



# Stay Clean & Green

Clean Air - Healthy Work Environment - Low Carbon Footprint



**OIL MIST  
AIR CLEANER**

# Air pollution - An invisible killer

## About PM2.5

It may come to your attention that smog has become one of the top human health hazards all over the world. In the past few years, levels of smog in different areas are on the increase, resulting in the deterioration of air quality and elevated risk of our health. It raises people's awareness of respiratory care. PM2.5 is a main component of smog among other substances. PM2.5 refers to particles less than or equal to 2.5 micrometers in diameter, which can penetrate deeply into our lungs, irritating and corroding the alveolar wall, and consequently impair lung function.

## PM2.5 Causes Lung Cancer

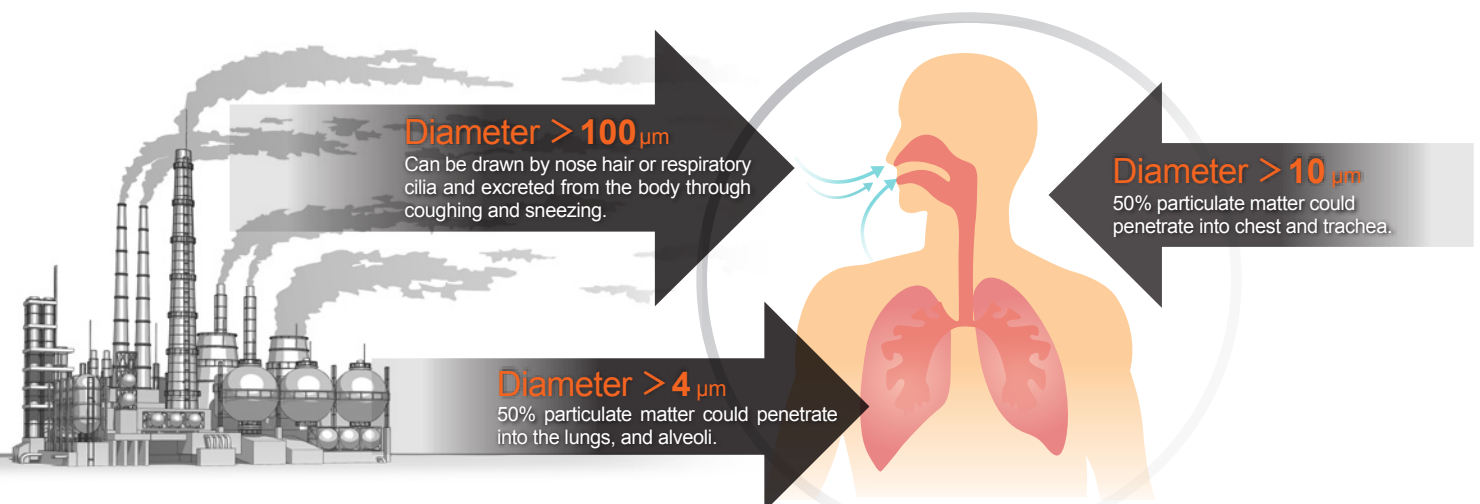
PM2.5 is mostly from anthropogenic emissions. It can also be formed with the chemical reactions of gases, such as sulphur dioxide (SO<sub>2</sub>) and nitrogen oxides (NOx: nitric oxide, NO plus nitrogen dioxide, NO<sub>2</sub>). These are called secondary particles. Measures to reduce the emissions of these precursor gases are therefore often beneficial to reduce the overall level of PM2.5.

Cancer has been the leading cause of death in Taiwan for years. The death of cancer reached 47 thousands in 2016, which indicates there are 131 people who die each day of some forms of cancers, especially lung cancer - it is on the top of the killer list.

The smoking rate in Taiwan has been declined for years. However, the cases of lung cancer have been increased year after year. Over high PM2.5 concentration in the air is seen as one of the major causes.

According to the data published by the World Health Organization, every 10µm/m<sup>3</sup> of PM2.5 concentration increases 6% of mortality rate.

**Offering you a healthier work environment,  
is the reason why we develop the KOTON Oil Mist Cleaner.**



## Health Risks of PM2.5

Particulate matter can travel into the respiratory tract, different diameter particulate matter with different effect of respiratory system.

Source: [www.ksepb.gov.tw](http://www.ksepb.gov.tw)



Level of PM2.5 Pollutant	PM2.5 (Concentration (µg/m <sup>3</sup> ))	Activity Suggestion
Low	0~35	Fair air quality. No impact on human activities.
Middle	36~53	Outdoor activities can be continued. However, adults or children who have heart, lung, or cardiovascular disease should reduce outdoor exposure.
High	54~70	Outdoor activities should be avoided if people, especially children, have a needle-in-the-eye syndrome, a bad cough, or a sore throat.
Very High	> 71	Anyone who has a needle-in-the-eye syndrome, a bad cough, or a sore throat should avoid physical activities and remain indoors.

# OIL MIST AIR CLEANER



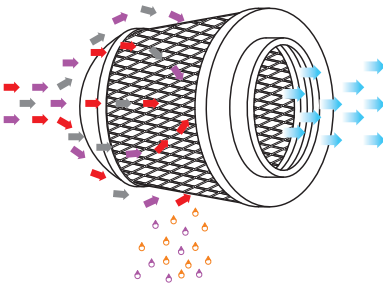
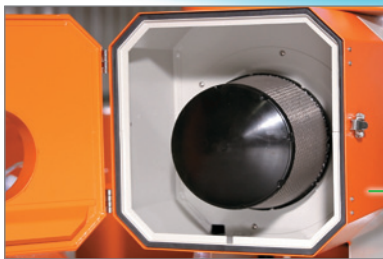
Low Carbon Footprint



Clean Air

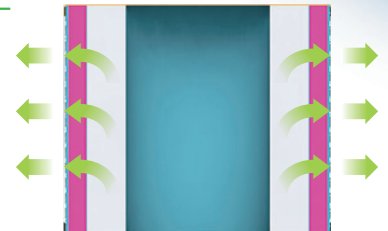


Environmental Recycling



## Pre-Filtration System

- Effective, low-drag pre-filter for air/oil separation
- Separates oil droplets from the air and returns 95% of the oil to the machine
- Stainless and washable

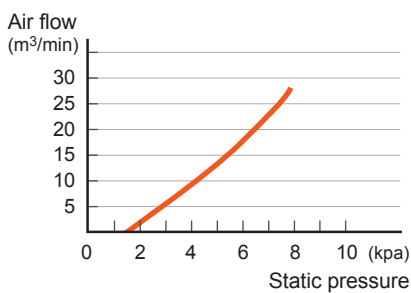


## High Efficiency Air Filter

- European H11 HEPA-Standard
- Cylindrical, multi-layer design with increased filter surface area
- High density micro-fine fiberglass elements
- Efficiently removes up to 99.5% of PM2.5 particles
- Tool-free filter change

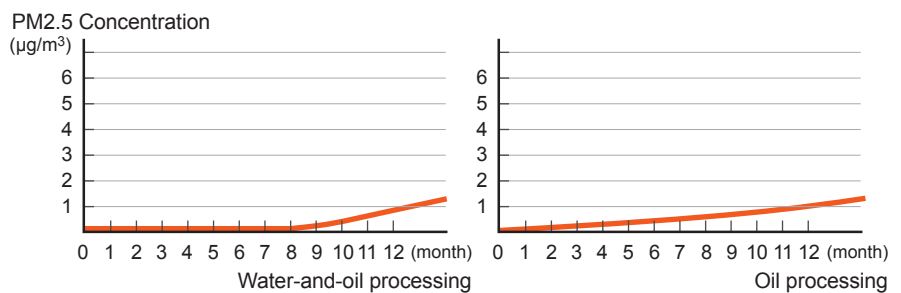
## Unique Fan Design

- Unique fan design & efficient compact motor reduce energy consumption



Suction volume graph of pre-filter

It is a KF-20E estimated result.



Filtrate PM2.5 graph of after-filter

Test conducted in the water-oil processing machine, after 8 months, PM2.5 is still 0.

● This is the result of testing in terms of KF-20E, all the reported data can be varied due to different delete conditions.

# OIL MIST AIR CLEANER

## On-site Testing



### Airflow w. HEPA-Filter Attached

Real test, with loading the air flow of **13~14** m/sec.



### Airflow w/o HEPA-Filter

Real test, without loading the air flow of **20~23** m/sec.



▶ Video



### Oil Recycling System

KOTON Oil Mist Cleaner separates oil mist from the air.

**60** % of the used oil is collected through the process in order to eliminate unnecessary cost.



## Noise Test

The decibel recorded during the noise test shows the value produced by KOTON Oil Mist Cleaner is lower than average value.



▶ Video



Air concentration of PM2.5, near filter **0.0** ug.

## Filter Efficiency Test

The on-site test conducted through a third-party factory gives the results that over **99.5%** of **0.3** μm particles are filtered and collected. What's more, KOTON Oil Mist Cleaner can operate on its own. Long-term use of it brings factories a better indoor air quality.



▶ Video



▶ Video

# Accessories

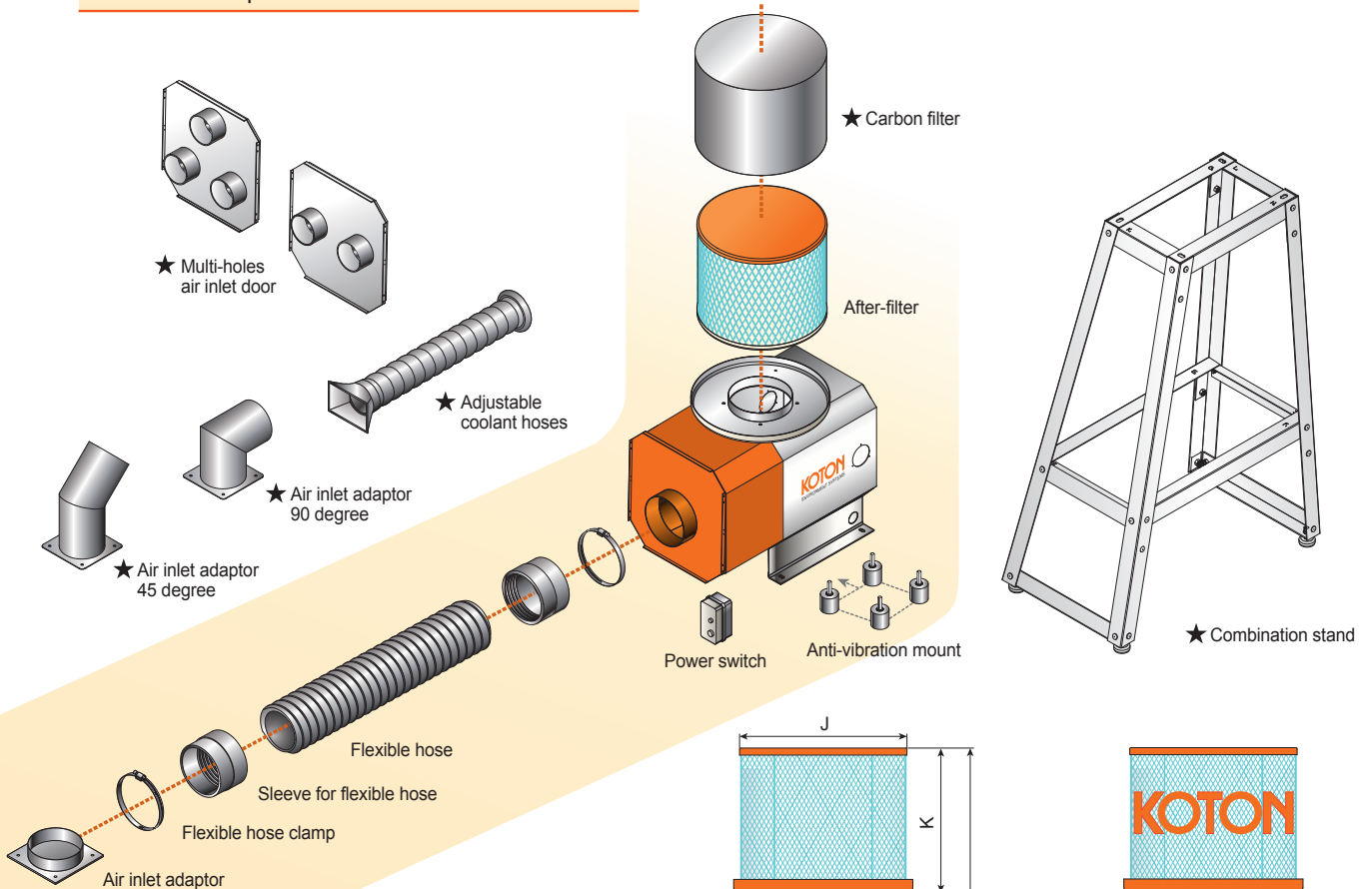
## Standard Accessories

✓ Pre-filter	✓ Power switch
✓ After-filter	✓ Oil resistant cable
✓ Sleeve for flexible hose	✓ Flexible hose
✓ Flexible hose clamp	✓ Oil drain hose
✓ Air inlet adaptor	✓ Anti-vibration mount

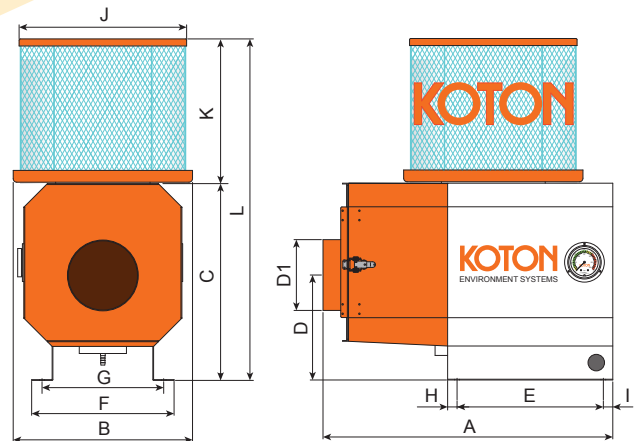
## Optional Accessories

★ Combination stand	★ Air inlet adaptor 45 degree
★ Adjustable coolant hoses	★ Carbon filter
★ Air inlet adaptor 90 degree	★ Multi-holes air inlet door

Using multi-holes will reduce the collection efficiency



## Dimensions



MODEL	Power Source	Output (KW)	Airflow (50/60HZ) m <sup>3</sup> /min		Static Pressure (mmAq)	Operating Noise dp(A)	Collection Efficiency	Weight (Kg)	Suction Inlet Diameter
			w/o HEPA-Filter	w. HEPA-Filter					
KF-10E	3-Phase AC380V	0.2	16.1/15	9.4/9	103/85	68/65	Up to 99.5% EU H11 Class	41	Ø150
KF-20E	or AC220V	0.4	18.3/18	10/11	134/149	75/71		46	Ø150
KF-30E	50/60HZ	0.75	27/29	20/222	165/185	78/73		63	Ø150

MODEL	A	B	C	D	D1	E	F	G	H	I	J	K	L
KF-10E	609	380	417	223	150	295	302	258	25	25	Ø360	310	727
KF-20E	633	380	446	236	150	310	327	283	25	25	Ø360	410	856
KF-30E	749	438	512	278	198	363	387	337	30	30	Ø435	410	922

Unit: mm

# Installations

KOTON Oil Mist Air Cleaner requires limited space due to its simplicity and compactness of installation. The installation is subject to users' environments. The product can either be installed on the top of the machine or be settled on the telescopic stand.



Installed on the top of the machine

Settled up on the combination stand

## Oil Mist Air Cleaner Installation Examples

- Machining factory
- EDM machining factory
- Petrochemical factory
- Punching factory
- Glass surface treatment factory
- Food processing and production factory
- Textile factory
- Electronic factory (clean room)

High efficiency, low noise, and excellent air purification create a healthy work environment.





# KOTON

TECHNOLOGIES

**KOTON TECHNOLOGIES CO., LTD.**

No. 8, Aly. 5, Ln. 280, Xizhou Rd., Shengang Dist.,  
Taichung City 42948, Taiwan

Tel: +886-4-2562-0557 Fax: +886-4-2562-0267

[koton@koton.com.tw](mailto:koton@koton.com.tw) [www.koton-edm.com](http://www.koton-edm.com)



www.koton.com.tw