



Energy • Environment • Sustainability



SteraDryScrub

Electrostatic Precipitator (ESP)

FOR COMMERCIAL KITCHEN EXHAUST



ENSAVIOR

—

“In this age of globalization, the smarter and healthier buildings require high-performance engineering solutions. Today is the need for businesses to make a switch to best engineering practices and promote environmentally responsible products and services”





Introduction

Problems associated with contaminated Air exhausted from commercial kitchens are very common, particularly in urban areas where housing may be adjacent to or even immediately above catering premises. These premises might include pubs, clubs, restaurants and takeaways that may be open until the early hours of the morning,

Our **SteraDryScrub** have been specifically designed for kitchen extract systems which An ideal solution for removing oil, smoke, grease, mist and flyash from commercial cooking plumes. ENSAVIOR **SteraDryScrub** is designed and manufactured with latest technology standards and upgrades keeping pressure drop as minimal and are user friendly, efficient and maintenance friendly.



Description

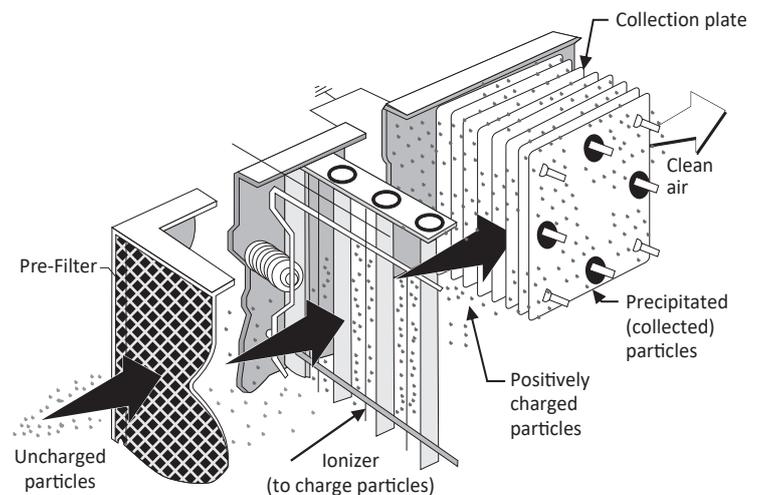
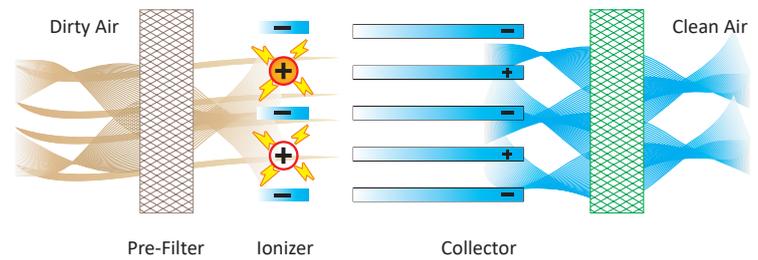
Prefilter, Electrostatic Cell and Postfilter are placed in series within an all metal housing. Contaminated air is drawn by the blower (external) through washable metal mesh pre-filter which traps large dust particles. Thereafter it passes through Electrostatic cell which traps fine particulate matter like oil, smoke and grease, and exits through Postfilter. The solid contaminants are held on electrostatic cell until they are washed off. Liquid contaminants are collected in the bottom tray and can be drained out. The Internal cells can be slide out through Side access door for periodic cleaning. Control Panel is mounted on side access door which houses all Electrical components.





How it works

As the contaminated air enters the Prefilter Stage, the particles pass through a high intensity electrical field in the ionizer stage and get energised with high DC electric field. These energised particles along with air enter to a series of alternately charged collector plates and get attracted to the grounded collector plates due to the repel action by positive plates.



CROSS SECTION

Technical...

| Parameters | ESP-I | ESP-II | ESP-III | ESP-IV | ESP-V |
|-----------------------------------|---|-----------|-----------|-----------|-----------|
| Nominal Height (mm) | 540-565 | 540-565 | 540-565 | 540-565 | 540-565 |
| Nominal Length (mm) | 615-620 | 615-620 | 615-620 | 615-620 | 615-620 |
| Nominal Width (mm) | 660-750 | 1160-1310 | 1660-1900 | 2160-2475 | 2670-2800 |
| Material of Construction | Ganvanised Steel | | | | |
| Finishing | Powder Coated Finish | | | | |
| Weight (Aprox) | 60 | 95 | 125 | 160 | 195 |
| Air Volume (Max) - CFM | 2100 | 4200 | 6300 | 8400 | 10500 |
| Airflow Directon | Standard Left To Right (Right to Left on confirmation) | | | | |
| Statc Pressure Drop | 5-8 mm | | | | |
| Safety | Auto power cut-off when door is opened, Short circuit, arc protection and auto restore power supply | | | | |
| Efficiency | 90-95% | | | | |
| Particle Size | 0.01 microns - 10 microns | | | | |
| No. of Cell | 1 | 2 | 3 | 4 | 5 |
| Weight of Electrostatic Cell | 15 Kg | | | | |
| Type of Ionizer | Tungsten Wire | | | | |
| Prefilter | Aluminium wire mesh, Washable | | | | |
| No. of Prefilters | 1 | 2 | 3 | 4 | 5 |
| Afterfilter | OPTIONAL | | | | |
| Input Voltage/Frequency | 230 Vac+/-10%, 50/60 Hz (Single Phase) | | | | |
| Power Consumption | 60 W | 90 W | 120 W | 155 W | 180 W |
| HV-SMPS - Output Voltage | 12 - 13 KVDC / 6 - 6.5 KVDC | | | | |
| HV-SMPS - Output Metering | OPTIONAL | | | | |
| Protections | Auto power cut-off when door is opened, Short circuit, arc protection and auto restore power supply | | | | |
| Certifications | POWER PACK (SMPS CE CERTIFIED) | | | | |
| Add-on Ozone UV Lamps (OPTIONAL) | 1 Nos | 1 No. | 2 Nos | 2 Nos | 2 Nos. |

Features & Benefits



Incorporating the latest advanced technology design and manufacturing technology, ENSAVIOR **SteraDryScrub** bring to the customer even greater operational, maintenance and Efficiency benefits.

SMOKE AND ODOR CONTROL

Components effectively remove both liquid and solid particulate, as well as gas and odor.

HIGH EFFICIENCY CLEANING

Up to 99% efficient, per DOP & ASHRAE test methods.

LOW PRESSURE DROP

Very low pressure drop in comparison to media and cartridge filter, thereby saving fan energy.

FIRE SAFE

Designed to NFPA 96 standards for kitchen exhaust.

CONSTRUCTION QUALITY

High quality construction adhering to international standards.

HEAVY DUTY ELECTROSTATIC CELL DESIGN

The most durable and efficient cell design on the market insures long term performance and reliability. Highly efficient and easy to maintain at the same time.

HIGH VOLTAGE SMPS

New generation HV-SMPS based on Frequency Modulation with CV & CC Loops for Uniform Corona formation. KV and mA metering can be offered as an option.

SS SPIKED IONIZER SAWTOOTH DESIGN (Optional)

Efficient Charging with unique ionizer design. Unlike Wire Ionizers no problems of wire breakage and lower corona intensity. Increased system reliability and Reduces maintenance/replacement cost.

PTFE INSULATOR

- Increased reliability and performance.
- Prevents cracks and imperfections.
- High surface area than standard insulators.

SIMPLE TO SERVICE

Designed for easy serviceability. Like -Weldless/ Jointless 50 mm deep Drain Pan and easy access to control panel etc.

EASE OF INSTALLATION

System design makes installation simple and requires no field assembly. Just attach your ductwork, electrical connection and plumbing, and it's done.

MODULAR/SECTIONAL DESIGN

Built-up modular design allows units to be stacked to your exact requirements

OPTION'S AVAILABLE

- Tailor made to suit site conditions
- UV-O3
- Double skin constructions
- Auto wash
- Combined with modular fan section
- Carbon Filter



Ensavior Technologies Pvt. Ltd.



+91 9658-373-373



info@ensavior.com
www.ensavior.com



Plot No. 17A, Block A,
Sector 19, Dwarka,
New Delhi-110075, India



Pumping | Pressurisation & Deaeration | PICV & Automatic Balancing Valves | Thermal Storage | Water Filtration
Electrolytic Scale Remover | Air Purification | Dry Scrubber | UVGI | HVAC Sensors | Gas / Refrigerant Leak Detector

Branch Offices: Bengaluru | Kolkata | Mumbai | Singapore

CIN: U72900DL2011PTC222724

Due to continuous development, the specifications and product appearance subject to change without prior notice.