

AIR-O-FILTER ENVIRONMENT SYSTEMS, INC.

OILSERVE

บริษัท ออยเซิร์ฟ จำกัด
OILSERVE CO., LTD.

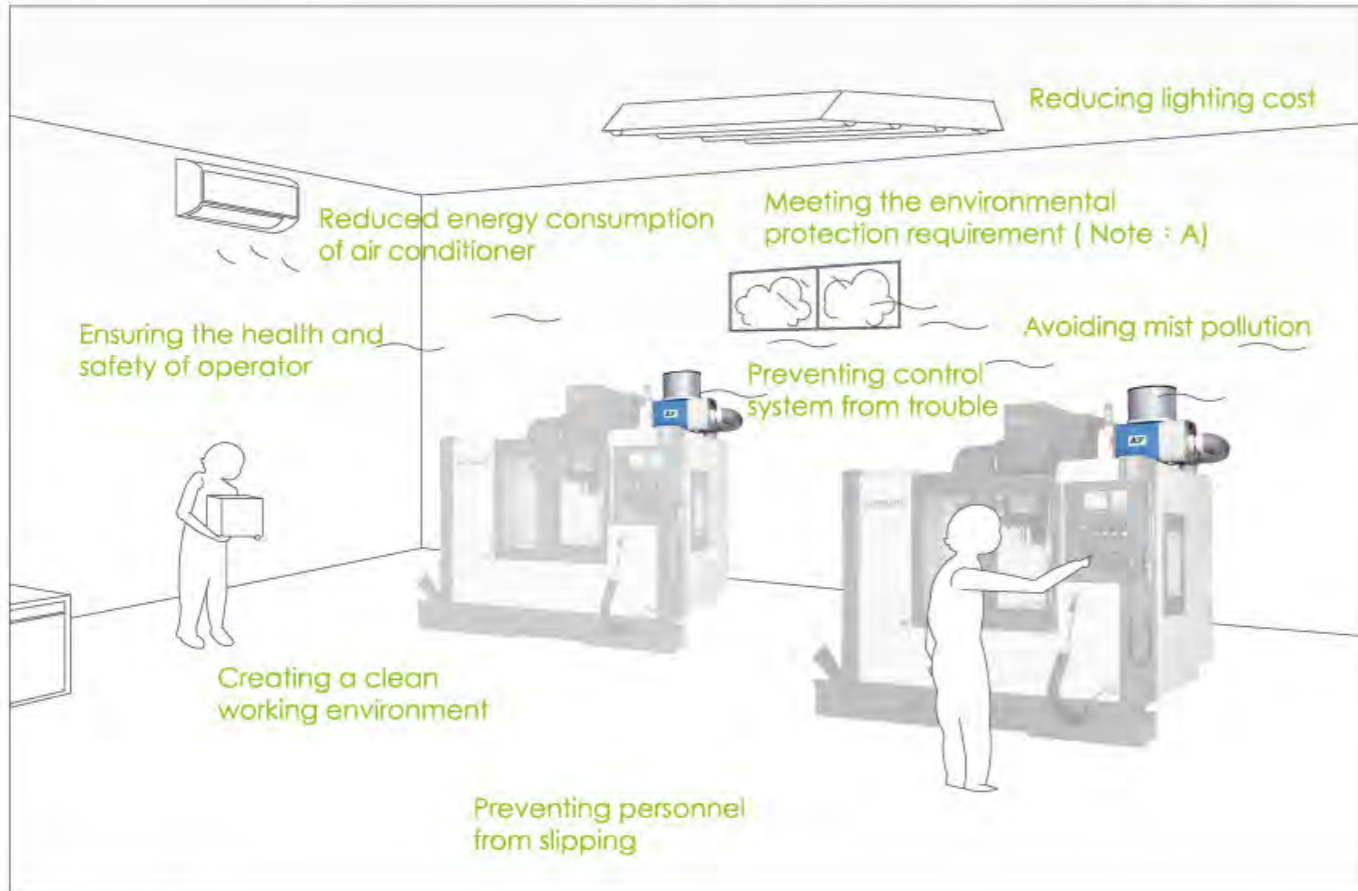
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PATENT PENDING

OIL MIST COLLECTORS

AF Series

Anyone who produces coolant mist and smoke knows the problems that arise if you don't effectively capture and filter it. From oil puddles on machinery and floors to the blue haze across the plant, oil mist and smoke become maintenance issue. Oil residue is costly to clean up, may cause problems with equipment that are costly to repair.



Note : A

What Are Fine Particulate Matters?

"Fine Particulate matters" are particles that float in the air with particle size less than 2.5 μm (Hereafter called as PM2.5)

Where Do Fine Particulate Matters Come From?

PM2.5 particles are created by nature and human behavior. Natural sources include volcanic eruptions and the earth's crust rocks. Human behavior includes burning, such as petrochemical fuel, industrial discharge, and moving waste gases, etc. PM2.5 consists of various chemical materials. After photoreaction, it may create original organic carbon and regenerate organic carbon, elementary carbon, sulfuric acid, nitrate, and other ionic matters.

APPLICATION EXAMPLES

Various types of machines and tools

NC/CNC lathes, multi-purpose lathes, machining centers, NC milling cutters, milling cutters, gear hobbing machines, grinding machines, automatic lathes, drill presses, broaching machines, transfer machines, gun drills

Molding machines

Die-casting machines, injection molding machines (resins), large presses

Additional applications

Molding equipment, quenching machines, induction shrink fit equipment, rolling mills, rolling machines, header units, nut formers, lens chamfering, lens grinding, ceramic processing, glass processing, washer units, coating equipment, air blowers, for food, pharmaceuticals and cosmetic products.

The oil mist collector AOF is specifically designed for machine tools and developed for the elimination of mist, smoke and odors typical of wet machining operation in metal cutting applications. With its small and compact sizes the AOF integrates perfectly with the machine tools design.

- Patented conical filter technology
- Requires far less maintenance or filter replacements than existing technology
- Filter life 1 – 5 years
- Designed in Europe. Manufactured, Test and Assembled in Taiwan
- 99.97% efficient
- Price competitive with foreign manufacturers
- Its clogging is monitored with a pressure gauge
- Large selection of capacities

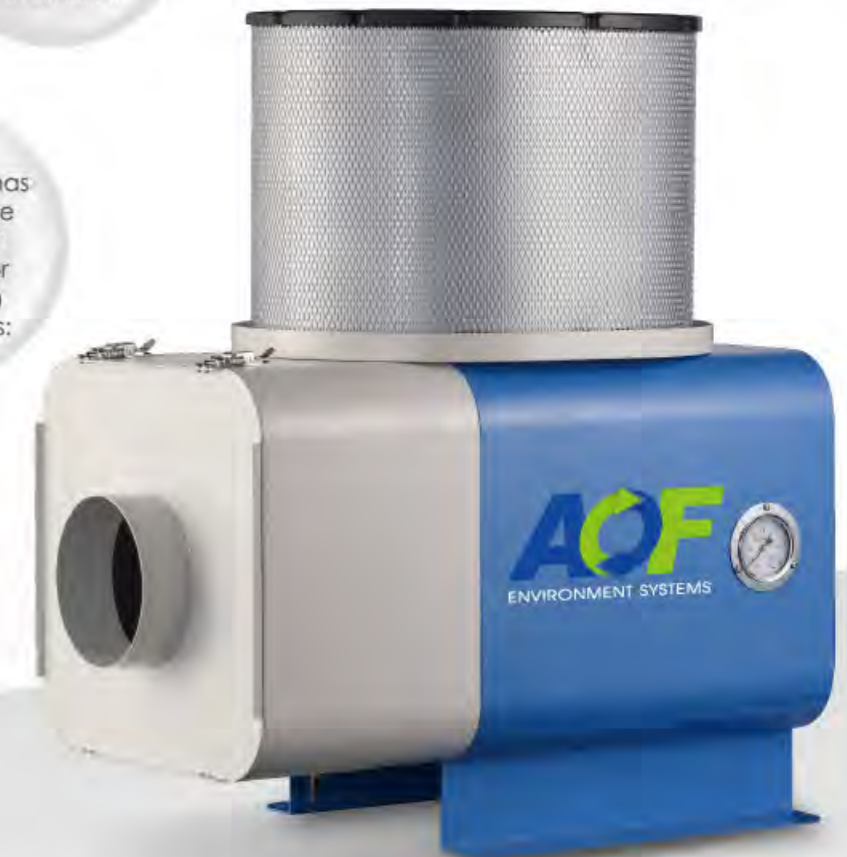
Filtration Module: HEPA removal efficiency To eliminate dry smoke typical of certain applications where straight oil is utilized.

The efficiency level guaranteed is **99.97%** MPPS according to E12/HEPA.

CARBON Filtration Module: activated carbon filtration (option)

The AOF series has a complete line of dedicated accessories for installation on machine tools:

To eliminate odors and VOC, the filter cells can be regenerated simply by replacing the carbon.



- Electrical motors meet current efficiency standards EISA 2007 / IE3 and available as either: 220V / 380V (special voltage are available upon request)

SERVICES

- AOF Filtration Systems presence in the market is not limited to the supply of filtration units but, upon request, we can provide a complete consulting service related to the evaluation of the air quality in the workplace.





AOF'S CUTTING-EDGE TECHNOLOGY

Integrated with Several Patented Technologies

AOF applied advanced air-purified technology to develop the high-performance oil mist collector, which is excellent for filtering oil mist, haze, aerosol and smoke. The oil and air separation design follows the European standard. The oil mist collector integrates many innovative designs and provides the best possible oil mist filtration and collection effect.

COMBINES VARIOUS EXCLUSIVE DESIGNS IN ONE UNIT. ALLOWS YOU TO EXPERIENCE UNPRECEDENTED OIL MIST FILTRATION AND COLLECTION PERFORMANCE.

99.97%~99.99% Filtrating Efficiency Surpass European Environmental Protection Standard

AOF oil mist collector features higher air flow rate, temperature resistance as well as acid/alkali-resistance. Its filtrating efficiency many reach **99.97%~99.99%**. In addition, **an actual environmental protection compliance test indicates that it can reach E11, E12, surpassing the European standard of F8, F9.** All these provide a proof that AOF oil mist collector is unique in efficiency and zero pollution.

CIRCULAR AND ELLIPTIC SHAPE

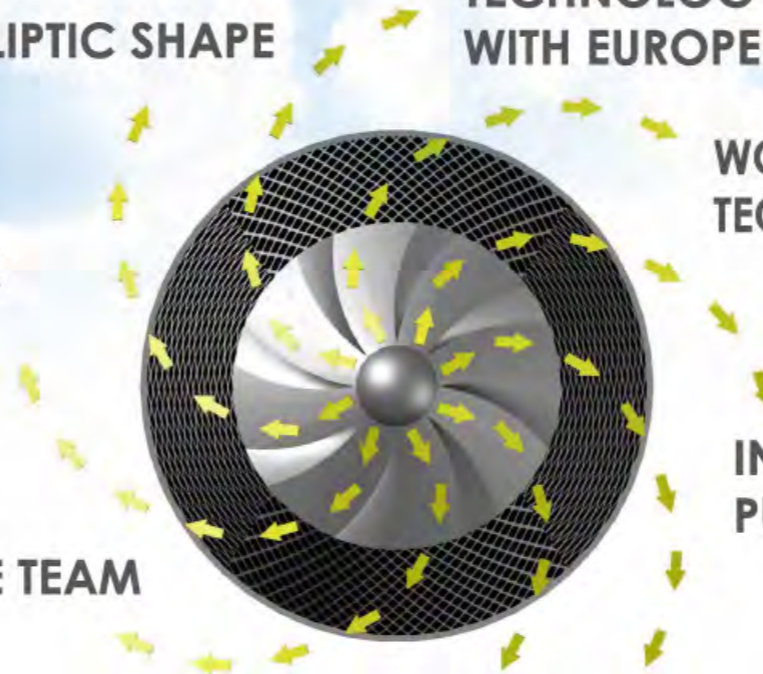
TECHNOLOGY COOPERATION WITH EUROPE

DEDICATED TO AIR PURIFICATION TECHNOLOGY

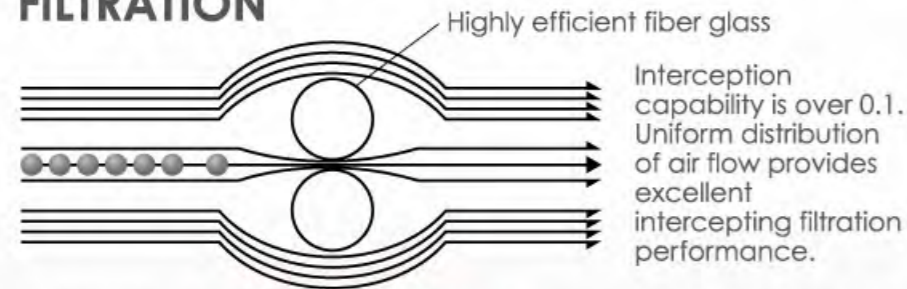
WORLD-CLASS TECHNICAL CAPABILITIES

HIGHLY EXPERIENCED TECHNOLOGY/SERVICE TEAM

INNOVATIVE PATENTED PURIFICATION TECHNOLOGY



INTERCEPTING FILTRATION



COMPREHENSIVE RANGE OF PRODUCTS

TESTED ACCORDING TO EUROPEAN STANDARDS



Filtrating Area increased by 20% (compared to general round after-filter)

- Oil Capture Efficiency **99.97~99.99%**
- Filtrating Accuracy **0.01** micron
- The AOF purification equipment works with the principle of **air excitation**→**mitigation**→**filtration**. This may effectively the settlement speed of oil mist, smoke and haze, and exhibit high efficiency and high accuracy features.

- Designed with **multi-layer filtration** to thoroughly capture fine particles.
- Interception capability is over **0.1**.



4-Way Filtering system

The innovative flying saucer structure with **70-degree** design applies the wind shear principle to completely separate oil mist, smoke, haze and toxic aerosol.

Filtering oil mist/water mist particle $\geq 2 \mu\text{m}$



8-Blade Disk

The 8-blade disk sucks fine particulate matters and works with the **tornado principle** to condense big particles into oil drops for recycling.



After-filter (600mm long) for oil based coolant

AM series (high efficiency type)

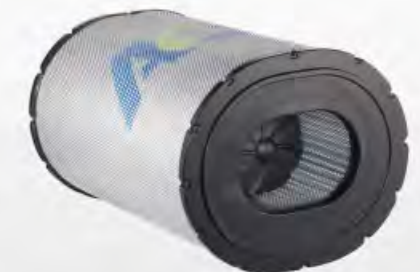
Filtering oil mist, particle $\geq 0.01 \mu\text{m}$



After-filter (300mm long) S series (for soluble coolant)

Filtering water mist, particle $\geq 0.5 \mu\text{m}$

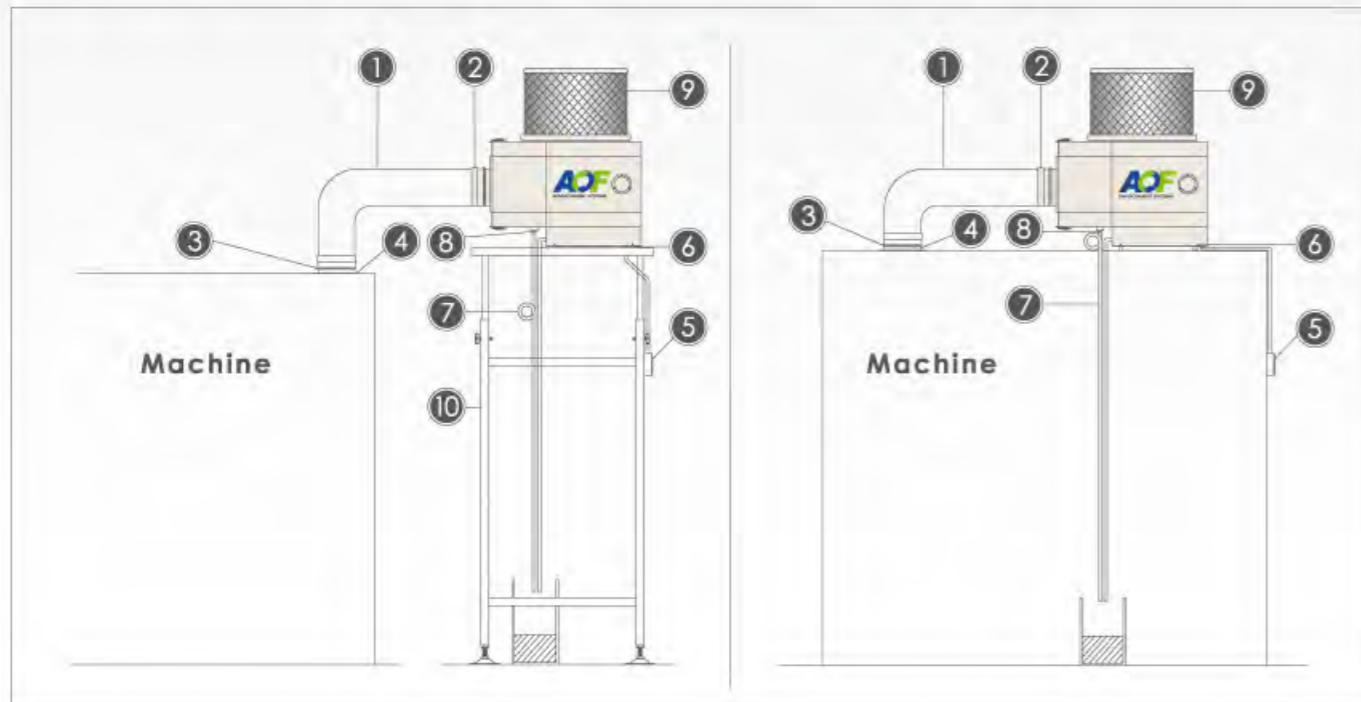
P series (for oil-based coolant) Filtering water oil, particle $\geq 0.03 \mu\text{m}$



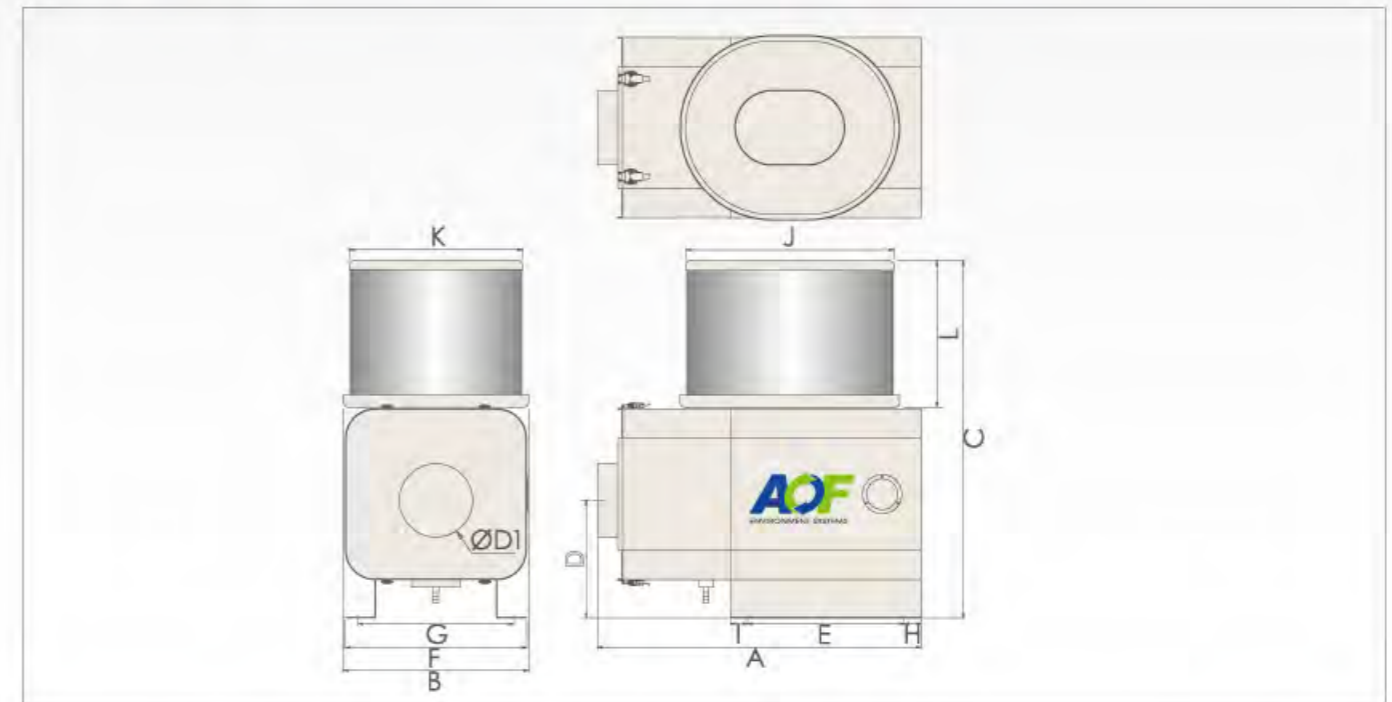
After-filter (600mm long) for oil-based coolant special design with **20%** more filtering area.

AL series (Long-acting type)

Filtering oil mist, particle $\geq 0.02 \mu\text{m}$



NO.	Part Description		AF-10	AF-20	AF-30	AF-40
1	Flexible hose	Type	H-150	H-150	H-150	H-150
		Outside dia.	Ø150	Ø150	Ø200	Ø250
2	Sleeve for flexible hose	Type	HC-150	HC-150	HC-200	HC-250
		Outside dia.	Ø150	Ø150	Ø200	Ø250
3	Flexible hose clamp	Type	HB-165	HB-165	HB-215	HB-265
		Outside dia.	Ø150	Ø150	Ø200	Ø250
4	Air inlet adaptor	Type	A-150	A-150	A-200	A-250
		Outside dia.	Ø150	Ø150	Ø200	Ø250
5	Power switch	Type	MS-330			
		Outside dia.	60 x 53 x 103			
6	Anti-vibration mount	Type	AV-832			
		Outside dia.	M8-Ø32 x 32L			
7	Oil drain hose	Type	DH-300			
		Outside dia.	Ø12			
8	4-Way Filtering system	Type	PF-250	PF-250	PF-300	PF-300
		Outside dia.	Ø250	Ø250	Ø300	Ø300
9	After-filter	Type	S: Standard type, 300mm long AL: long-acting type, 600mm long P: Practical type, 300mm long AM: high efficiency type, 600mm long			
		Type	SU-1800			
10	Telescopic stand	Type	SU-1800			
			Height 1100mm, extension 1800mm			



MODEL	Power Source	Motor	Performance		Noise Value db(A)	Filtering Effect	Weight(Kg)	Air Inlet Port	Applicable Space
			Air Flow Rate(m ³ /min)	Static Pressure(kPa)					
AF-10P	AC220V /	0.2KW	11 / 14	0.78 / 1.15	60 / 63	99.97% EU E12 Standard	39	Ø150	<4m ³
AF-20P	380V	0.4KW	19 / 22	1.71 / 2.06	66 / 71				
AF-30P	3Ø	0.75KW	31 / 35	1.92 / 2.35	68 / 73				
AF-40P	50/60HZ	1.15KW	39 / 43	2.02 / 2.85	70 / 75				

■ Above figures are tested with the models of P series in 220V/60Hz power source.

MODEL	A	B	C	D	D1	E	F	G	H	I	J	K	L
AF-10P	603	379	726	231	148	300	335	283	25	25	426	355	313
AF-20P	643	379	736	231	148	320	350	298	25	25	426	355	313
AF-30P	765	432	808	290	200	388	420	368	25	25	492	408	313
AF-40P	805	432	838	305	250	428	450	398	25	25	492	408	313

