

Verdant

Electrostatic Precipitators



UL 867
E534805



VESP Series

What is an Electrostatic Precipitator ?

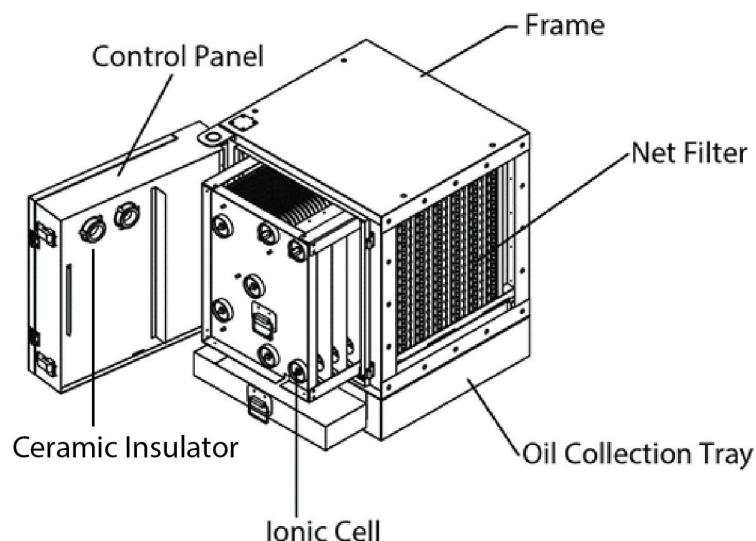
An Electrostatic Precipitator (ESP) or Electrostatic Air cleaner is device that removes suspended dust or grease particles from a gas or exhaust by applying a high-voltage electrostatic charge and collecting the particles on charged plates.

Applications of an Electrostatic Precipitator:

Verdant ESP are specially designed for kitchen extract systems, these units are particularly used to reduce oil, grease from the extract of commercial kitchens and restaurants. the duct installed ESP systems trap the smaller grease particle and other contaminants that pass the grease filters in the kitchen hood

Features :

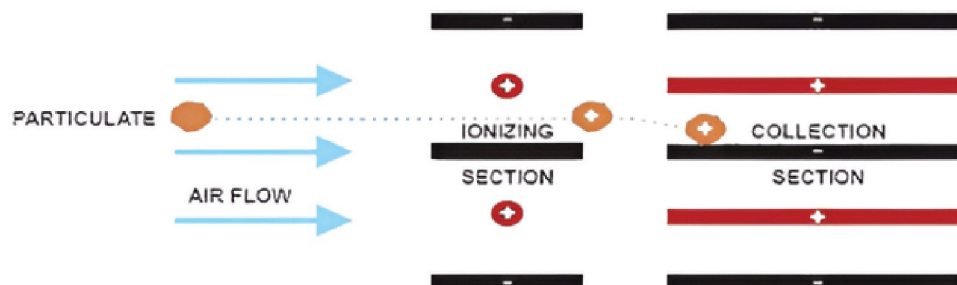
- These units are for both indoor and outdoor Applications.
- Capable of handling kitchen extract from hotel, restaurants, food processing plants.
- Unit is capable of filtering oil mist from manufacturing processes, food processing units.
- ESP Power control system adjust electric field intensity automatically.
- Long service cycles, lower power consumption.
- ESP can achieve up to 99% efficiency.
- BMS (Building Management system).
- Auto power cut - off when door is opened.



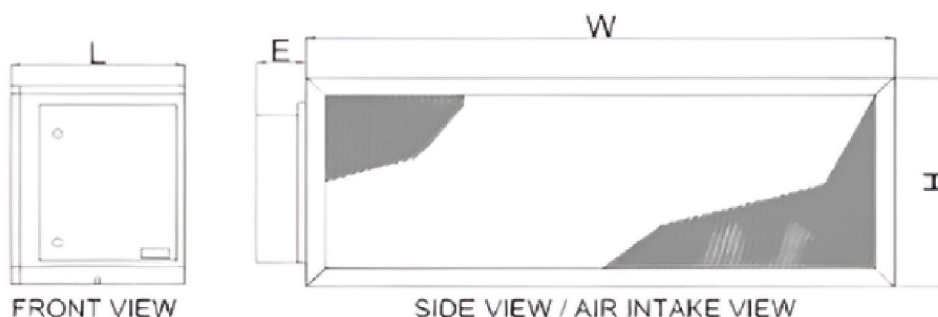
How Electrostatic filtration works ?

Electronic air cleaning systems use one or more permanent electronic collector cells or filters featuring electrostatic precipitation technology to collect and remove smoke, grease and other harmful contaminants in commercial kitchen hood exhaust. An electronic collector cell is composed of an ionizing or charging section and a collection section. Incoming contaminant particles pass through an intense ionization field in the charging section. The ionization causes the particles to lose electrons and acquire a positive electrical charge. In the collection section, positively charged metal plates or fins repel the positively charged particles, and alternating grounded fins attract the positively charged particles.

Contaminants remain trapped on the grounded fins until the collector cell is washed



Unit Dimensions





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Commercial and Residential Kitchen ESP Parameters

Parameters	VESP-4	VESP-8	VESP-12	VESP-16	VESP-20
Unit Size (W x H x L) mm	630x540x550	1090x540x550	1550x540x550	2010x540x550	2470x540x550
Power Supply (V/Ph/Hz)	220V/1Ph/50-60Hz	220V/1Ph/50-60Hz	220V/1Ph/50-60Hz	220V/1Ph/50-60Hz	220V/1Ph/50-60Hz
Related Air Volume m3/hr	4800	9600	14400	19200	24000
Efficiency (%)	Up to 99 % (As per Ashrae Standard 52.2-2.12)				
Pressure Drop (Pa)	<100				
Output Voltage	Dual Output : 12 Kv DC for Ionizer , 6 Kv DC for Collector				
Power (W)	32 – 160 W				
No. of Cells	1	2	3	4	5
Pre-Filter	Washable, Aluminum Wire mesh				
Weight	45	70	95	120	145
Installations	Installation ceiling suspended/ Wall or Frame mounted/Multiple Stacked Units				



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