

Catalogs





ECO SEASON[®]

Kitchen Ecology Unit





ECO SEASON[®]



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What is Ecology Unit

Kitchen Ecology Unit (KEU) also known as Pollution Control Unit (PCU). It is a complete filter arrangement developed to remove smoke , grease particles and to control odor from the exhaust air stream of kitchen hoods along with exhaust fans , Ecology Unit is considered a perfect solution for commercial kitchens which usually serve Hotels, restaurants, Hospital and Food industry.

Kitchen pollution treatment is one of the hot topics highlighted in new building design criteria. Ecology Unit reflects a growing trend in Green Building standards , Municipal legislation to improve the Quality of buildings air fields.



Kitchen Pollution Treatment

Ecology unit components including Electrostatic precipitator (ESP) along with metal Filter and grease trap offer economical operation cost, high efficiency of removing grease and smoke produced during cooking processes, that will lead to increase the safety of exhaust fan system and reduce air pollution to comply with the regulation and standards which aim to reduce greenhouse gas emissions and meet green building requirement.

Ecology unit ozone system with activated carbon filter considered a full solution for odor control system, it is required system for any restaurant. where it will lead to reduce risk of complaints from neighbors who may be disturbed by the smell, complaints can push authorities to force the restaurant to close. In case of seafood, food with Asian flavors and BBQ restaurant, it is a real challenge for any shopping mall, food court in commercial centers or cities municipalities to have those kinds of restaurant.

Without odor control unit, hotels client will detect food odor inside the rooms they will find smell in bed, blanket and carpets, because food smell exhausted from kitchen will usually back by fresh air intakes, on other side food smell will be existing at Hotel courtyard, swimming pool and hotel reception entrance, that will lead to low customer reviews which consider a Serious problem to any 5-star hotel or resort.

Ecology Unit Features

Unit Housing

ECO SEASON Kitchen Ecology has robust self supporting modular design assembled with double skin panel for maximum acoustic and thermal insulation with an integrated base frame .

Standard Feature

- Double wall housing stainless steel inner and outer walls.
- Fully welded construction supported by stainless steel frames .
- 1.5 inch Rockwool insulation.
- Hinged door with handle.
- Base frame .
- Wide range of custom feature .

Optional Features

Fan Options

- Single width single inlet (SWSI) fans.
- Plug Fan .
- UL Listed Fan.
- Variable frequency drive (VFD)
- Explosion proof motor .

Controller :

- Local Controller with monitoring panel .
- BMS interference .
- Remote panel .
- Starter motor .

Dampers :

- Fire damper .
- Motorized damper.

Other filtration devices :

- UV Filtration (Smoke Filtration) .
- Air neutralizer spray system (Odor Control)

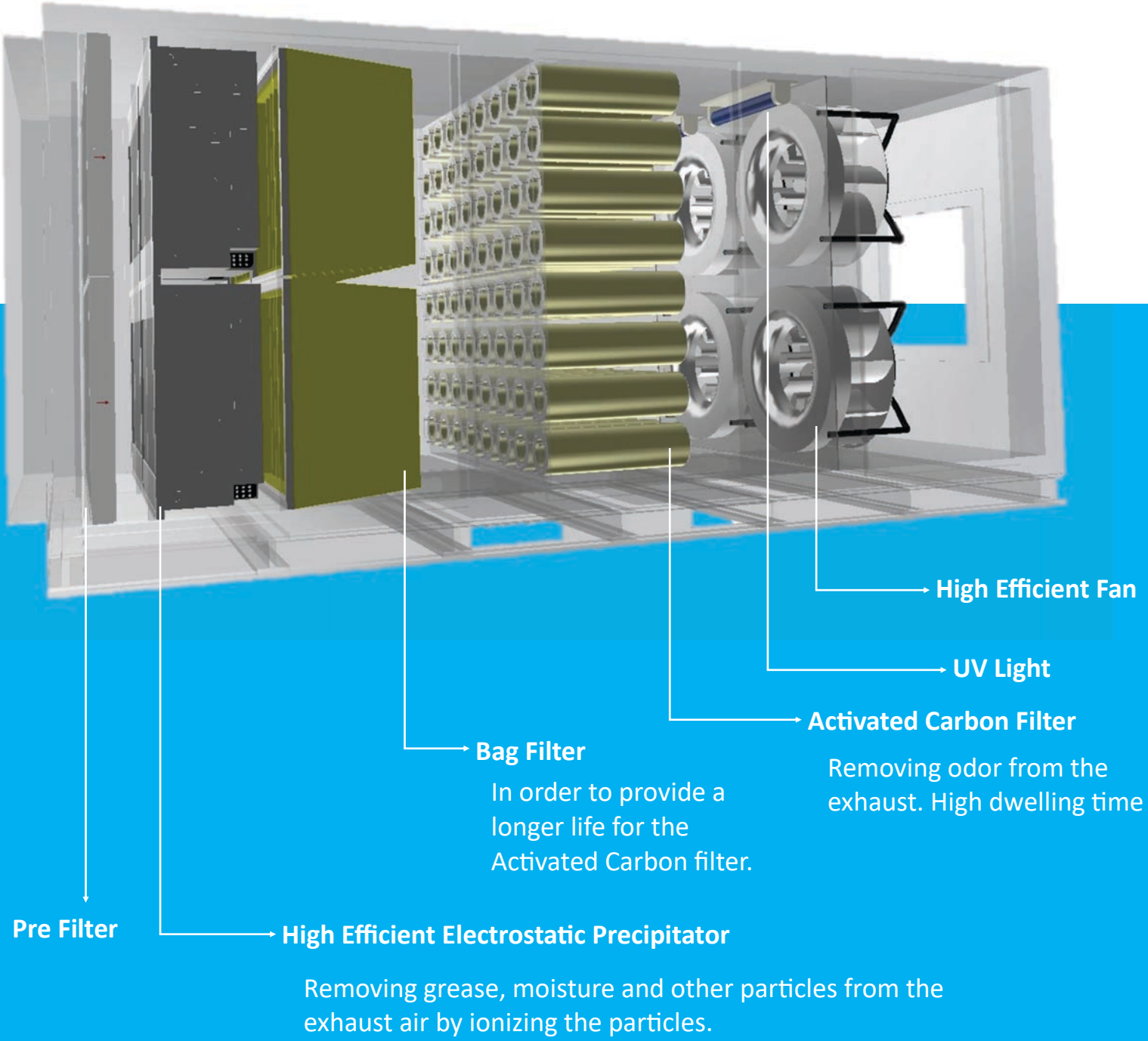
Pressure measuring devices :

- Pressure measuring ports.
- Pressure switches.
- Pressure gauge (Magnehelic).

Others :

- Doors for both side .
- Sight glass .
- Bulkhead light .
- Rain Louver.
- Weatherproof canopy (outdoor installation) .
- Fire suppression system.
- UL listed components .
- Vertical configuration unit

Ecology Unit Components



Filters Sections



Pleated Filters

2 inch deep pleated filter, rated at 40% ASHRAE Std 52.1, MERV 8 performance per ASHRAE 52.2.



Electrostatic Precipitators

UL listed High efficacy removal for smoke, grease, and moisture .



Bag Filter

15 inch deep bag filter, rated at 90-95% ASHRAE 52.1 Std, Multi - Pocket MERV 13 performance per ASHRAE 52.2.



UV Light

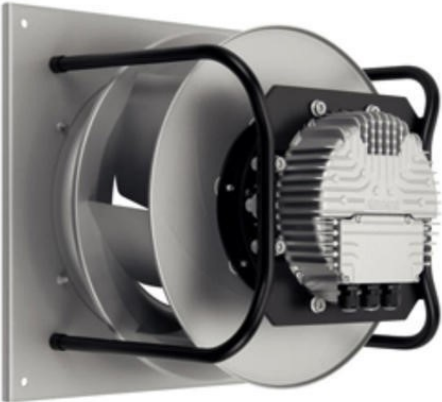
To removing common kitchen odors



Carbon Filters (Canisters)

Odor Control filter

- 18 inch



EC Fan - Loose Item

variable speed , UL listed , high static pressure & compact size Fan

Models

Model	Air Flow Rate	Unit Cross Section Size *		Filters Size	
	CFM	W mm	H mm	Filter Size WXH	Qty
ECO 2	2000	660	660	24 inch X 24 inch	1
ECO 3	3000	965	660	24 inch X 24 inch	1
				12 inch X 24 inch	1
ECO 4	4000	1270	660	24 inch X 24 inch	2
ECO 6	6000	1270	965	24 inch X 24 inch	2
				24 inch X 12 inch	2
ECO 8	8000	1270	1270	24 inch X 24 inch	4
ECO 9	9000	1880	965	24 inch X 24 inch	3
				24 inch X 12 inch	3
ECO 12	12000	1880	1270	24 inch X 24 inch	6
ECO 18	18000	1880	1880	24 inch X 24 inch	9
ECO 21	21000	2185	1880	24 inch X 24 inch	9
				12 inch X 24 inch	3
ECO 24	24000	2490	1880	24 inch X 24 inch	12
ECO 30	30000	3100	1880	24 inch X 24 inch	15

* Actual Sizes to be confirmed at Technical Drawing

Unit Arrangement



Unit Sections

- 02Inch Pleated Filter M8
- 15Inch Bag Filter M15
- ESP
- UV Light
- 18Inch Canisters- Carbon Filter
- EC Fan

Model	Unit Size *		
	W mm	H mm	L mm
ECO 2	660	660	3100
ECO 3	965	660	3100
ECO 4	1270	660	3100
ECO 6	1270	965	3100
ECO 8	1270	1270	3100
ECO 9	1880	965	3100
ECO 12	1880	1270	3100
ECO 18	1880	1880	3100
ECO 21	2185	1880	3100
ECO 24	2490	1880	3100
ECO 30	3100	1880	3100

* Actual Sizes to be confirmed at Technical Drawing



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