



Green, Eco-friendly, Revolutionary
AOF Environment Systems



AIR-O-FILTER ENVIRONMENT SYSTEMS, INC.

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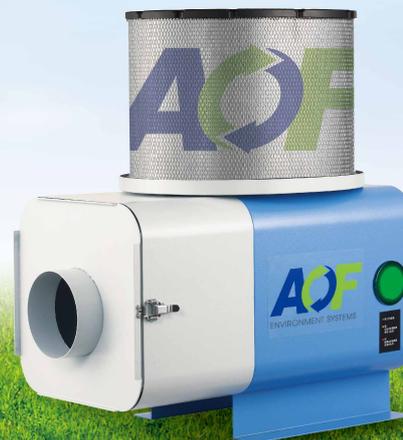
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**OIL MIST
AIR CLEANER**



AF Series

2025.04E4

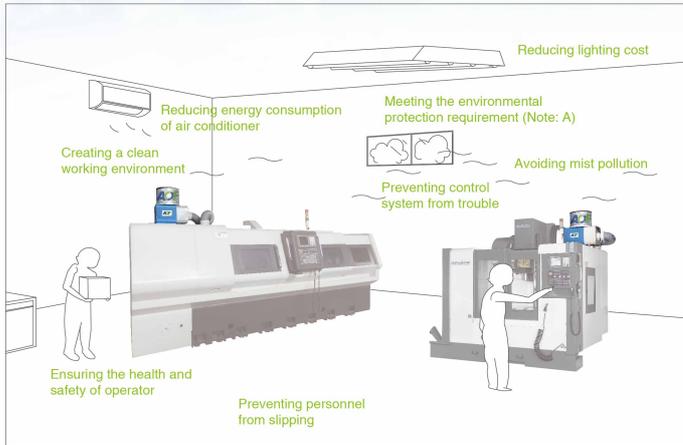
AIR FILTRATION SYSTEM

AIR-O-FILTER TECHNOLOGY

Till this day, manufacturing facilities are pointed out as being the main source of coolant mist and various air pollutant emissions. It not only impacts the environment around us, but also represents a threat to public health. With today's collective awareness for sustainable development, we can create a cleaner, safer and greener place for tomorrow. The Air-O-Filter is going to help you in that endeavor. With its easy-to-install design, this system offers a cost-effective and low energy solution for greater working environment, meeting all regulatory and industry standards.



INTERNATIONAL PATENTS PENDING



Fine Particulate Matter (PM2.5)

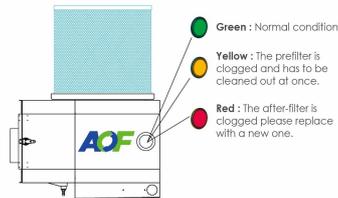
- What is Fine Particulate Matter?**
"Fine Particulate matter" consists of fine particles that float in the air with a size less than 2.5 μm (Hereafter called PM2.5).
- Where Does Fine Particulate Matter Come From?**
PM2.5 particles are created by nature and human behavior. Natural sources include volcanic eruptions and the earth's crust rocks. Human sources include burning processes, such as petrochemical fuel, industrial discharge and moving waste gases. PM2.5 is composed 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 and gun drills.
- Molding machines**
Die-casting machines, injection molding machines (resins) and 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, pharmaceutical and cosmetic products.

LED An Intelligent Device for Error Alert

Patent Number
M556176 / M675080
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- ★ INTELLIGENT CONTROL** → The unit is connected with the machine, so that the operator can realize the current status of the oil mist collector through the indication of LED lamps.
- ★ INTELLIGENT SENSING** → With periodic cleaning, maintenance and replacement of filter element to ensure efficiency of smoke removing and energy saving.
- ★ INTELLIGENT ALERT & REMOTE MONITORING** → APP remote monitoring can be conducted through a computer, mobile phone or tablet.
- ★ EASY TO INSTALL** → It provides dry contacts for PLC, allowing for direct installation.
- ★ BUILT-IN WIFI** → Directly connecting to APP is possible through the routing cloud.

Quality Guarantee

- Designed in Europe.
- Manufactured, tested and assembled in Taiwan.
- The guaranteed level of efficiency is **99%~99.97%**

Services

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



- Electrical motors meet current efficiency standards EISA 2007 / IE3 and are available in: 220V / 380V. (Special voltages are available upon request)

AOF'S CUTTING-EDGE TECHNOLOGY

Integrated with Several Patented Technologies

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

99%~99.97% Filtrating Efficiency Surpasses European Environmental Protection Standard

AOF oil mist air cleaner features higher air flow rate, greater temperature resistance as well as better acid/alkali resistance. Its filtrating efficiency reaches 99%~99.97%. It also strengthens the fact that AOF oil mist air cleaner is unique in terms of efficiency and zero pollution.

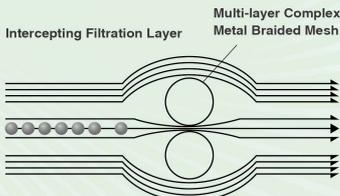
Pre-Filtrering System

Compared to conventional flat intercepting screen, the innovative patented design can increase **oil capture efficiency** by more than **50%**.
Patented No. D180368 / M503260



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

The innovative flying saucer Structure with **70° angular** design applies the wind shear principle to filtrate oil mist and water mist.



8-Blade Disk
The 8-blade disk is capable of catching fine particulate matters and works with the **tornado principle** to condense big particles into oil drops for recycling.

High Efficiency After-Filter

Filtrating area increased by 20% (Compared to general round after-filter)

- Oil capture efficiency: 99~99.97%
- The AOF purification equipment works with the principle of air excitation → mitigation → filtration. This may effectively enhance the settlement speed of oil mist, and haze, while exhibiting high efficiency and high accuracy features.

Patent Number M503259

S series (Standard type)

- For soluble coolant
- Filtering water mist, particle $\geq 0.5\mu\text{m}$



P series

(High efficiency type H13/HEPA)

- For oil-based coolant
- Filtering oil mist, particle $\geq 0.03\mu\text{m}$
- Can filter oil smoke PM2.5



THE FUTURE OF OIL MIST FILTRATION IS HERE



AOF is specifically designed for machine tools and developed for the elimination of mist and odor, typical of wet machining operations in metal cutting applications.

UNIQUE DESIGNS IN ONE UNIT EXPERIENCE UNPRECEDENTED PERFORMANCE

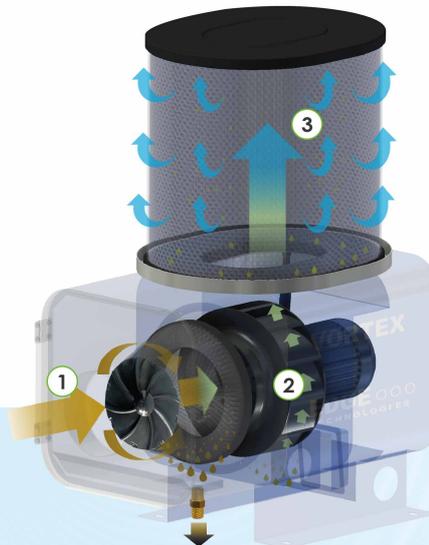


*Easy-to-Read gauge is (Optional)



FEATURES

- Patented conical filter technology.
- Large selection of capacities.
- The AOF series has a complete line of dedicated accessories for installation on machine tools.
- Requires far less maintenance or filter replacements than existing technology.
- Price competitive with foreign manufacturers.
- Equipped with an AI smart device with LED malfunction reminding. It can detect whether the air suction port is blocked or not, or cleaning after filter replacement is required, or not.
- Filter life is about 1 to 3 years.
- Filtration Module: HEPA removal efficiency eliminates oil mist, typical of certain applications where straight oil is utilized.
- CARBON Filtration Module: activated carbon filtration to eliminate odor and VOC, the filter cells can be regenerated simply by replacing the carbon. Its clogging is monitored with a pressure gauge. (Optional).



Oil Drain Outlet:
Precipitated droplets are collected and returned to the coolant tank.

- 1st - Stage Pre-Filtrering System
- 2nd - Stage Airflow
- 3rd - Stage After-Filter

