.

Airwave Electrostatic Air Cleaners can be easily configured and incorporated into various types of exhaust systems for various businesses like restaurants, kitchens,exhaust ,workshop,CNC machine shops, factories etc. For collection of dry and wet particulates such as cooking fumes, grease, dust, oil mist, powder etc.

Features and Benefits of KING Series (ESP) Air Cleaner

. Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector). Full Effective collection area in special design electronic cell with "saw type" Ionizer for fullest high voltage trasfer.

. Light weight of cell make for easier handling (12kg)

. Modular design allow unit to be joined together for higher efficiency and added capacity.

. Easy access to pre-filters and electronic cells from access opening for servicing.

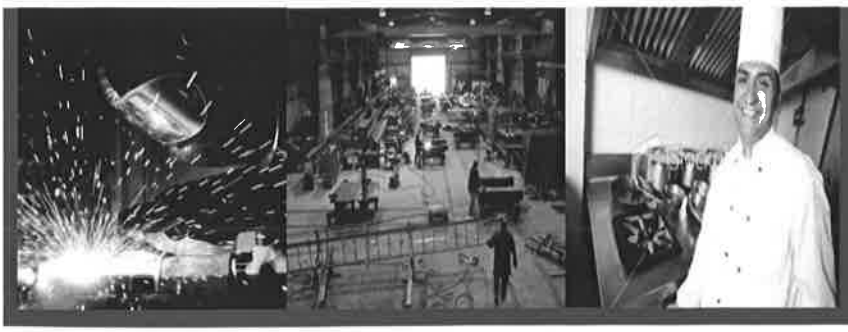
. System can be interlock with build in BMS interface terminals to monitor unit's performance.

. Filtration Efficiency - 97% base on ASHRAE 52.1, meets NIOSH 5026 Oil Mist Test capture particles size as small as 0.01 microns.

. Safty Features - Acess Door open power Automatic cut off.

. Solid state, self regulating power supply that maintains peak efficiency during a wide area of cell loading occurs with arc protection.

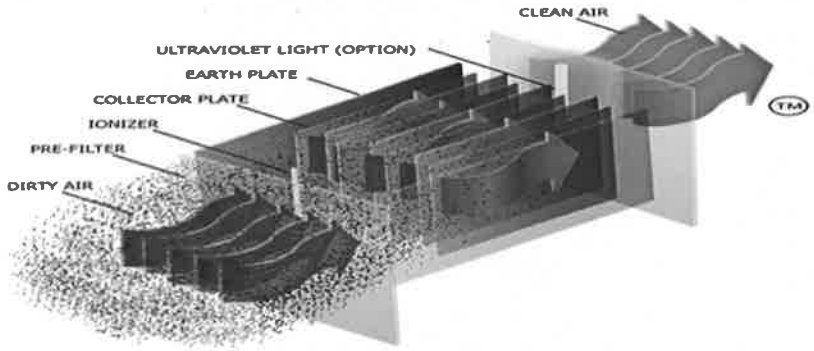
. Particle Size - Effectivness from as small as 0.01 microns to 100 microns and above.



KING Series

Electrostatic Precipitator (ESP) Air Cleaner

How KING Series (ESP) Air Cleaner works for your Restaurants, Kitchens and Industrial Plants



The fan blower first draws in contaminated air through a washable pre-filter, which traps larger particles.

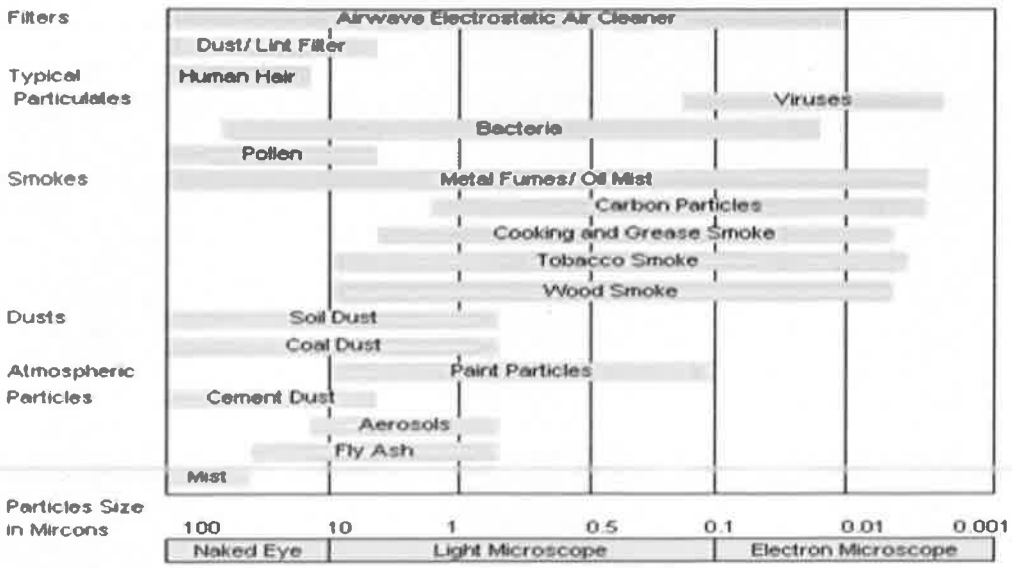
Smaller particles as small as 0.01 micron passes through a strong electrical field (ionizing section) where the particles receive an electrical charge.

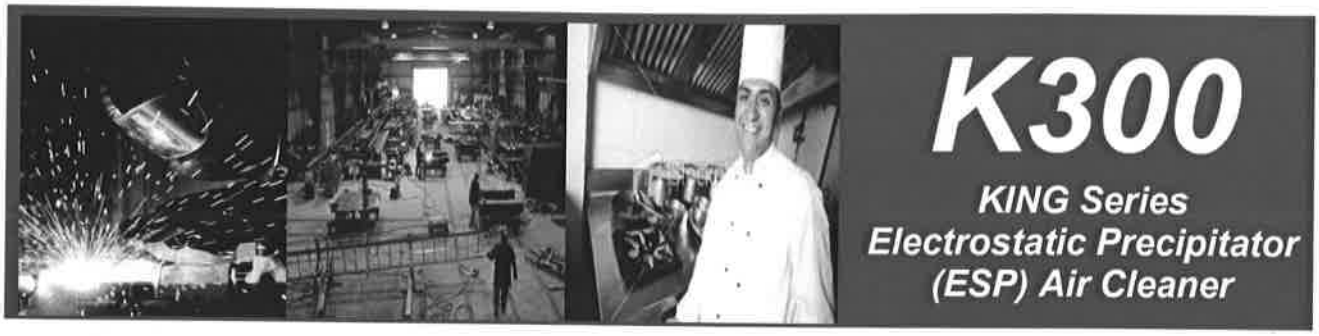
The charged particles then pass into a collector plate section made up of a series of collecting plates equally spaced 7mm apart.

Each alternate plate is charged with the same polarity as the particles, which repel, while the interleaving plates are grounded, which attract and collect the contaminants.

KING Series (ESP) Air Cleaners traps both wet and dry particles. The particles are held in these plates until they are washed away.

Range of Pollutions





Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional

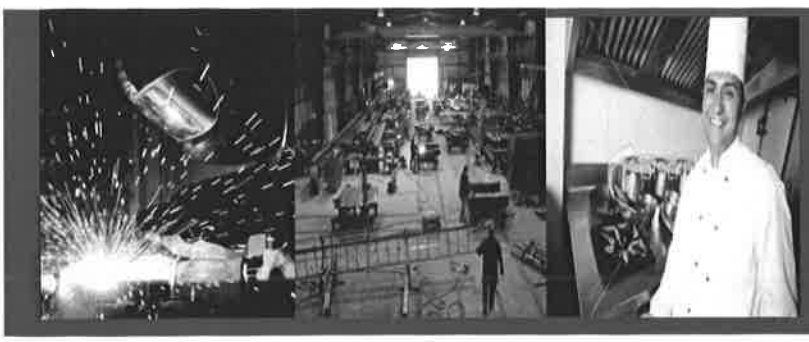


Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	Model K300
Air Volume (CMH) :	3000
Dimension(LxWxH)(mm):	570 x 605 x 650
Flange Size:	400 x 480
Weight (KG):	60kg
Quantity of cell:	1
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	50



K400

KING Series
Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®
Clean Air Professional



Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's Performance

Specifications:

Model:	Model K400
Air Volume (CMH) :	4000
Dimension(LxWxH)(mm):	570 x 840 x 650
Flange Size:	600 x 430
Weight (KG):	70kg
Quantity of cell:	1
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	60



K600

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional



Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	Model K600
Air Volume (CMH) :	**6000**
Dimension(LxWxH)(mm):	**570 x 1090 x 650**
Flange Size:	**880 x 480**
Weight (KG):	**82kg**
Quantity of cell:	**2**
Filtration Efficiency:	**97%**
Static Pressure drop:	**≤100 pa**
Power Supply (VAC/ph/Hz):	**220/1/50**
Power Consumption(w)	**90**



KING Series Electrostatic Precipitator (ESP) Air Cleaner

Model for easy combination of machines

Benefits & Advantages:

- Modular design allows unit to be joined together for higher efficiency and added capacity.
- All of our standard products designs are built upon the modular system concept. We build cells in 3000, 4000, 6000 CMH in size. These cells are then installed adjacently until the cumulative volume of the application is satisfied.

Specifications:

Providing Clean Indoor Air for the Nation since 1987 AIRWAVE Clean Air Professional			
Model:	K800	K1200	K2400
Air Volume (CMH) :	8000	12000	24000
Dimension(LxWxH)(mm):	570 x 840 x 1300	570 x 1090 x 1300	1140 x 1090 x 1300
Flange Size:	600 x 1070	880 x 1125	880 x 1125
Weight (KG):	150kg	165kg	328kg
Quantity of cell:	2	4	8
Filtration Efficiency:	97%	97%	97%
Static Pressure drop:	≤100 pa	≤100 pa	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50	220/1/50	220/1/50
Power Consumption(w)	120	180	360
Joined system	K400 x 2	K600 X 2	K600 X 4



Barton UVC Ozone Clean System (made in USA)

UV-K400/ UV-K600

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional



Benefits & Advantages:

- **As well as a 2 in 1 revolutionary technology (ESP+UVC) providing the best combination to Solve your oily, greasy, smoky and odour problems.**
- **UVC *(BARTON UV Technology from USA)* Ultraviolet light reduces odour and smell.**
- **UVC save tremendous cost of high replacement of charcoal filter. UVC radiation is an innovative and economical solution for oily, greasy, smoky, odour and smell problem.**

Specifications:

Model:	UV K400	UV K600
Air Volume (CMH) :	4000	6000
Dimension(LxWxH)(mm):	692 x 840 x 650	692 x 1090 x 650
Flange Size:	600 x 430	880 x 480
Weight (KG):	88kg	100kg
Quantity of cell:	1	2
Filtration Efficiency:	97%	97%
Static Pressure drop:	≤100 pa	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50	220/1/50
Power Consumption(w)	117	117
Quantity of UV light	4	4
UV power (W)	39 X 4 tubes	39 X 4 tubes

Barton UVC Ozone clean system (made in USA)



Barton exclusive Ballast (made in USA)



UV –K600 with 5 barton UVC tube (Optional)for better odour control

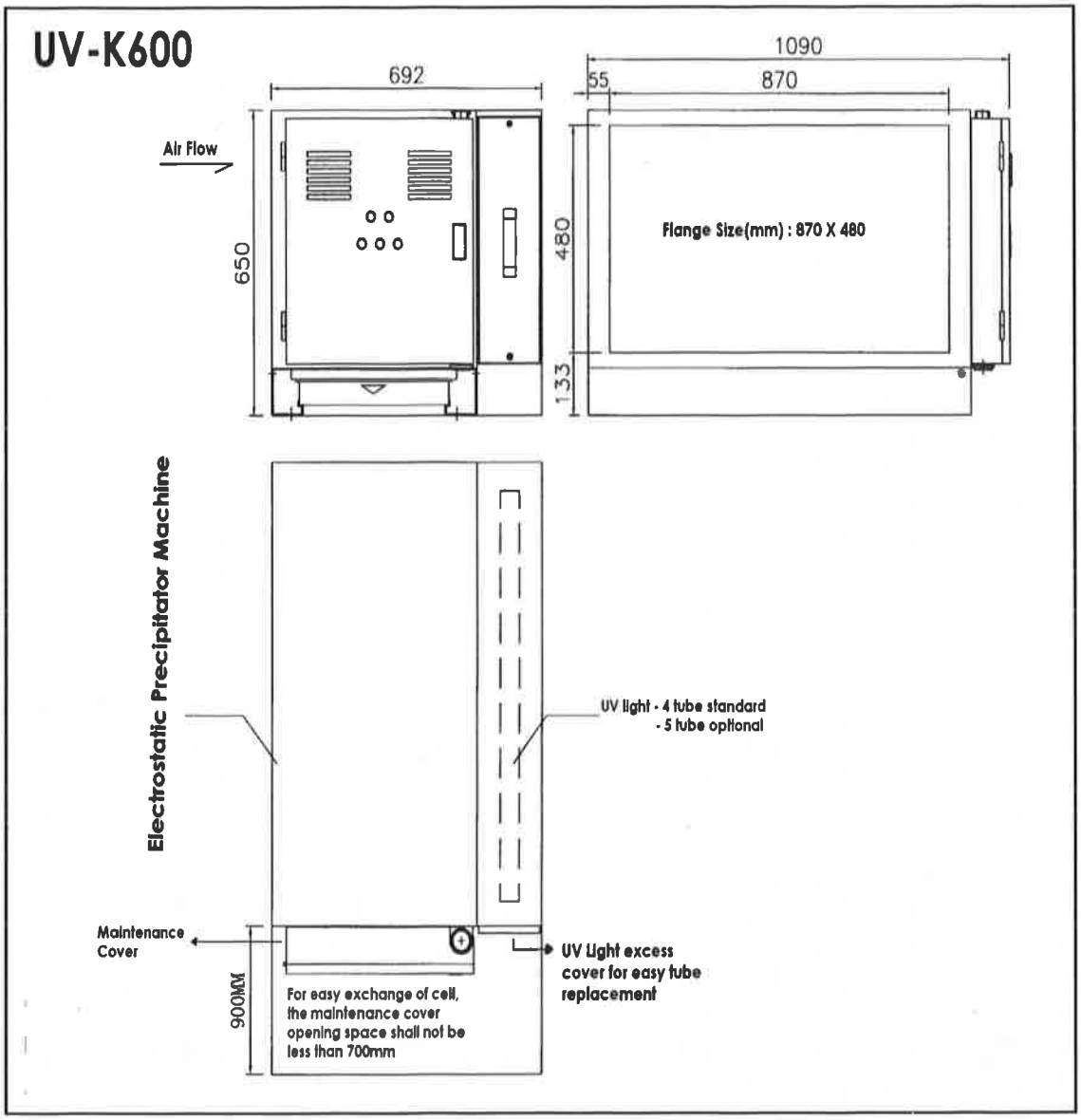




Barton UVC Ozone clean system

UV-K600 Dimension

Dimensions :



Barton UVC Ozone Clean System Specifications: (Made in USA)

Model	Lamp Type	Length	Output	Nos of Lamps	Life Span Hours
UV-K600	**Barton UVC Ozone clean system**	**860mm**	**39 Watts X 4 tubes**	**4 tubes**	**9000±**
UV-K400		**620mm**	**39 Watts X 4 tubes**	**4 tubes**	**9000±**



E 350

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional

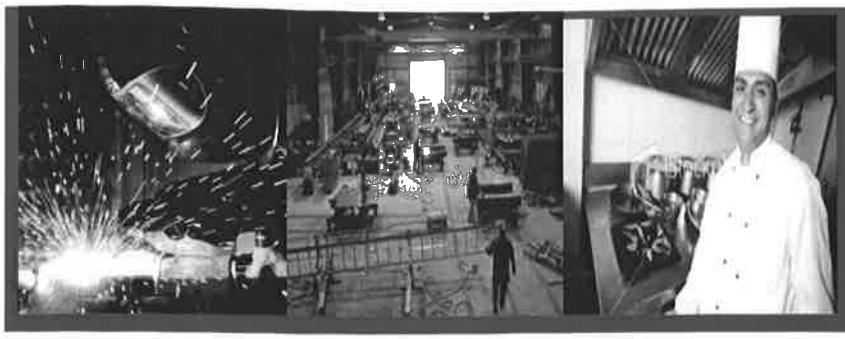


Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	E - 350
Air Volume (CMH) :	3500
Dimension(LxWxH)(mm):	520 x 615 x 650
Flange Size:	400 x 480
Weight (KG):	65kg
Quantity of cell:	1
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	60



E 700

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional

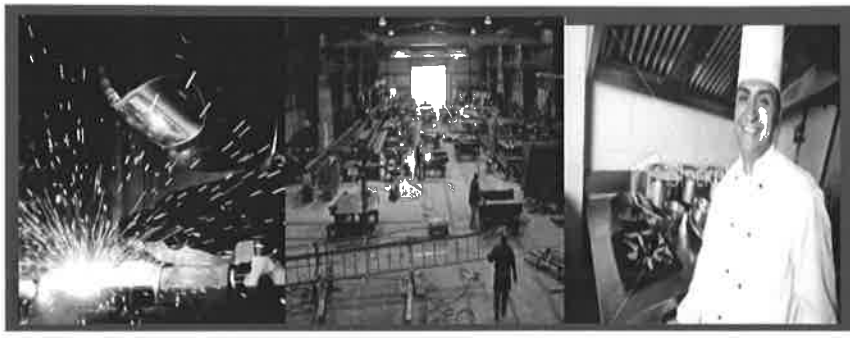


Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	E - 700
Air Volume (CMH) :	7000
Dimension(LxWxH)(mm):	570 x 1090 x 650
Flange Size:	880 x 480
Weight (KG):	90kg
Quantity of cell:	2
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	117



E 350

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional



Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	E - 350
Air Volume (CMH) :	3500
Dimension(LxWxH)(mm):	520 x 615 x 650
Flange Size:	400 x 480
Weight (KG):	65kg
Quantity of cell:	1
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	60



E 700

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional



Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	E - 700
Air Volume (CMH) :	7000
Dimension(LxWxH)(mm):	570 x 1090 x 650
Flange Size:	880 x 480
Weight (KG):	90kg
Quantity of cell:	2
Static Pressure drop:	≤100 pa
Power Supply (VAC/ph/Hz):	220/1/50
Power Consumption(w)	117



E 1000

KING Series Electrostatic Precipitator (ESP) Air Cleaner

Providing Clean Indoor Air for the Nation since 1987

AIRWAVE®

Clean Air Professional



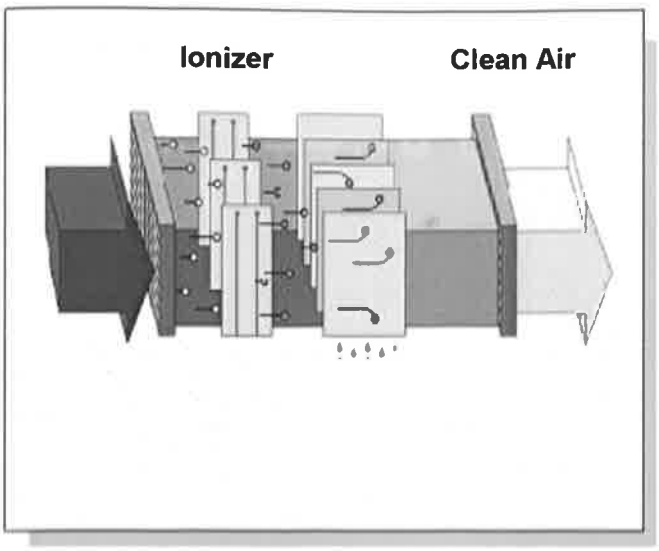
Benefits & Advantages:

- Eliminate your kitchen's oily and greasy problems
- Heavy duty electronic cell charged with 15KV DC (ionizer) and 7.5KV DC (collector)
- Light weight of cell make for easier handling
- Modular design allows unit to be joined together for higher efficiency and added capacity
- System can be interlocked with BMS interface feature to monitor unit's performance

Specifications:

Model:	E - 1000
Air Volume (CMH) :	**10000**
Dimension(LxWxH)(mm):	**570 x 1535 x 650**
Flange Size:	**1350 x 480**
Weight (KG):	**120kg**
Quantity of cell:	**3**
Static Pressure drop:	**≤100 pa**
Power Supply (VAC/ph/Hz):	**220/1/50**
Power Consumption(w)	**150**

Electrostatic Precipitation principle diagram



Major parts and components



Aluminum electronic cell



Building management control system



Oil collection tray



Power pack system

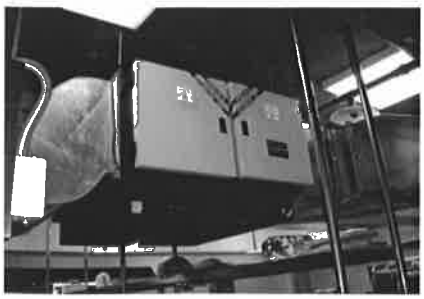
King Series Electrostatic Precipitation parts and components functionality

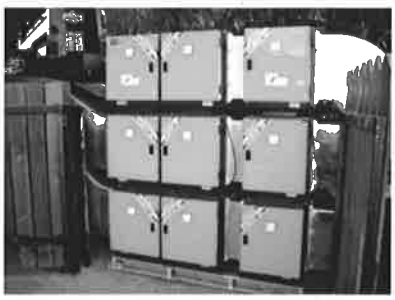
Pre-filter	Removal of large particles
Electronic cell	Efficient adsorption and filtration device
UVC ultraviolet light system (optional)	Removal of smoke odour and kill bacteria and viruses
BMS control system (optional)	Remote monitoring

Important notes:

Upon ordering of machines, please indicate direction of access door (Left or Right) to be opened and provide space allowance for door opening (500mm) to extract electronic cells for servicing.

Installation at site

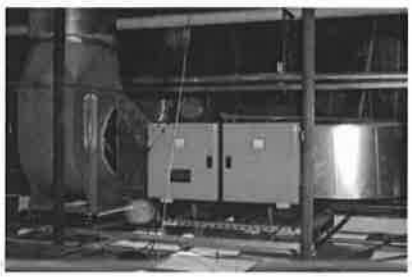


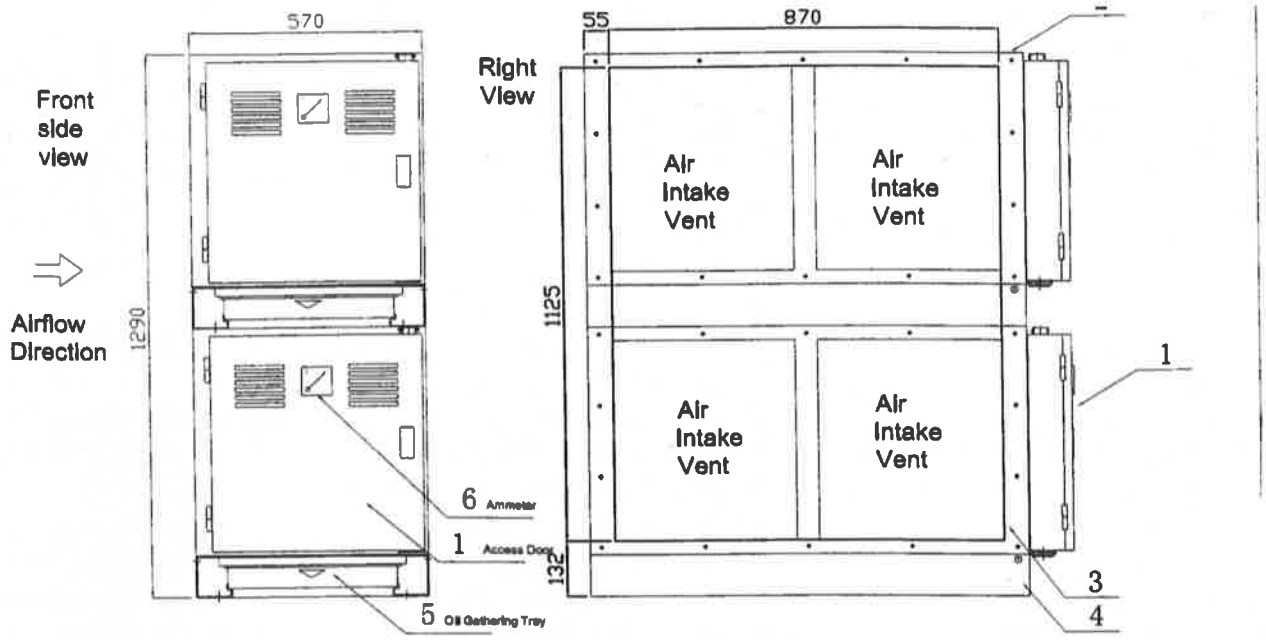


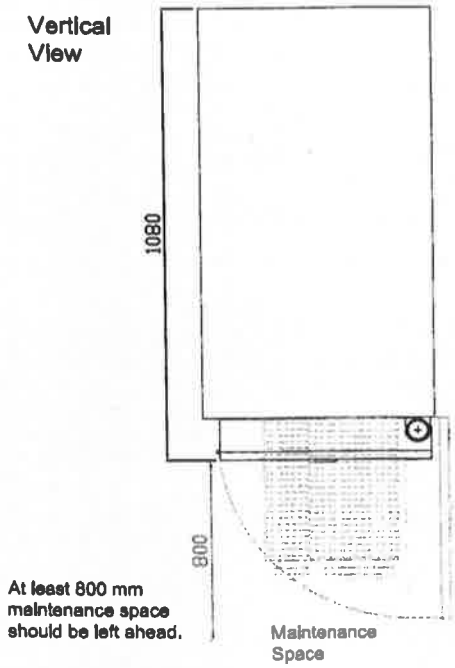






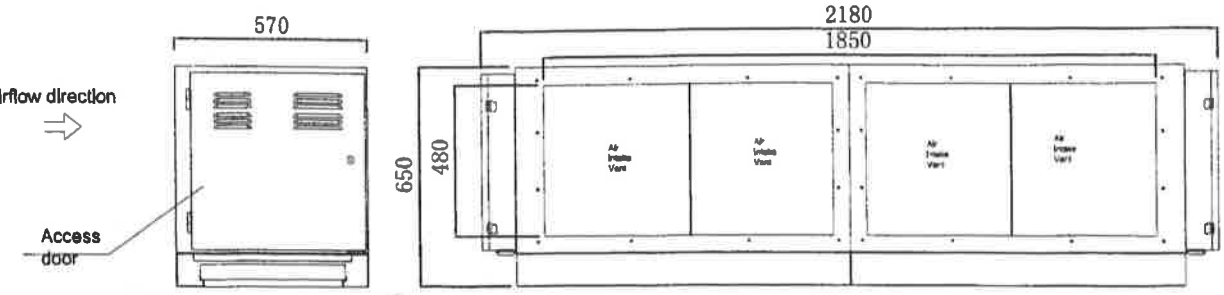






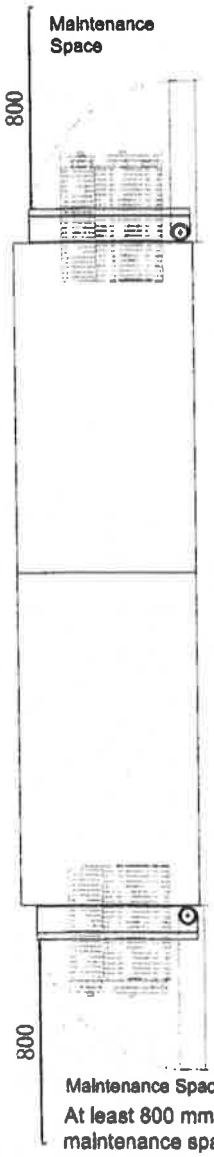
Project:		Device Parameter	Air Flow	11000CMH	Efficiency	≥95%
			Pressure Drop:	≤100 pa	Power Supply	[illegible]
Equipment series:			Weight	200Kg	Protection Class	IP 45
			Color	Blue	Air Inlet&Outlet	Adjustable

Series No.	Name	Material Specification	No.	Remarks:
1	Electrical Control Box (Access Door)	Cold-rolled Steel 1mm	2	At least 800mm maintenance space should be left before installation.
2	Cabinet	Cold-rolled Steel 1mm	2	
3	Flange		2	Inside diameter of Flange:870*1125(H) mm
4	Base	Cold-rolled Steel 2mm	2	
5	Oil Gathering Tray	Cold-rolled Steel	2	
6	2A Ammeter	220VAC	2	



Front Side View

Right View



Maintenance Space

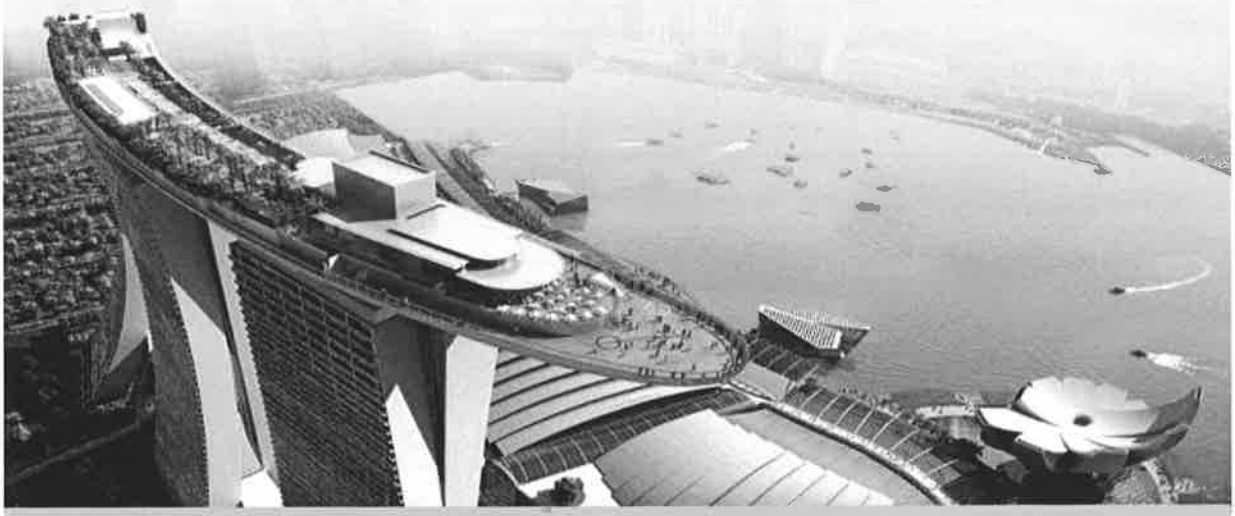
At least 800 mm maintenance space should be left ahead.

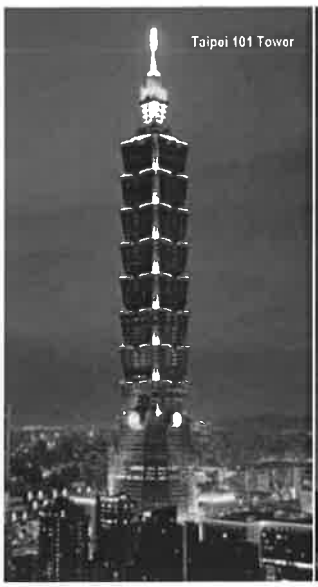
Vertical View

Project:		Device Parameter	Air Flow	14000CM/H	Efficiency	≥95%
			Pressure Drop:	≤100 pa	Power Supply	220VAC/50HZ/0.23 KW
Equipment series:			Weight	200Kg	Protection Class	IP 45
			Color	Blue	Air Inlet&Outlet	Adjustable

Series No.	Name	Material Specification	No.	Remarks:
1	Electrical Control Box (Access Door)	Cold-rolled Steel 1mm	2	At least 800mm maintenance space should be left before installation.
2	Cabinet	Cold-rolled Steel 1mm	2	
3	Flange		2	Inside diameter of Flange:1850*480(H) mm
4	Base	Cold-rolled Steel 2mm	2	
5	Oil Gathering Tray	Cold-rolled Steel	2	
6	2A Ammeter	220VAC	2	

Our most recent project at Singapore Marina Bay Sands











Airwave Pte Ltd
105 Jalan Kembangan
Singapore 419143
Tel: (65) 6743 8888
Fax: (65) 6748 7488

Email: airwave@singnet.com.sg
Web site: www.airwave.com.sg

We reserve the right to make changes without prior notice and without incurring liability.