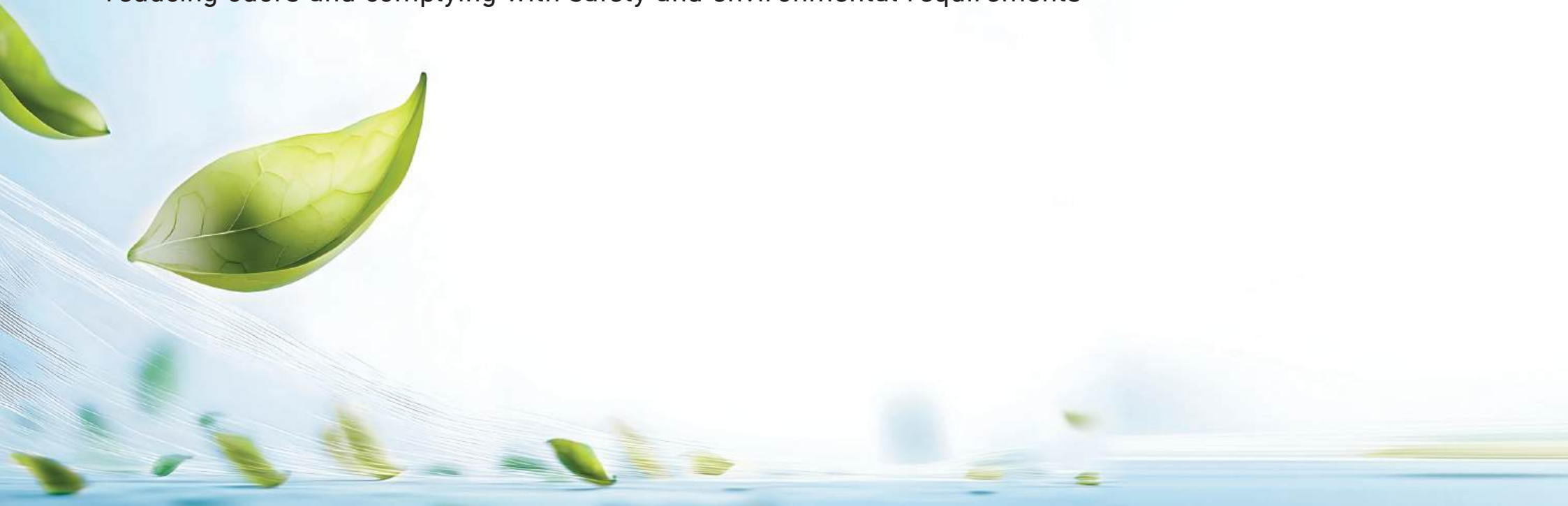


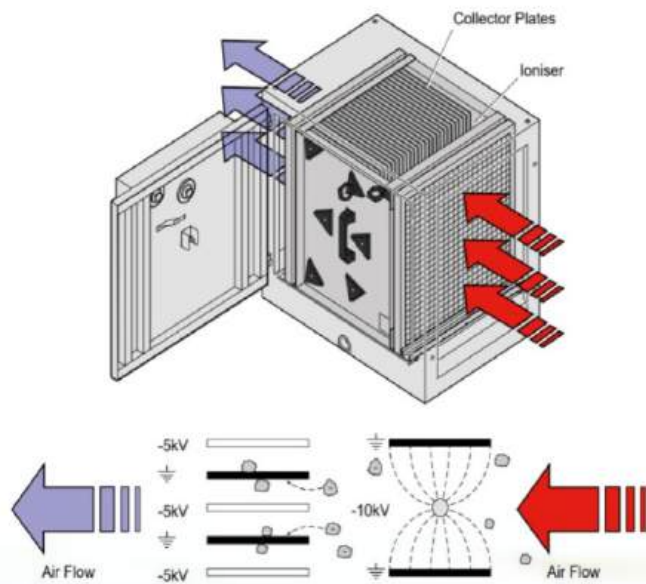
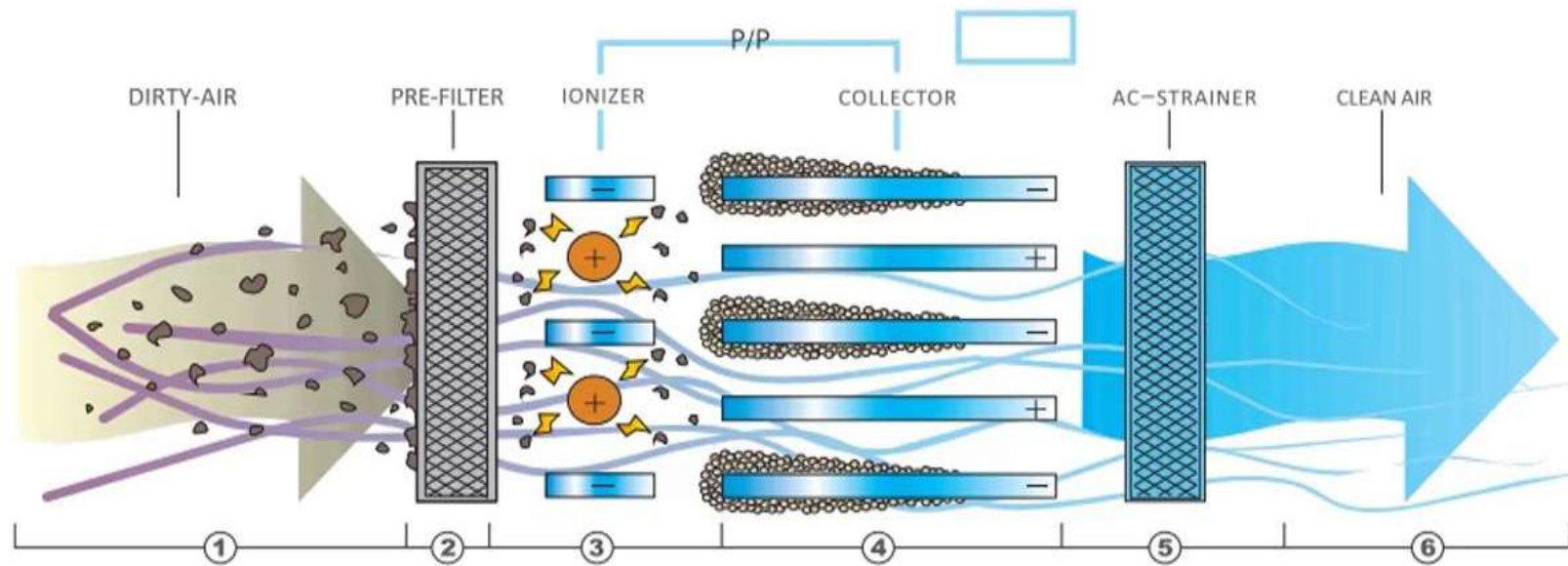


What is an electrostatic filter?

The electrostatic air purification filter is the latest air purification system, and is used to remove grease, smoke, fumes and fine pollutants generated by industrial kitchens and various facilities

The filter depends on high-voltage electrical charging technology by passing and charging the particles of smoke and fats, then attracting them to metal sheets inside the filter electrostatically, and then giving these particles static charges which collect in another metal sheets When smoke passes through the high-voltage electric field, the fat and smoke particles are atomizing which makes air purification efficiency reach 98-99%, so it is makes it an effective and environmentally friendly solution, and contributes to reducing odors and complying with safety and environmental requirements





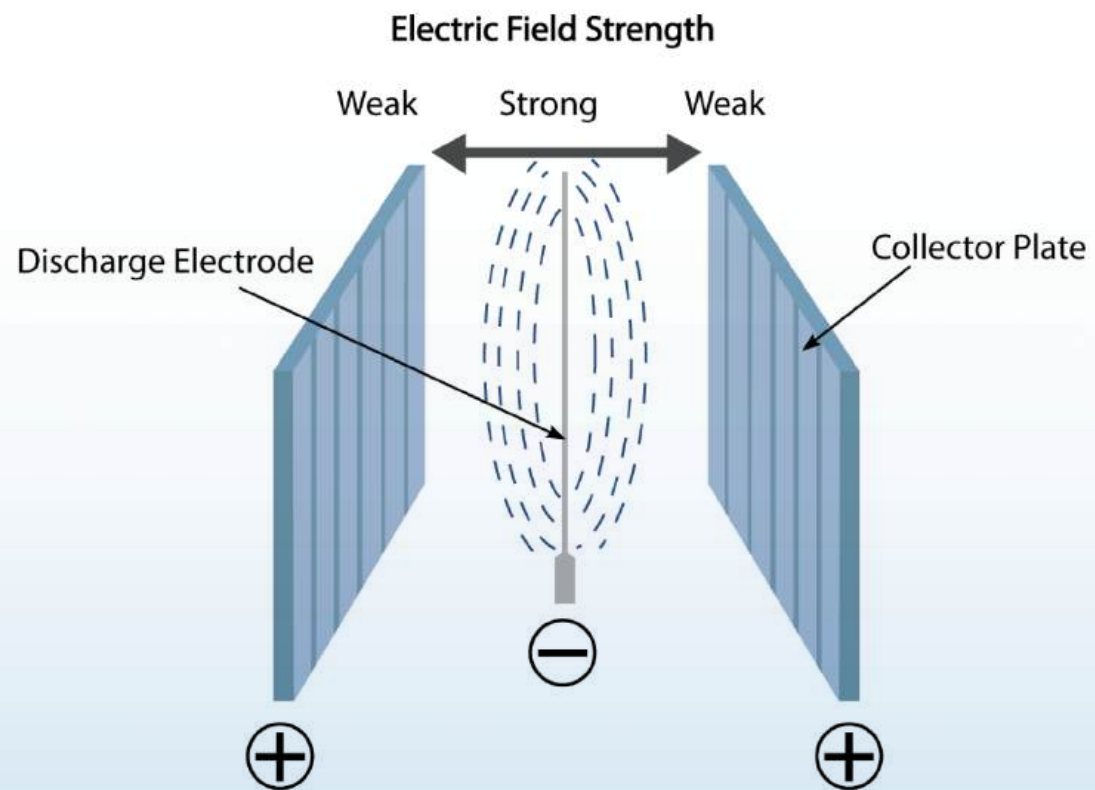




The device mechanism

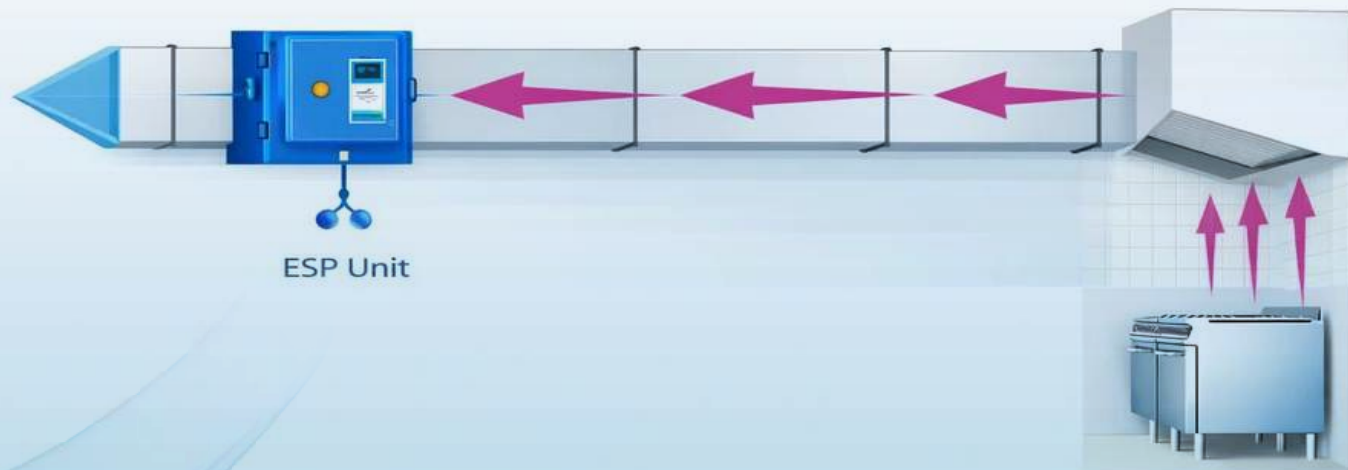
The device is based on the principle of electrostatic precipitation, whereas smoke and grease particles are electrically charged and then attracted to metal sheets with an opposite charge, which makes them to be separated from the air. The plates are located vertically alternately, and the polluted air passes through the filter, so the polluting particles are charged with a high electrical potential. Then deposited on collection plates, allowing the air to come out clean with an efficiency of 95-99% and a significant reduction in odors and smoke

All these stages of the filtration system are enclosed inside a metal box equipped with an inlet for exhaust gas and an outlet for the purified filtered exhaust gas



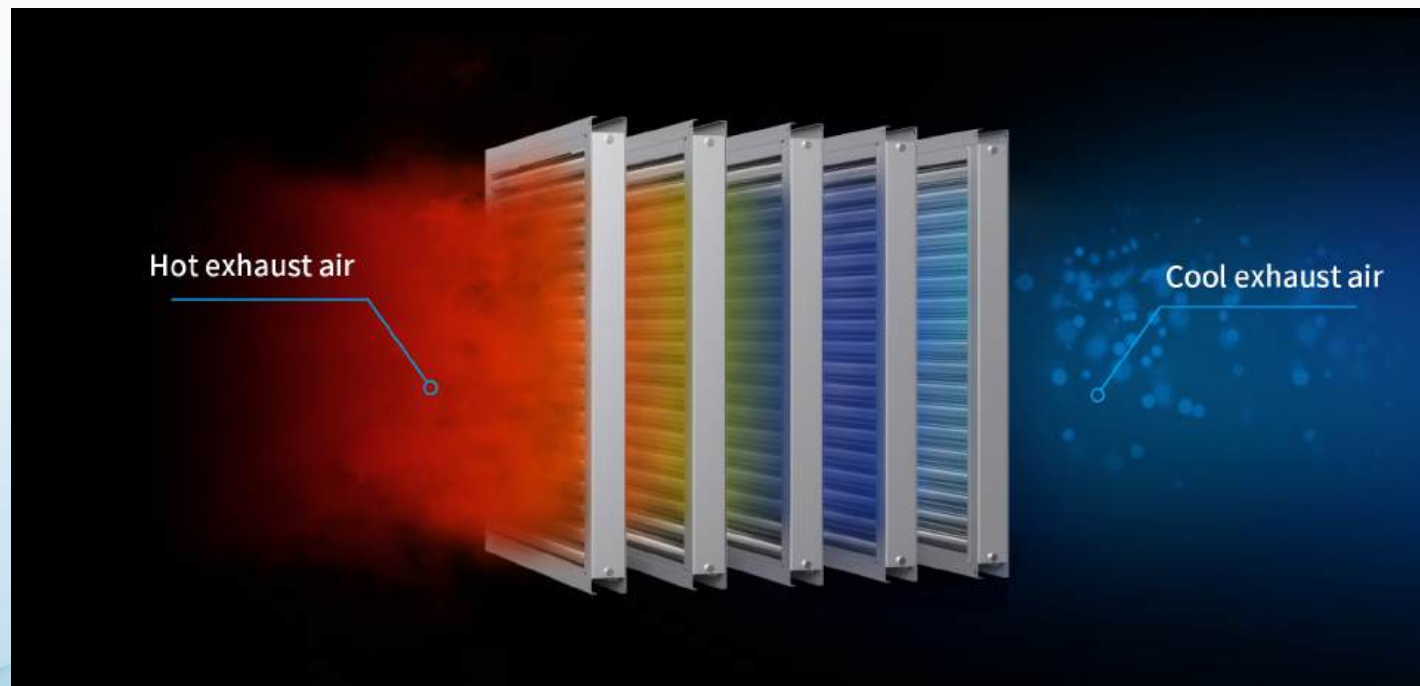
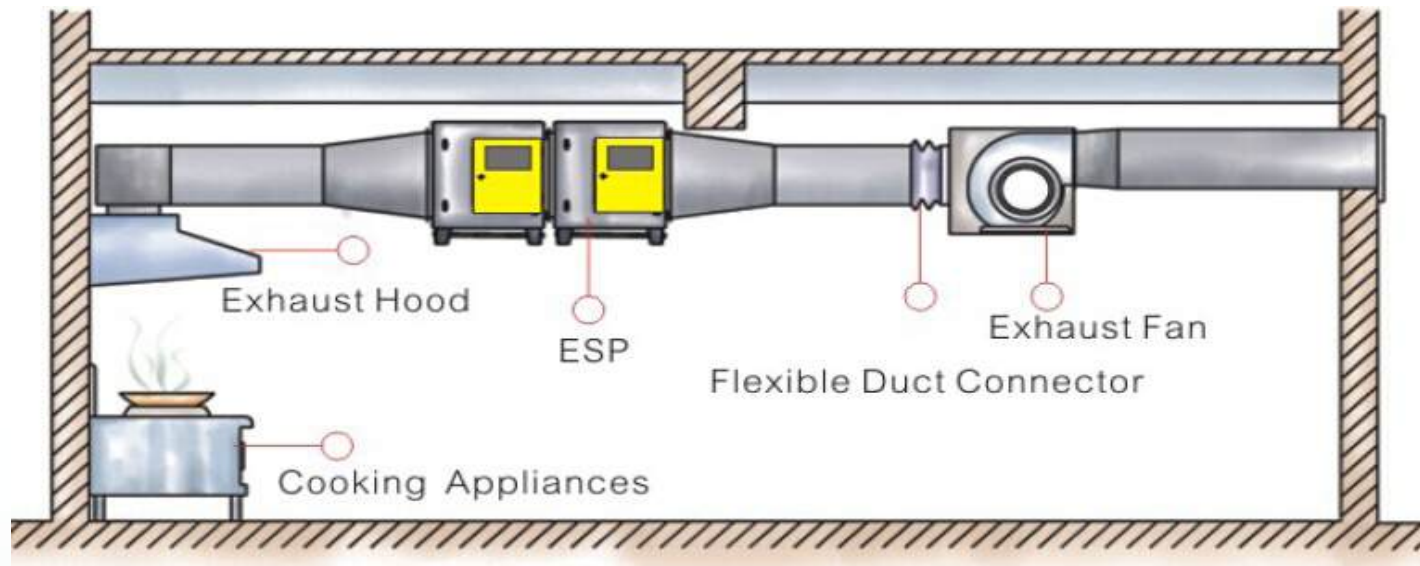
Features of the electrostatic filter

- 1 Solving the problem of lacking ducts or outlets for installing external chimneys, the electrostatic filter is a perfect solution for sites where external chimneys cannot be installed, as it purifies the air before discharging, which eliminated the need of any complicated extensions
- 2 High efficiency in air purification as it works to remove grease, smoke and fine particles with an efficiency rate up to 95-99%
- 3 It significantly reduces odors because it helps minimize smells resulting from cooking or operational processes, thus improving air quality and the surrounding environment
- 4 Suitable for existing buildings and enclosed spaces, it does not require major structural modifications, which makes it suitable for restaurants and kitchens within malls and enclosed buildings
- 5 Easy maintenance and low operating costs as it depends on cleaning the electrical panels with no need to replace consumable filters frequently
- 6 Protecting extraction and ventilation systems reduces grease buildup inside air ducts and fans, thus extending system life and improving efficiency
- 7 It is environmentally friendly because it helps reduce harmful emissions, adheres to environmental standards, complies with safety requirements and relevant authorities, and supports compliance with environmental and civil defense regulations



Uses and areas of application of the device

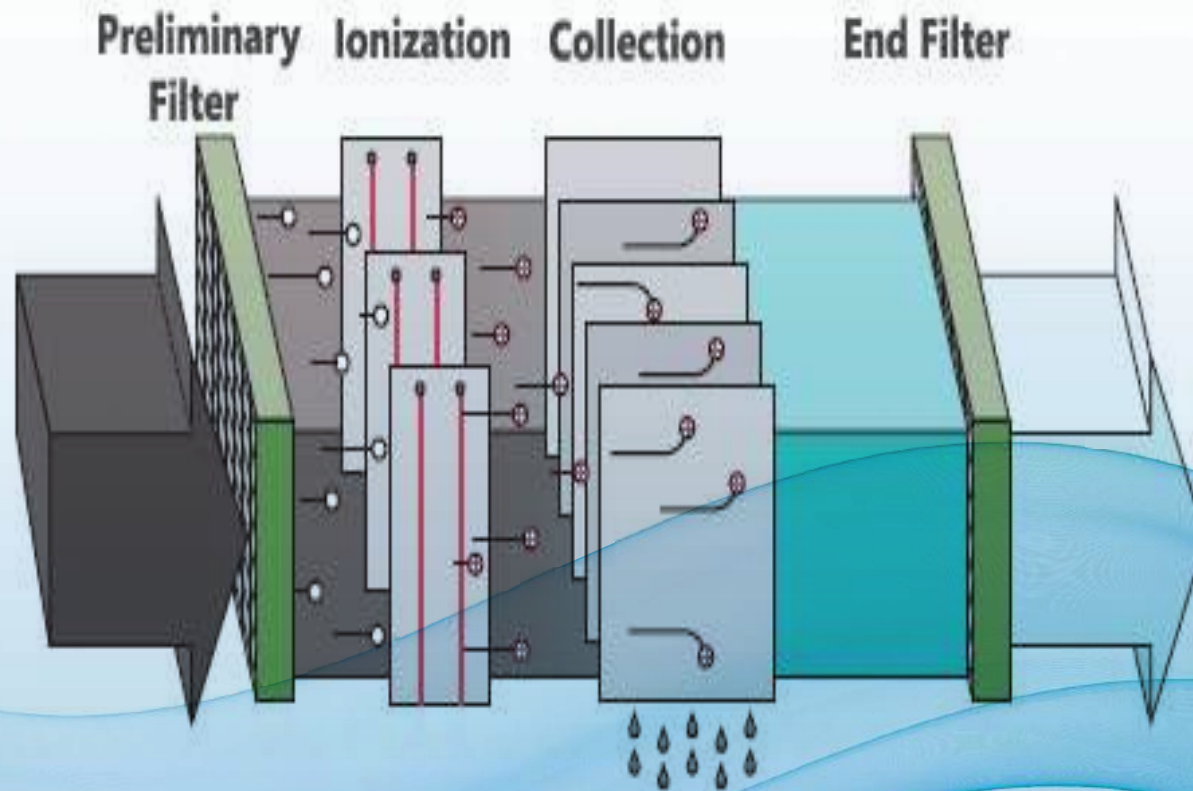
- Reduce the risk of fires caused by grease buildup in ducts
- Purify the air in commercial kitchen chimneys to remove smoke, grease, volatile oils, and cooking odors
- suitable for central restaurants and fast-food chains to reduce grease emissions and protect fans and air ducts from buildup
- Hotels and resorts: To improve air quality and prevent spreading of odors to rooms or public areas
- Hospitals and health kitchens: To maintain a clean environment and reduce fine air pollutants
- Food factories: To purify the air generated by frying, roasting, and food processing
- Bakeries and automated ovens to remove smoke and fine particles resulting from baking and fuel
- Light industrial facilities such as paint, plastics, and oil factories to remove suspended particles
- Ventilation and air conditioning (HVAC) systems to improve indoor air quality and reduce dust and fine pollutants
- Reducing unpleasant odors, when combined with carbon filters, achieves high odor removal efficiency
- Compliance with environmental requirements helps establishments to adhere with environmental laws and standards and reduces complaints
- Reduce maintenance costs by protecting air ducts and fans from grease and debris buildup
- Improving safety and reducing the risk of fires caused by grease buildup in ducts



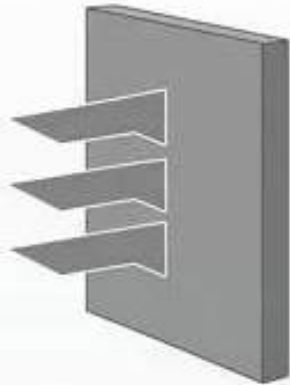
Types of electrostatic filters

There are two types of electrostatic filters for removing inclusions and exhaust fumes, as follows

- 1 Purification of grease, oil, and smoke by filtering up to 98% of vapor-laden particles
- 2 Effective odor control through the use of activated carbon and metal plates that trap gases

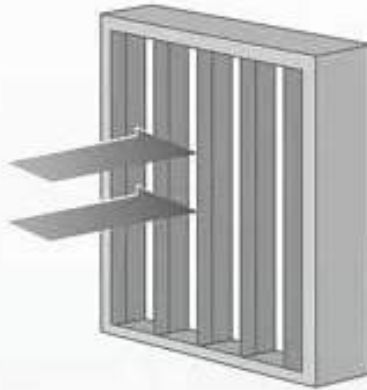


Pre-Filter



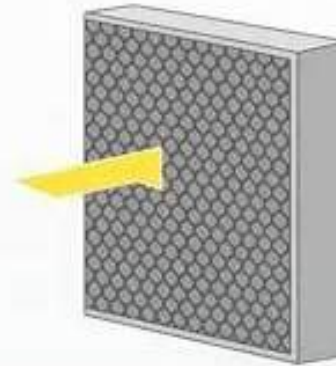
**Removes Large
Particles**

Electrostatic Cell

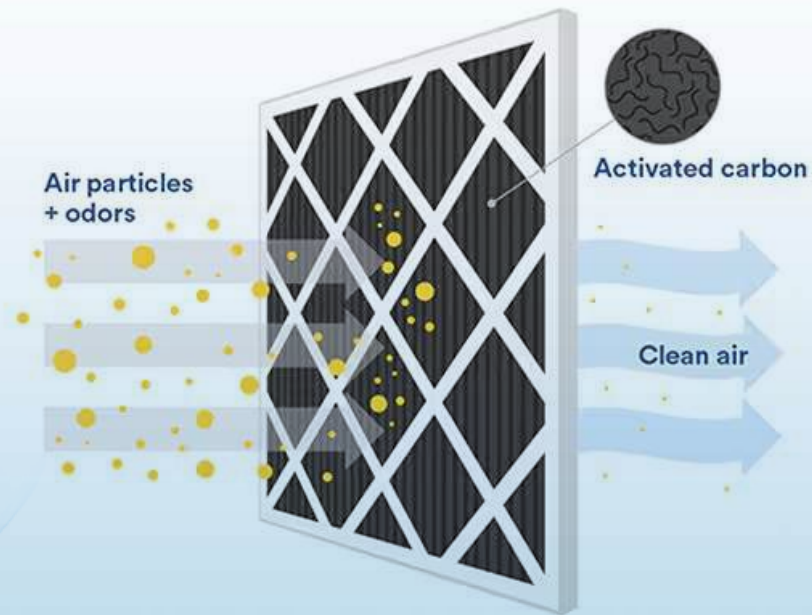


**Removes
Smoke & Dust**

Carbon Filter



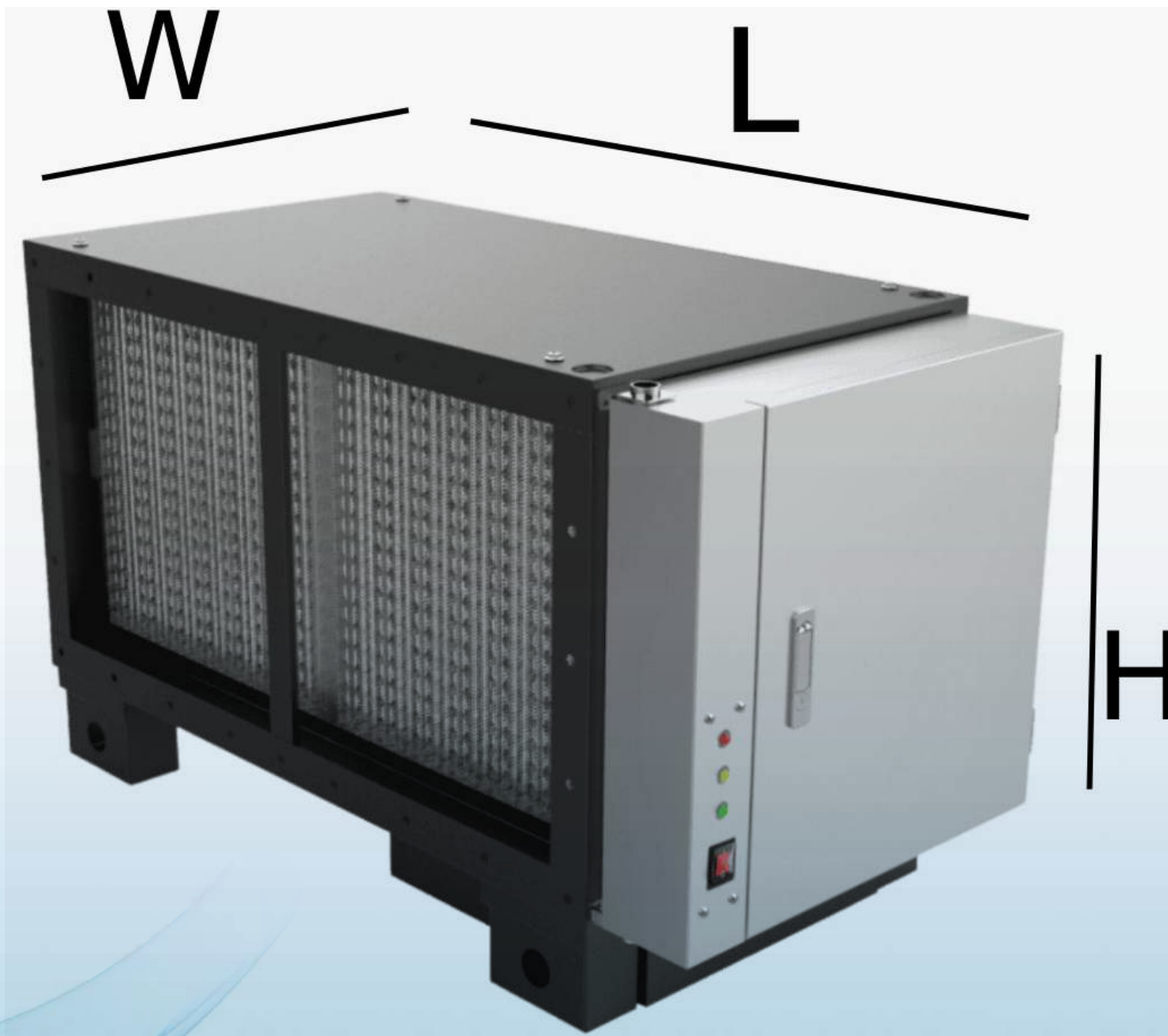
**Removes Odors
& VOCs**



Capacity sizes other than those listed in the table are manufactured and supplied upon request

ESP MODEL	SUPPLY V	POWER W	AIR VOLUME (m ³ /h)	External dimensions (CM)		
				L	W	H
EGN-K4	220	600	4000	108	710	72
EGN-K6	220	705	6000	108	88	72
EGN-K8	220	760	8000	108	93	72
EGN-K10	220	930	10000	108	110	72
EGN-K12	220	1250	12000	110	88	130

Larger capacities can be manufactured and supplied as needed, according to each site and the required specifications. The manufacturing period does not exceed 4 to 6 weeks, according to the manufacturing schedule and factory work



Installation methods

Installation methods according to the conditions of each site



**Installation inside the kitchen
above the hood**



**Installation method
outside the building**



An integrated ecology unit with ventilation and equipment, which can be a charcoal grill or any type of equipment that requires ventilation

Maintenance and technical support

The electrostatic filter is designed to operate with high efficiency and minimal maintenance requirements, while maintaining the highest air purification rates and extends the equipment's operational life cycle

- The device is easy to disassemble and reassemble, and the operator can do this
- The filter components are cleaned by using hot water and specialized degreasers without changing the filter
- Cleaning and maintenance are performed according to a schedule established after the first month of operation
- We offer a maintenance and cleaning contract upon request





**Purify
Percentage 98%**

📍 Belbeis Industrial Zone. 10th of Ramadan Road, Belbeis. Next to DS Factory

☎ +20 10 00241938 +20 10 94639295

✉ info@emajegypt.com