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ACN001724-100E

**JU WEI MACHINERY CO.,LTD.**

**Oil Mist Air Cleaner**

## World-class Quality Level

With the aim to achieve a world-class quality level, JU WEI has passed world-renowned certifications like CE and ISO9001. From product design, materials receiving inspection, in process inspection to final inspection and test prior shipping, the entire quality control processes are conducted according to international standards.

- High-efficiency, low noise and air purification.
- Stainless steel twilled screen designed according to 3D hitting principle that provides optimal oil mist interception effect.
- Turbo type blade wheel features extra powerful centrifugal force and suction force, achieving exceptional oil throw-away performance.
- 3,500 rpm high speed motor enables the blade wheel to drastically increase centrifugal force during running.
- Special oil fluid separation design.
- The collected oil mist does not need to be further filtrated and can be re-used directly.
- Equipped with a filter screen life gauge that enables the operator to replace the filter screen at the correct moment.

### Applicable Industries

- Machining shop
- EDM machining shop
- Punching plant
- Petrochemical processing factory
- Glass surface processing plant
- Food processing plant
- Textile factory
- Electronic factory (Clean room)

### Applicable Machinery

- Machining center
- Electrical Discharge Machine
- CNC lathe
- CNC milling machine
- Grinding machine
- Drilling machine
- Plastic injection molding machine
- Other machining equipment



## Oil Mist Collectors & Air Cleaner

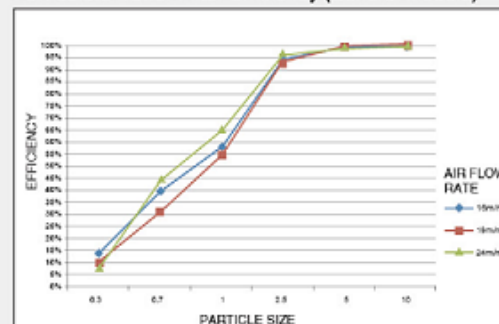
Oil mist collection and purification efficiency reaches over **99.9%**

Your No.1 Choice in Energy Saving & Carbon Reduction

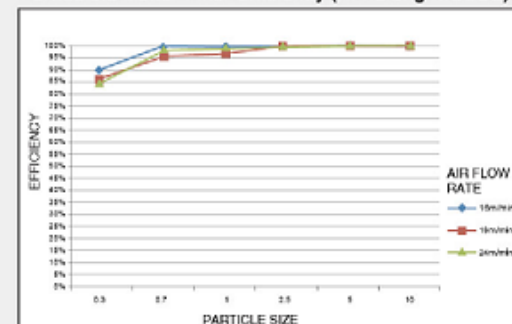


## Comparison Of Oil Mist Collection Efficiency

Particulate Matter Filter Efficiency (General Models)



Particulate Matter Filter Efficiency (Ri Hsiung AIOLOS)





## Oil Mist Collection And Air Purification Processes

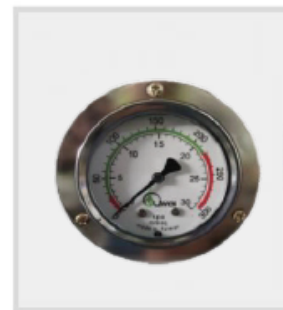
### Direct Interception Intercepts 70% of Oil Mist

- When oil mist streamlines the flow through the stainless steel filter screen at the front end, mist particles can be easily intercepted and collected.
- 3D hitting design.
- Stainless steel twilled screen can be washed and re-used.



### Diffusion Effect

- Once mist particles hit the stop plates, they may cause dispersed flow and diffusion, before being easily collected by a large area woven screen at the second stage.
- Oil mist hitting generates static electricity that absorbs oil mist, making oil droplet collection more convenient.

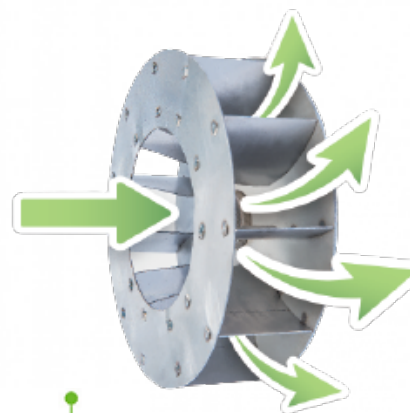
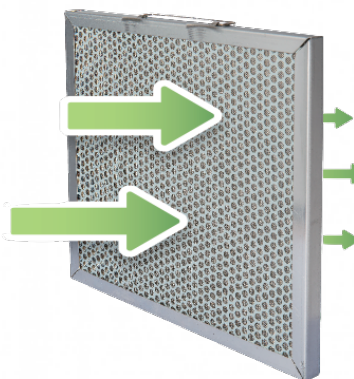
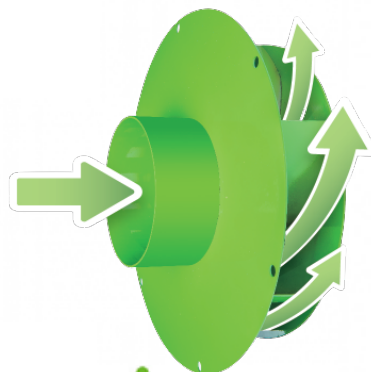


### Pressure Detection Gauge

The pressure detection gauge indicates the time when the filter screen needs to be cleaned or replaced. This reduces electricity consumption, while maintaining high efficiency oil mist removal.

### Inertial Hitting

- After mist particles flow through the filter screen, located at the front end, they hit the oil stop plates in the suction direction in order to be easily collected.
- Featured with tornado effect to dramatically increase filter efficiency.

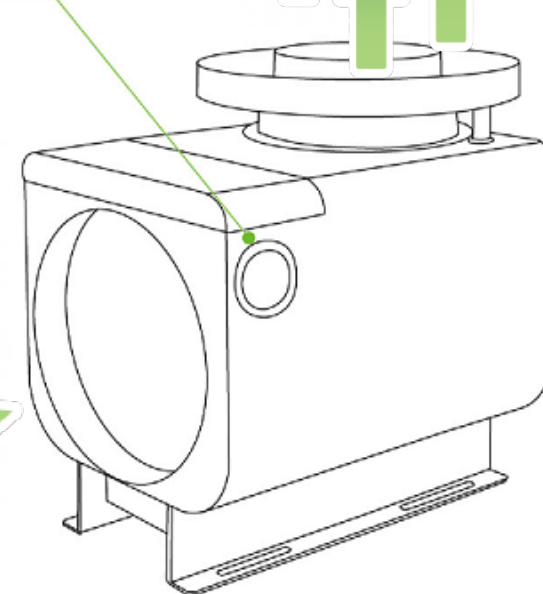
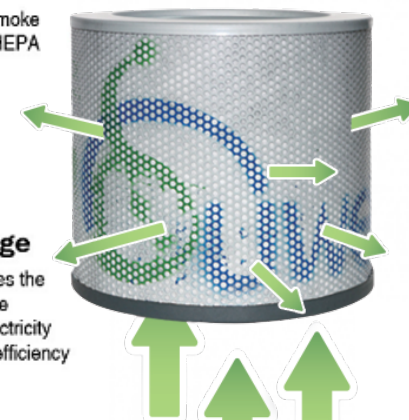


### Centrifugal Hitting Extra Powerful Centrifugal Blade Wheel

The turbo type blade wheel integrates innovative features such as extra powerful suction force and centrifugal force as well as high speed cyclone that allow oil mist to adhere on the internal walls. Then, mist particles are intercepted by the internal oil stop plates, before being collected.

### Final Filtration (Optional) Smoke Filtration

Although oil mist has been filtrated at various stages, there is still some smoke contained in the air. Such smoke can be removed with the use of a HEPA filter drum.



## Sophisticated Inspection Instruments

JU WEI's Q.C. department is fully equipped with a wide range of sophisticated inspection equipment with these inspection instruments, JU WEI's well-trained Q.C. personnel can rigorously inspect the performance of each oil mist collector and the level of particulate matters contained in the environment.

### Particulate Matter Content Inspection Instrument

Used for inspecting the existing amount of particulate matters in the air.



### Sound Level Meter

The sound level meter is applied for testing the noise level when oil mist collector is running.



### Air Flow Tester



### Vibration Tester

The digital type vibration tester is used to accurately inspect vibration condition when oil mist collector is running.



### VOC Inspection Instrument

It is applied to inspect various volatile organic compounds (VOCs) contained in the air, which are harmful to human health.



### Infrared Thermal Meter





## Legend of Filter Drum Configuration

### Applicable Environment for Two Types of Filter Drums:

#### 300mm Filter Drum:

This type of filter drum is perfect for water-based cutting fluid and light cutting applications. When water moisture and oil mist are generated during machining, a 300mm filter drum is recommended.

#### 600mm Filter Drum:

This type of filter drum is suitable for oil-based cutting fluid and heavy cutting applications. During heavy machining process, if massive oil smoke is generated in addition to water moisture and oil mist, a 600 mm filter drum should be applied.



#### Polyester Fiber at First Stage (For 300mm & 600mm filter drum)

It provides effective initial filtration by intercepting oil mist.

#### Resin Fiber at Second Stage (For 300mm filter drum)

Unlike conventional materials, this type of material not only effectively intercepts oil mist, but also allows the adhered oil mist to condense into oil droplets and fall naturally. This achieves efficient collection of oil mist for re-use.

#### 99% Glass Fiber at Second Stage (For 600mm filter drum)

The features of glass fiber are somewhat similar to the ones of resin fiber, but it still relies on imports due to cost factor and complicated production processes. Compared to the resin fiber, glass fiber can intercept oil mist to condense it into oil droplets. It is also capable of capturing up to 99.99% of particulate matters, making the filtrated air harmless.

#### High Efficiency HEPA Filter Material at Third Stage (For 300mm & 600mm filter drum)

After oil mist has been filtrated by the fiber filter materials at previous two stages, the final filtration process is then conducted by a high efficiency HEPA filter material that removes the remaining oil mist and particulate matters.



▲ 300mm FILTER DRUM



▲ 600mm FILTER DRUM

### Selection guide for oil mist collector according to machine volume

$$L \times W \times H = M^3$$

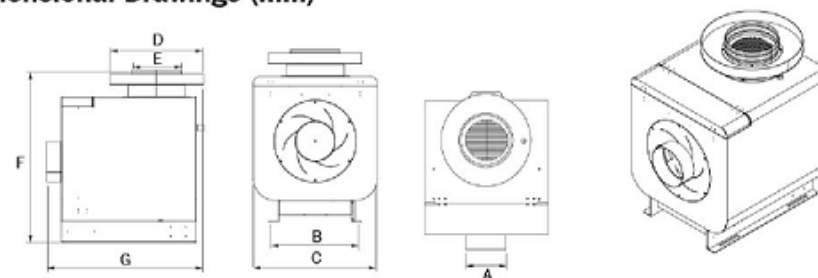
MODEL SELECTION  
REFERENCE



### SPECIFICATIONS

Model	Voltage	HP	Air Flow (50Hz / 60Hz)	Noise	Weight	Intake	Effect space
JW-001-R	3 Phase 220/380V	0.5hp (0.37kw)	11 / 16 (m³ / min)	≤ 62dB	38kg	Ø125mm	≥ 4 m³
JW-002-R	3 Phase 220/380V	1.0hp (0.75kw)	16 / 20 (m³ / min)	≤ 68dB	48kg	Ø150mm	≥ 6 m³
JW-003-R	3 Phase 220/380V	1.5hp (1.2kw)	21 / 26 (m³ / min)	≤ 70dB	55kg	Ø150mm	≥ 8m³

### Dimensional Drawings (mm)



Model	A	B	C	D	E	F	G
JW-001R	122	183	325	340	178	505	541
JW-002R	146	238	380	340	178	566.2	563.4
JW-003R	146	308	450	340	178	626.2	568.4

## Management Philosophy

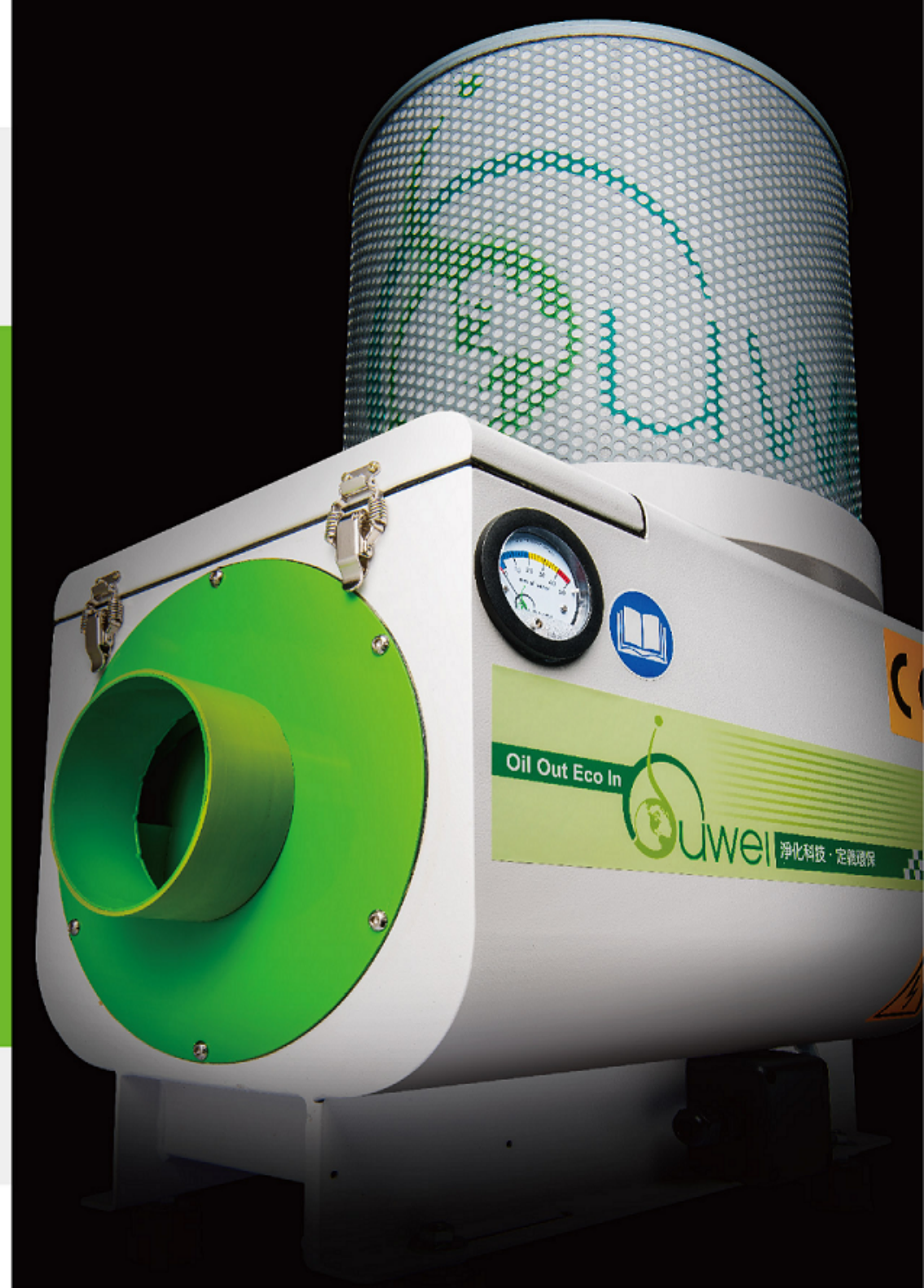
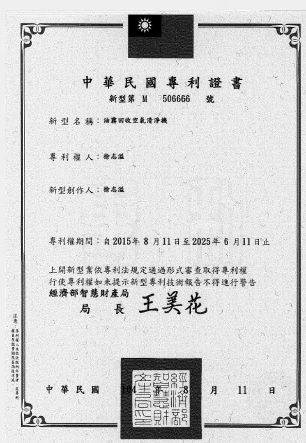
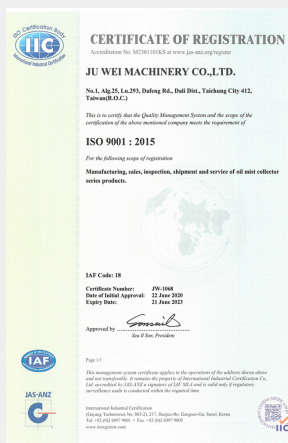
Ju Wei Machinery CO., LTD. focus on designing and producing oil mist air cleaner which is capable of thoroughly reducing oil mist, also offers a unique purification function and consumes less electricity while providing maximum oil mist suction performance. With the rise of environmental awareness and importance of employment diseases, the air cleaner technology in the past cannot solve issues today, so Ju Wei is absorbed in developing oil mist air cleaner to provide a better environment for not only employees but the whole world.

As the growing of the machining, many hazardous substances are released such as exhaust, dust and noise. Now, many machining enterprises are trying to achieve "cleaner production". To fulfill this goal, Ju Wei invites many experts to join our plan to improve the producing technique so that we can provide a higher quality oil mist cleaner to clients. Ju Wei will always concentrate on developing environmental devices and responsible for environmental issues.

## Quality Control

Ju Wei has been SGS, ISO9001 and CEPROM certified since 2012. Our quality system can support our oil mist air cleaner to meet customers' requirement and provide optimum value. The oil mist air cleaner which produced by Ju Wei has some unique advantages, making it becomes the only choice in the machining industry.

- First, it's easy to install, maintain and using.
  - Second, it can clean up much exhaust and mist in the air efficiently.
  - Third, the life time of it is very long and it cost low electricity.
  - Forth, it can install on all kinds of machining machine which will produce oil mist.
- Ju Wei focuses on checking the quality by testing over hundred times before it is delivered to our clients because Ju Wei always wants to provide the best quality to our clients.





## Application Examples

### Milling Machine



### CNC Lathe



### Grinding Machine



## Special Example

