

Electrostatic Air Filtration System

## Dry Scrubber for Kitchen Exhaust Fumes



**Proven solutions for  
the commercial kitchens  
of today and tomorrow!**

[filter-on.com](http://filter-on.com)

 **FILTER ON**  
India Pvt. Ltd.  
*Healthy air. Healthy profits*



## About Us

Established in 1983, Filter-On is one of the leading Indian companies in the field of Air Filtration Systems. We are the pioneers in India in providing efficient air filtration solutions developed around Electrostatic Precipitation Technology (ESP).

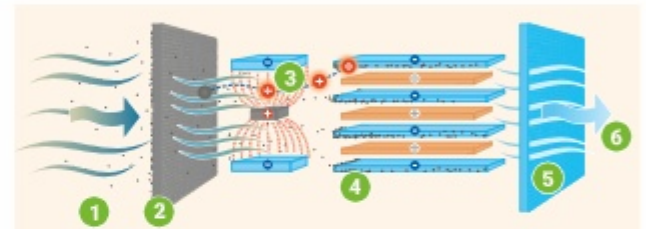
We have installed over 7000 systems for commercial kitchens and other more demanding industrial applications such as, extraction of welding/machining fumes & oil mist, heavy dust collection in grinding & metal cutting processes, etc. Our advanced technology **Electrostatic Air Filtration Systems (Dry Scrubbers)** are operational in the large kitchens of well-known **hotels, restaurants, industrial kitchens, community kitchens, hostels, hospitals and malls** across India.

Providing well-engineered, customised solutions developed around your present and future requirements is the speciality of Filter-On. Irrespective of the size of your kitchen, we can offer the right solutions to address the air flow capacity and quality challenges faced by you.

We have a large, well-equipped manufacturing plant in Pune, India and are the first Indian company in the field to receive an ISO 9001:2015 certification. The quality of our equipment and systems is ensured through proper engineering, use of high quality materials and by adhering to advanced manufacturing practices. Our efficient after-sales service and ready availability of spares ensures high uptime of your system. That a significant share of our business comes through repeat orders is a testimony to our expertise, quality and service.

## Electrostatic Precipitator Technology (ESP)

This technology is based on the principle of two-stage electrostatic air filtration. In this system, air is passed through an electrostatic field where fine suspended particles get charged. The charged particles get attracted towards the opposite charged electrode plates and precipitate. As a result of this process, contaminants get accumulated on the charged plates. Metallic, washable filters are easy to clean and eliminate recurring costs of replacement.



Electrostatic (ESP) Filtration Technology

- |              |                       |                |
|--------------|-----------------------|----------------|
| 1 Dirty air  | 3 Ionizing electrodes | 5 After-filter |
| 2 Pre-filter | 4 Collection plates   | 6 Clean air    |

## ESP Air Cleaner / Dry Scrubber from Filter-On

**For the commercial kitchens of today and tomorrow!**

We make effective use of Electrostatic Precipitator Technology to filter out fumes, smoke, oil, grease, mist particles, dust particles and odour from the kitchen exhaust. In this system, contaminated air from the kitchen is sucked through the kitchen hoods. It passes further via the air duct and enters into the Dry Scrubber where it is treated before being released into the atmosphere. Our Dry Scrubber demonstrates almost 90-98% efficiency in filtering out air contaminants and ensures clean air discharge. They are capable of handling the smallest sized particles from 0.01 micron to 10 micron. We offer highly efficient, well-engineered and customised solutions for almost any size of kitchen which assures excellent return on your investment.



## Benefits

**High efficiency even for sub-micron particles**

**Zero replacement cost**

**Low pressure loss – saves running cost**

**Saves water – No continuous water usage unlike wet scrubber**

**Saves power – Does not require a pump**

**Compact as compared to wet scrubber**

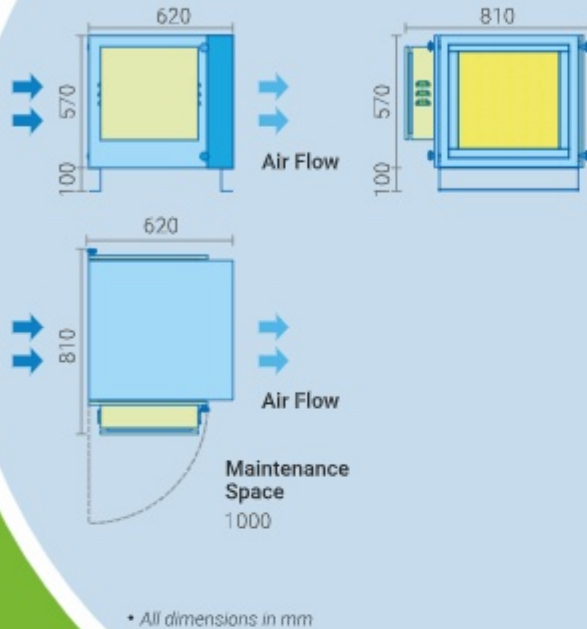


Spiked Electrodes

Face Velocity FPM	Efficiency %	Pressure Drop mm WC	Velocity vs Efficiency	Face Velocity vs Pressure Drop
300	97	2.5		
400	96	4		
500	93	5		
600	87	8		
700	80	11		
800	75	13.5		

## Advantages of Filter-On Dry Scrubbers over other makes

- Spiked electrodes instead of ordinary wires** – Eliminate problem of wire breakages during maintenance
- Larger collection area for the same air flow** – Improved efficiency and more maintenance-friendly
- Longer life** – Industrial, heavy-duty construction of ESP cells & casing using sheets of higher thickness
- Ready to install** – Fully assembled unit is supplied
- Higher reliability** – Performance defining electrical components with CE marking
- Lower CAPEX** – Get exactly what you require and reduce capital expenditure
- Scalability** – Can be easily upgraded to meet your future needs
- Modular** – Any air flow capacity is possible by using a combination of standard units



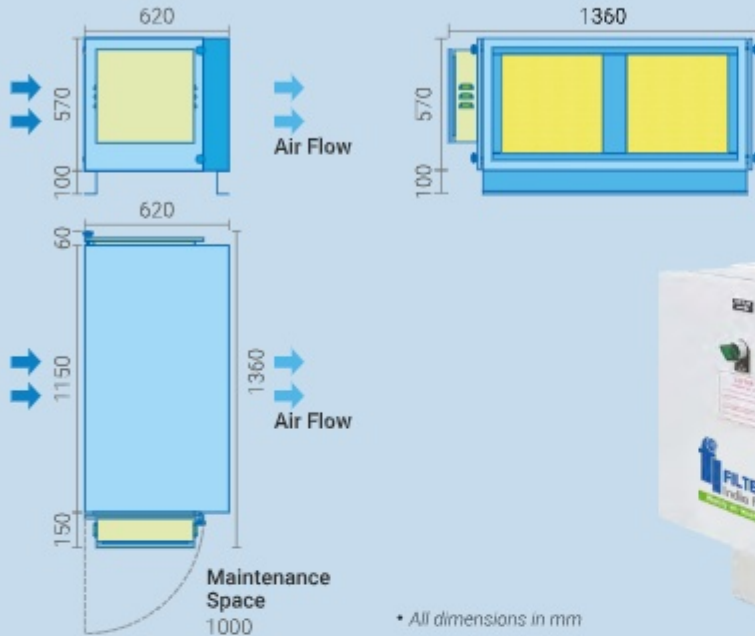
DS 2 Dry Scrubber model is designed to handle **air flow between 1200 to 2000 CFM (2000 to 3400 CMH)**. It is compact yet efficient and easy to install, operate and maintain.



Technical Specifications	
Model	DS 2
Air Flow CFM	1200 - 2000
Air Flow CMH	2000 - 3400
Pressure Drop (mm H <sub>2</sub> O)	8-10 mm WC
Unit Size (L x W x H) in mm (Std. Length 100 mm)	620 x 810 x 570
Construction	
ESP Cells	<ul style="list-style-type: none"> <li>• Ionization electrode: SS spiked electrode</li> <li>• Collection plates: Aluminum 20G plates</li> <li>• Collection trays: Aluminum 16G</li> <li>• Insulators: Ionizer - PTFE &amp; Collector - glass-filled polyester</li> <li>• Cell size (L x W x H): 350 x 500 x 490 mm</li> <li>• Total plates per cell: 67 No.</li> </ul>
No. of Cells	1 Number
Collection Area	6.95 sq.m
Cabinet	16G CRCA Mild Steel / Galvanized Steel
Finish	Powder coating in RAL 7035 shade
Pre-Filter	Aluminum wire mesh type filter
Post Filter	Aluminum wire mesh type filter
Air Flow Direction	Standard: Right to Left (Option: Left to Right)

Electrical Specifications	
High Voltage Power Supply	<ul style="list-style-type: none"> <li>• Input Voltage: 180-260 V AC, 50 Hz 1 Ph supply with proper earthing</li> <li>• Ionization Voltage: 11.5-12 kV DC</li> <li>• Collection Voltage: 5.5-6 kV DC</li> <li>• Solid State High Voltage High Frequency, Auto-regulating CE marked power supply</li> </ul>
Power	50 Watt
Features	<ul style="list-style-type: none"> <li>• Protection against short-circuit as well as arcing</li> <li>• Auto-restart feature</li> </ul>
Safety	<ul style="list-style-type: none"> <li>• Power is switched-off when panel door or unit door is opened</li> <li>• Residual charges discharge within 10 sec.</li> </ul>
Indicators/Control	On/Off Switch with Indicating Light
Connections	Remote connectors available to connect system to either remote or to any BMS
Performance	<ul style="list-style-type: none"> <li>• Ability to capture particles from 0.01 to 10 micron size</li> <li>• Filtration efficiency: 95+/-2% down to 0.5 micron size particles as per ASHRAE 52.2 Std. in single pass at 450 FPM and 99+% for double pass**</li> <li>• Confirms to MERV15 Rating over range of face velocities from 2.2 - 3.65 m/s.</li> </ul>
<b>OPTIONAL (Extra on demand)</b>	<ul style="list-style-type: none"> <li>• Activated carbon type post-filters</li> <li>• UV deodorization system</li> </ul>
** At maximum selection of air flow capacity (at @ 650-700 FPM Vel), efficiency will be in range of 83-85%)	

# DS 4

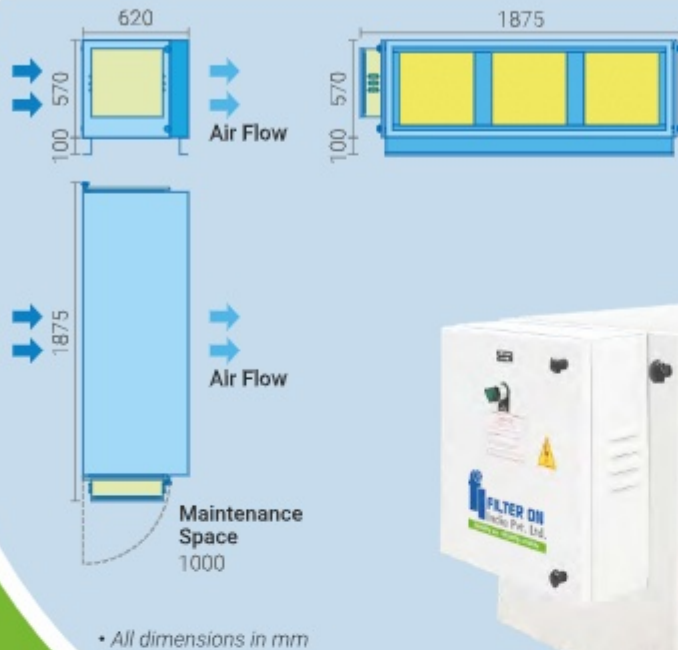


DS 4 Dry Scrubber model is designed to handle **air flow between 2400 to 4000 CFM (4000 to 7000 CMH)**. It is designed to perform and can be maintained easily.



Technical Specifications	
Model	DS 4
Air Flow CFM	2400 - 4000
Air Flow CMH	4000 - 7000
Pressure Drop (mm H2O)	8 - 10 mm WC
Unit Size (L x W x H) in mm (Std. Length 100 mm)	620 x 1360 x 570
Construction	
ESP Cells	<ul style="list-style-type: none"> <li>Ionization electrode: SS spiked electrode</li> <li>Collection plates: Aluminum 20G plates</li> <li>Collection trays: Aluminum 16G</li> <li>Insulators: Ionizer - PTFE &amp; Collector - glass-filled polyester</li> <li>Cell size (L x W x H): 350 x 500 x 490 mm</li> <li>Total plates per cell: 67 No.</li> </ul>
No. of Cells	2 Number
Collection Area	13.9 sq.m
Cabinet	16G CRCA Mild Steel / Galvanized Steel
Finish	Powder coating in RAL 7035 shade
Pre-Filter	Aluminum wire mesh type filter
Post Filter	Aluminum wire mesh type filter
Air Flow Direction	Standard: Right to Left (Option: Left to Right)

Electrical Specifications	
High Voltage Power Supply	<ul style="list-style-type: none"> <li>Input Voltage: 180-260 V AC, 50 Hz 1 Ph supply with proper earthing</li> <li>Ionization Voltage: 11.5-12 kV DC</li> <li>Collection Voltage: 5.5-6 kV DC</li> <li>Solid State High Voltage High Frequency, Auto-regulating CE marked power supply</li> </ul>
Power	50 Watt
Features	<ul style="list-style-type: none"> <li>Protection against short-circuit as well as arcing</li> <li>Auto-restart feature</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Power is switched-off when panel door or unit door is opened</li> <li>Residual charges discharge within 10 sec.</li> </ul>
Indicators/Control	On/Off Switch with Indicating Light
Connections	Remote connectors available to connect system to either remote or to any BMS
Performance	<ul style="list-style-type: none"> <li>Ability to capture particles from 0.01 to 10 micron size</li> <li>Filtration efficiency: 95+/-2% down to 0.5 micron size particles as per ASHRAE 52.2 Std. in single pass at 450 FPM and 99+% for double pass**</li> <li>Confirms to MERV15 Rating over range of face velocities from 2.2 - 3.65 m/s.</li> </ul>
<b>OPTIONAL (Extra on demand)</b>	<ul style="list-style-type: none"> <li>Activated carbon type post-filters</li> <li>UV deodorization system</li> </ul>
** At maximum selection of air flow capacity (at @ 650-700 FPM Vel), efficiency will be in range of 83-85%)	



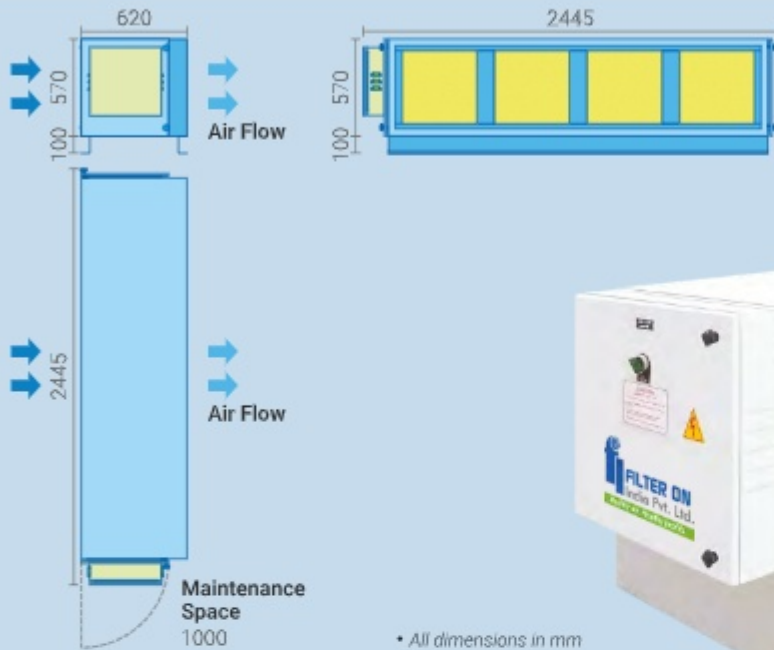
DS 6 Dry Scrubber model from Filter-On is designed to handle **air flow between 3600 to 6000 CFM (6000 to 10000 CMH)**. It offers higher efficiency and has lower cost of maintenance.



Technical Specifications	
Model	DS 6
Air Flow CFM	3600 - 6000
Air Flow CMH	6000 - 10000
Pressure Drop (mm H2O)	8 - 10 mm WC
Unit Size (L x W x H) in mm (Std. Length 100 mm)	620 x 1875 x 570
Construction	
ESP Cells	<ul style="list-style-type: none"> <li>Ionization electrode: SS spiked electrode</li> <li>Collection plates: Aluminum 20G plates</li> <li>Collection trays: Aluminum 16G</li> <li>Insulators: Ionizer - PTFE &amp; Collector - glass-filled polyester</li> <li>Cell size (L x W x H): 350 x 500 x 490 mm</li> <li>Total plates per cell: 67 No.</li> </ul>
No. of Cells	3 Number
Collection Area	20.85 sq.m
Cabinet	16G CRCA Mild Steel / Galvanized Steel
Finish	Powder coating in RAL 7035 shade
Pre-Filter	Aluminum wire mesh type filter
Post Filter	Aluminum wire mesh type filter
Air Flow Direction	Standard: Right to Left (Option: Left to Right)

Electrical Specifications	
High Voltage Power Supply	<ul style="list-style-type: none"> <li>Input Voltage: 180-260 V AC, 50 Hz 1 Ph supply with proper earthing</li> <li>Ionization Voltage: 11.5-12 kV DC</li> <li>Collection Voltage: 5.5-6 kV DC</li> <li>Solid State High Voltage High Frequency, Auto-regulating CE marked power supply</li> </ul>
Power	100 Watt
Features	<ul style="list-style-type: none"> <li>Protection against short-circuit as well as arcing</li> <li>Auto-restart feature</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Power is switched-off when panel door or unit door is opened</li> <li>Residual charges discharge within 10 sec.</li> </ul>
Indicators/Control	On/Off Switch with Indicating Light
Connections	Remote connectors available to connect system to either remote or to any BMS
Performance	<ul style="list-style-type: none"> <li>Ability to capture particles from 0.01 to 10 micron size</li> <li>Filtration efficiency: 95+/-2% down to 0.5 micron size particles as per ASHRAE 52.2 Std. in single pass at 450 FPM and 99+% for double pass**</li> <li>Confirms to MERV15 Rating over range of face velocities from 2.2 - 3.65 m/s.</li> </ul>
<b>OPTIONAL (Extra on demand)</b>	<ul style="list-style-type: none"> <li>Activated carbon type post-filters</li> <li>UV deodorization system</li> </ul>
** At maximum selection of air flow capacity (at @ 650-700 FPM Vel), efficiency will be in range of 83-85%)	

# DS 8



DS 8 Dry Scrubber model is designed to handle **air flow between 4800 to 8000 CFM (8000 to 14000 CMH)**. This higher capacity model is the first choice of leading contractors.



Technical Specifications	
Model	DS 8
Air Flow CFM	4800 - 8000
Air Flow CMH	8000 - 14000
Pressure Drop (mm H <sub>2</sub> O)	8 - 10 mm WC
Unit Size (L x W x H) in mm (Std. Length 100 mm)	620 x 2445 x 570
Construction	
ESP Cells	<ul style="list-style-type: none"> <li>Ionization electrode: SS spiked electrode</li> <li>Collection plates: Aluminum 20G plates</li> <li>Collection trays: Aluminum 16G</li> <li>Insulators: Ionizer - PTFE &amp; Collector - glass-filled polyester</li> <li>Cell size (L x W x H): 350 x 500 x 490 mm</li> <li>Total plates per cell: 67 No.</li> </ul>
No. of Cells	4 Number
Collection Area	27.8 sq.m
Cabinet	16G CRCA Mild Steel / Galvanized Steel
Finish	Powder coating in RAL 7035 shade
Pre-Filter	Aluminum wire mesh type filter
Post Filter	Aluminum wire mesh type filter
Air Flow Direction	Standard: Right to Left (Option: Left to Right)

Electrical Specifications	
High Voltage Power Supply	<ul style="list-style-type: none"> <li>Input Voltage: 180-260 V AC, 50 Hz 1 Ph supply with proper earthing</li> <li>Ionization Voltage: 11.5-12 kV DC</li> <li>Collection Voltage: 5.5-6 kV DC</li> <li>Solid State High Voltage High Frequency, Auto-regulating CE marked power supply</li> </ul>
Power	100 Watt
Features	<ul style="list-style-type: none"> <li>Protection against short-circuit as well as arcing</li> <li>Auto-restart feature</li> </ul>
Safety	<ul style="list-style-type: none"> <li>Power is switched-off when panel door or unit door is opened</li> <li>Residual charges discharge within 10 sec.</li> </ul>
Indicators/Control	On/Off Switch with Indicating Light
Connections	Remote connectors available to connect system to either remote or to any BMS
Performance	<ul style="list-style-type: none"> <li>Ability to capture particles from 0.01 to 10 micron size</li> <li>Filtration efficiency: 95+/-2% down to 0.5 micron size particles as per ASHRAE 52.2 Std. in single pass at 450 FPM and 99+% for double pass**</li> <li>Confirms to MERV15 Rating over range of face velocities from 2.2 - 3.65 m/s.</li> </ul>
<b>OPTIONAL (Extra on demand)</b>	<ul style="list-style-type: none"> <li>Activated carbon type post-filters</li> <li>UV deodorization system</li> </ul>
** At maximum selection of air flow capacity (at @ 650-700 FPM Vel), efficiency will be in range of 83-85%)	

## A few of our major installations

- Amanora Mall, Pune
- Appu Ghar, Gurgaon
- Army School Canteen, Chandrapur
- GEA Process Engineering, Mumbai
- In Green Restaurant, Seasons Mall, Pune
- ISRO, Thiruvananthapuram
- MCA Stadium, Pune
- Palm Beach Galleria Mall, Navi Mumbai
- Prozone Mall, Coimbatore
- Reliance Hospital, Mumbai
- Suzuki Motor Plant, Gujarat
- Taj Hotels, Mumbai
- TCS, Chennai
- The Crescent, Goa



Corporate Office & Factory:  
S. No. 81/1, Dangat Industrial Estate,  
Near Agarwal Godown, NDA Rd.,  
Shivne, PUNE 411 023 INDIA  
Tel. : +91 77200 88713/77200 88723  
E-mail : [filteron.india@gmail.com](mailto:filteron.india@gmail.com)  
[filter-on.com](http://filter-on.com)

