Oil fume and odors produced by
sautéing, cooking, frying, deep-frying and roasting
OUT!

Patent Certificate

* Patent applications of various countries are pending. Counterfeiting is not allowed. *

A-Fu Cooking Fume Air Purifier

All-in-one for oil fume processing
air purification/deodorization

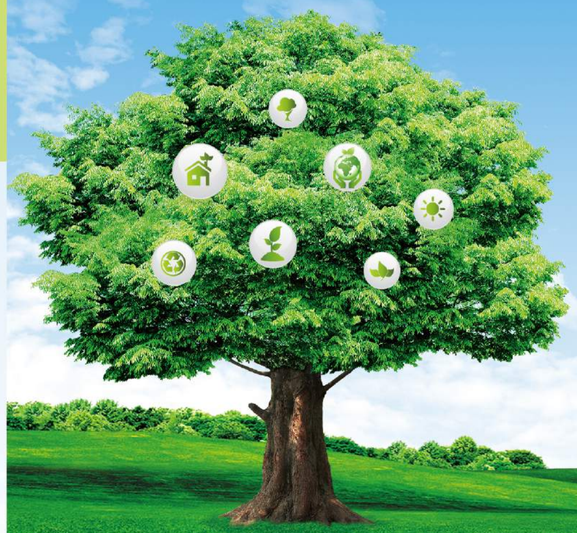
The best choice for oil fume purification of the small chain restaurants and food stands!

99%

Product features

- The best purification efficacy of oil fume is up to **99%**
- No exhaust pipe extension is needed.
- The product can filter **PM2.5** and meet the environmental protection emissions standards.
- Low power, high performance, energy saving and carbon emission reduction.
- Simple installation, easy movement, not being limited by the business space.
- Advanced purification technique. Professional service team. **100%MIT**
- Completely solve all problems caused by cooking fume.
- Protect the health of the caterers, employees and customers.

Nature, Environment Protection, New Technology



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A-Fu

A-Fu Cooking Fume Air Purifier

Oil fume filtration for no pollution and zero emission

Beautifying the Earth • Energy saving
Protect environment to give you a refreshing world

www.afu-filter.com

Effects of Cooking Oil Fume

There are more than one hundred chemicals harmful materials in the oil fume produced by processes of sautéing, cooking, frying, deep-frying and roasting the ingredients, including "particulate matter (PM)" and "polycyclic aromatic hydrocarbons". "Polycyclic aromatic hydrocarbons" smell like aroma and keep people unaware of the continuous damages caused by these harmful chemicals. Cooking oil fume not only produces pollutions for the environments but also usually causes health problems, such as respiratory diseases, genetic mutations, cardiovascular diseases and lung cancer, for those caterers, residents nearby and customers that have been chronically exposed to the chemicals of oil fume.

Effects of various particle sizes distribution on respiratory system

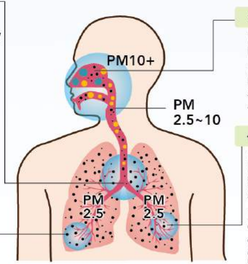
Particles smaller than PM2.5
Particles with diameters are less than or equal to 2.5 micron in the air

PM2.5~10
Particles with diameters between 2.5 and 10 micron in the air

PM10+
Particles with diameters are equal to or more than 10 microns in the air

2.5~10μm
Distribution features: Deposit in the upper nasal cavity and lower respiratory tract.
Effects: Cause fiber paralysis, excessive secretion of bronchial mucosa, induce hyperplasia of mucous gland, cause reversible bronchospasm , inhibit deep respiration and extend to bronchiole.

<0.1μm
Distribution features: Deposit in the alveolar tissue
Effects: Promote the significant increase of macrophages in lung, form emphysema and cause alveoli damages.



>10μm
Distribution features: Deposit in the nasal cavity.
Effects: May result in symptoms like allergic rhinitis, cough and asthma.

<2.5μm
Distribution features: Less than 10% deposit in bronchus and about 20~30% in alveoli.
Effects: Cause the symptoms, such as chronic bronchitis, bronchiolar ectasis, pulmonary edema or bronchial fibrosis.

★ The air quality standards and objects of PM2.5 of World Health Organization (WHO) and various countries

⊙ Source of information: Environmental Protection Agency, Taiwan, R.O.C.

Air quality standard		WHO				EU	USA		Canad	Australia	Japan	South Korea	Hong Kong	China		Thailand	Taiwan
		IT-1	IT-2	IT-3	AQG		Federal	California						1st Grade	2nd Grade		
PM2.5 μg/m³	Annual average	35	25	15	10	25	12	12	10	8	15	25	35	15	35	25	15
	Average of 24 hours	75	50	37.5	25	-	35	-	28	25	35	50	75	35	75	50	35

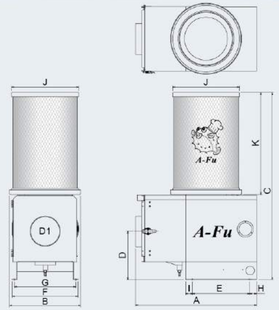
When (the concentration of) PM2.5 is more than 35 μg/m³, it may be harmful to human body.

⊙ Source of information; WHO

Grade of Index	Classification	Concentration μg/m³	Risk	Effects of air quality for health
1	Low	0~11	Low risk	The average daily concentration should be less than 10μg/m³ annually according to WHO regulations. It should not be more than 12μg/m³ in USA.
2	Low	12~23	Alert	The highest daily PM2.5 concentration should not as high as 35μg/m³ according to WHO regulations.
3	Low	24~35		
4	Medium	36~41	High alert	It is harmful to the health of people with sensitive constitutions, such as the elder, children, and patients with lung and cardiovascular diseases.
5	Medium	42~47		
6	Medium	48~53		
7	High	54~58	Harmful	It is harmful to the health of everybody.
8	High	59~64		
9	High	65~70		
10	Very high	>71	Dangerous	It is highly harmful to the health.

* When the concentration segment of PM2.5 increases 10 μg/m³ , the risk of mortality increases 8%, 6% and 4% for lung cancer, cardiopulmonary diseases and total mortality, respectively.

Machine Specifications and Sizes



Model	Main Power	Motor	Air Flow Rate m³/min (50Hz/60Hz)	Static Pressure (kPa) (50Hz/60Hz)	Noise Value db(A)	The recommended width for hood (meter)	The recommended depth for hood (cm)	Weight (kg)	Air Inlet Port (mm)
AFu-20	Three-phase AC220V	0.4 KW	19/22	0.91/1.41	68/72	1	60	47	Ø150
AFu-30		1.15 KW	31/35	1.15/1.65	70/74	1~1.5 ＊1 m is the best		65	Ø200
AFu-40		1.5 KW	45/53	1.45/1.95	71/75	1.5~2 ＊1.5 m is the best		80	Ø250

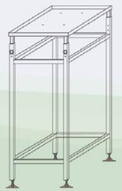
＊The recommended width and depth are for reference, the actual values will be decided according to the pollution source (fume volume) production in different catering categories, such as Sichuan cuisine and stir-fried food, and on-site inspection. Then design the proper models and hoods to cope with the actual requirements.
＊It is recommended that the distance between hood and bench (pollution producing area) should be no more than one meter. (It depends on the actual situations of various catering categories.)
＊The specifications and sizes listed above should cope with inverter for the electrical phase conversion. The air volume may be adjusted to achieve the best energy saving efficacy according to the actual business conditions.

Model	A	B	C	D	D1	E	F	G	H	I	J	K
AFu-20	598	350	927	239	Ø150	280	325	302	35	35	Ø330	507
AFu-30	751	430	1003	289	Ø200	388	420	368	25	25	Ø410	607
AFu-40	777	503	1149	310	Ø250	388	480	428	26	26	Ø480	607

＊Due to the requirements of function improvements, the sizes or contents may be changed without notice. Please refer to the new catalog or new quotation.

Optional

Vertical stand
> Minimal height: 1100 mm
> Flexible extension: 1800mm



Activated carbon filter cartridge (outer barrel)
Use with activated carbon cartridge will achieve more superior effects in deodorization and filtration.

Testing Values Example

Actual testing of barbecue oil fume emission

Actual testing values of barbecue oil fume emission

Emission value of **barbecue oil fume:**
2298.6 μg/m³

Emission value of **barbecue oil fume after purification:**
38.9 μg/m³

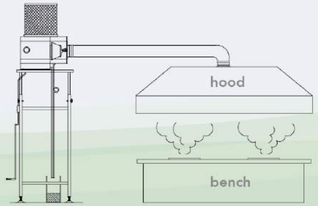
Emission standards of catering oil fume

China-oil fume emission standards for catering industry DB11/1488-2018

Scale	Small	Medium	Large
Maximal permitted emission concentration	1.0		

◈ Unit : mg/m³ (milligram/cubic meter)
＊Emission standard for catering industry: 1.0mg/m³ = 1000μg/m³

Installation Illustration



Installation