

FUNCTIONAL DESCRIPTION

Mechanical equipment in the processing, generally produces oil mist, water mist, pollution of the environment, jeopardizing the health of workers, reduce productivity, shorten the service life of the equipment. Installation of oil mist separator can eliminate oil mist, create a comfortable working environment and protect the health of workers.

USE

The oil mist collector is used to purify and recycle the oil mist generated by various processing equipment. It has a wide range of applications and is suitable for fully enclosed and semi-enclosed processing equipment, such as CNC numerical control equipment, gear processing equipment, and is especially suitable for metal processing, sheet metal processing and welding, mold manufacturing, automotive parts manufacturing, fasteners production, and other manufacturing industry equipment.

STRUCTURAL FEATURES

1. The oil mist collector adopts mechanical structure, adopts the principle of three-stage filtration and multi-stage precision to effectively collect and recover the oil mist, the collection rate is above 99%, and has excellent recovery efficiency for different concentrations of oil mist.
2. Multi-stage filtration method, filtration accuracy is constantly improving, effective collection and recovery equipment is stable and reliable, in line with industry standards JB/T12907-2016.
3. Low initial investment and later maintenance costs.
4. Low noise design <75dB(A), improve the quality of the workshop working environment.
5. Scientific design, simple structure, easy to install and maintain.
6. Further reduce the space occupation rate and improve the applicability of installation scenarios.
7. Flexible cartridge selection and matching mode, suitable for different applications.

ADVANTAGES OF USE

1. Reduced impact on employees: Oil mist particles of 0.3 to 3.5 um can remain in the body, posing a health hazard.
2. Reduce workplace accidents: Oil mist deposition makes the work area, floor, and walkways slippery and prone to fall accidents.
3. Reduce the damage to mechanical equipment: a large amount of oil mist generated by high-speed cutting for a long time adsorbed on the equipment and workpiece, may become the cause of mechanical equipment and electrical system failure. To the maintenance of machinery and equipment work to bring a lot of trouble, but also make the processing accuracy of machinery and equipment is greatly reduced.
4. Reduce the consumption of coolant: the recovered oil mist can be reused, reducing the expenditure of coolant for the factory.
5. Reduce damage to the environment and waste of resources: If the oil mist gas is discharged to the outdoor, it will damage the environment and cause waste of resources.



YWS2 SERIES



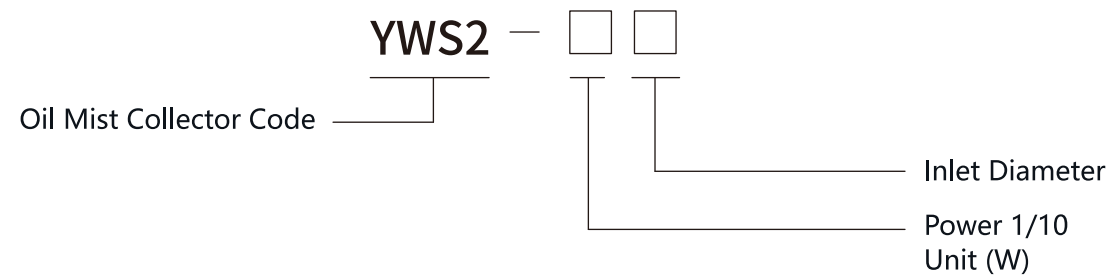
MODEL SELECTION METHOD

According to the general use of the situation and the relevant standards of the machinery industry, you can refer to the following recommended values, the specific selection can be based on the actual use of the customer to choose the most appropriate model.

Closed Type	Oil Mist Models	Inlet Diameter(mm)	Air Volume	Door openings and closings per minute, general value (times/minute)	Suitable for processing room volume(m³)
	YWS2-55	Φ148	600	4~10	1~2.5
	YWS2-75	Φ148	800	4~10	1.5~3.5
	YWS2-150	Φ148	1000-1300	4~10	3~5
	YWS2-150A	Φ198	1300-1500	4~10	4~6
	YWS2-220	Φ148	1500-1800	4~10	5~7
	YWS2-220A	Φ198	1800-2100	4~10	7~10
	General Formula		Airflow = Volume*Opening Frequency*60		

Open-mouthed Type	Oil Mist Models	Inlet Diameter(mm)	Air Volume	Estimated air speed required to absorb oil mist, general value(m/s)	Suitable for the opening area of the processing room(m²)
	YWS2-55	Φ148	600	0.5<V<1	0.3~0.6
	YWS2-75	Φ148	800	0.5<V<1	0.4~0.8
	YWS2-150	Φ148	1000-1300	0.5<V<1	0.5~1.0
	YWS2-150A	Φ198	1300-1500	0.5<V<1	0.6~1.2
	YWS2-220	Φ148	1500-1800	0.5<V<1	0.9~1.8
	YWS2-220A	Φ198	1800-2100	0.5<V<1	1.1~2.2
	General Formula		Air volume = open area * estimated wind speed * 3600		

MODEL DESCRIPTION

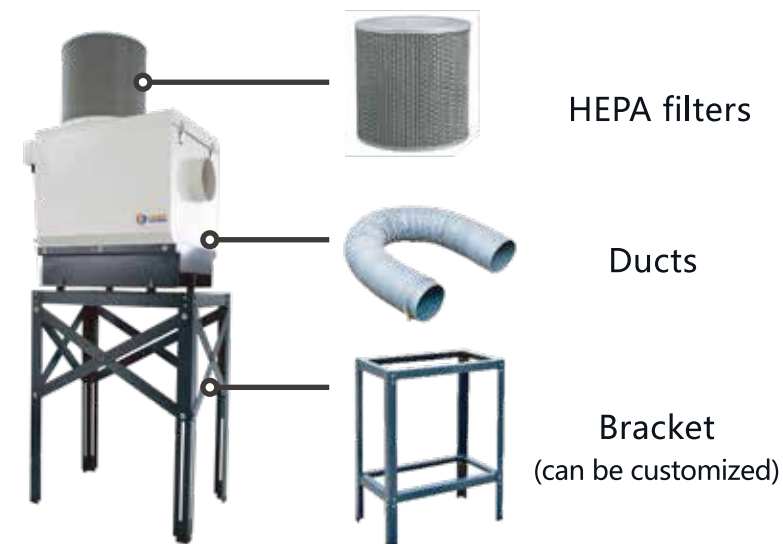


PRODUCT PARAMETERS

Model No.	YWS2-55	YWS2-75	YWS2-150	YWS2-150A	YWS2-220	YWS2-220A
Power supply	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V	3-phase, 220V/380V
Power (kW)	0.55	0.75	1.5	1.5	2.2	2.2
Rotating speed (R.P.M)	2740	2840	2840	2840	2840	2840
Current (A)	2.33/1.35	3.06/1.77	5.77/3.33	5.77/3.33	8.15/4.72	8.15/4.72
Air Volume (m ³ /h)	600	800	1000-1300	1300-1500	1500-1800	1800-2100
Noise dB (A)	66 ± 2	66 ± 2	68 ± 2	68 ± 2	68 ± 2	68 ± 2
Efficiency (%)	99	99	99	99	99	99
Inlet Diameter (mm)	Φ 148	Φ 148	Φ 148	Φ 198	Φ 148	Φ 198
Diameter of Oil Return Port (mm)	16	16	16	16	16	16
Element Material	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber	Synthetic Fiber
Dimensions (L × W × H) (mm, without three-stage cartridge and holder)	610 × 400 × 530	630 × 410 × 550	640 × 450 × 586	640 × 450 × 586	640 × 450 × 586	655 × 450 × 586
Power Cord	4芯	4芯	4芯	4芯	4芯	4芯
Color	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable	RAL9010 Customizable

Note: Customers with special requirements for products support customization

OPTIONAL ACCESSORIES



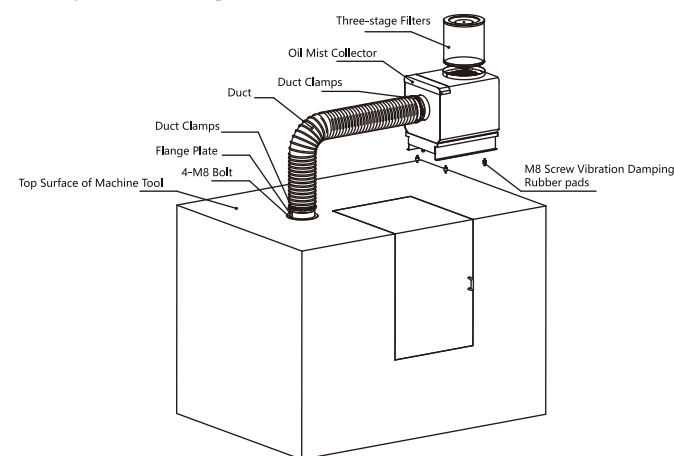
For different applications, three-stage HEPA filters can be selectively configured according to the needs and environmental requirements.

air inlet and oil return ducts (with appropriate size clamps), choose the appropriate length according to the installation location. Recommended to be purchased together with the oil mist collector.

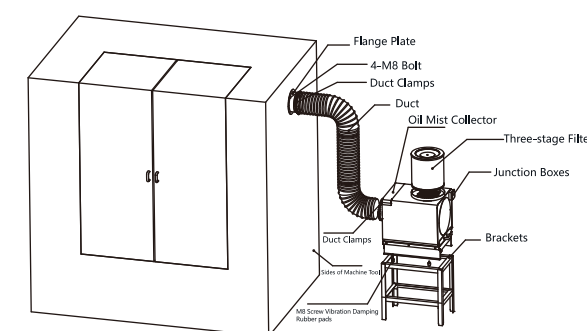
Bracket (can be customized): Depending on the installation location, it is reasonable to decide whether or not the bracket needs to be installed. The oil mist collector is shipped with the oil mist collector by default.

INSTALLATION METHOD

Top Mounting as Shown



Side Mounting as Shown



COLLECTION METHOD

Centrifugal aggregation, return pipe return

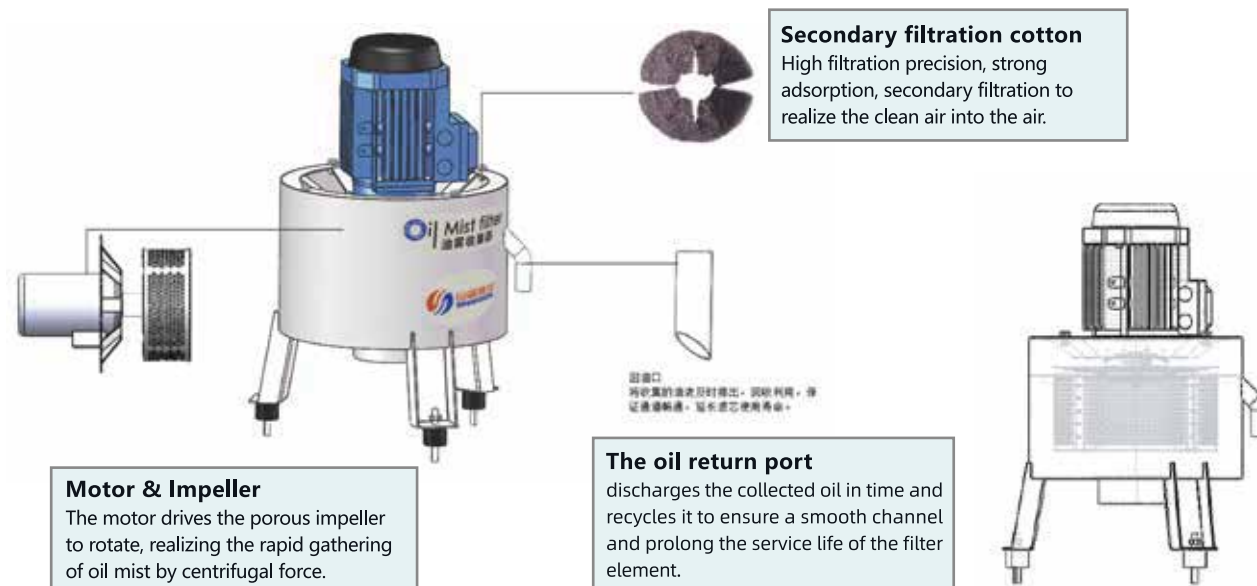
STRUCTURAL FEATURES

- Oil mist collector adopts mechanical centrifugal structure, using porous centrifugal impeller collision, fine filter cotton cohesion on the effective collection and recovery of oil mist, the collection rate of more than 99%, and for different concentrations of oil mist All have excellent recycling efficiency.
- High working efficiency, high filtration precision, effective collection and recycling.
- The equipment is stable and reliable, and complies with the industry standard JB/T12907-2016.
- Low upfront investment and post maintenance costs.
- Low noise design to improve the quality of workshop working environment.
- Scientific design, simple structure, easy to install and maintain.



ADVANTAGES

- Reduce the impact on employees: 0.3-3.5um oil mist particles are inhaled and difficult to expel, jeopardizing health.
- Reduces workplace accidents: Oil mist deposits make work areas and floors slippery and prone to fall accidents.
- Reduced damage to machinery and equipment: oil mist adsorbed on equipment and workpieces for long periods of time can lead to mechanical and electrical system failures. Obstacles. Affects the work of mechanical equipment and reduces the machining accuracy of mechanical equipment.
- Reduce the consumption of coolant: the recovered oil can be reused, reducing the cost of the enterprise.
- Reduces environmental damage and resource waste: Oil mist discharged into the air damages the environment and also causes resource waste.
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CONSUMABLES REPLACEMENT



Unscrew the Allen screws and remove the secondary filter wool for replacement.



Remove the fine filter wool directly for replacement.

MODEL SELECTION METHOD

According to the general use of the situation and the relevant standards of the machinery industry, you can refer to the following recommended values, the specific selection can be based on the actual use of the customer to choose the most suitable model.



Closed Type

Oil Mist Models	Air Volume	Door openings and closings per minute, general value (times/minute)	Suitable for processing room volume(m³)
YWV1-12	400	4~10	0.5~1
YWV1-37	600	4~10	1~2
General Formula	Airflow = Volume*Opening Frequency*60		

Open-mouthed

Oil Mist Models	Air Volume	Estimated air speed required to absorb oil mist, general value(m/s)	Suitable for the opening area of the processing room(m²)
YWV1-12	400	0.5<V<1	0.05~0.1
YWV1-37	600	0.5<V<1	0.1~0.15
General Formula	Open Area * Estimated Wind Speed * 3600		

CLOSED-ENDED TYPE CALCULATION METHOD

Q—Oil mist collector air volume, in cubic meters per hour (m³ / h);

W×D×H—The volume of the processing chamber cavity (length×width×height), unit is meter (m)

a—The number of air changes per minute in the processing room, in units of times per minute (times/min).

OPEN-ENDED TYPE CALCULATION METHOD

Q—Oil mist collector air volume, in cubic meters per hour (m³ / h);

A x B—Opening size of the processing chamber (length x width), in meters (m)

V—Oil mist suction is expected to require wind speed, the unit is meters per second (m/s), generally more than 0.5m/s

COLLECTION METHODS

ELECTROSTATIC ADHERENCE, RETURN OIL PIPE RETURN FLOW

FUNCTIONAL SPECIFICATION

When mechanical equipment is processed, oil mist and water mist will be produced. Pollute the environment, harm the body of workers, reduce production efficiency, shorten the service life of equipment. The installation of oil mist collector can eliminate oil mist and oil smoke, create a comfortable working environment, and protect the health of workers. This product has high integration, energy saving, easy installation, easy to clean; Purify indoor air and maintain a clean environment in the workshop; No need to change the filter material, low cost.



RESULT CHARACTERISTICS

- ◆ Mainly for the collection and recovery of oil-based atomized particles in the machining industry.
- ◆ The electrostatic oil mist collector adheres the oil smoke to the collector by means of electrostatic collection to achieve the purpose of purifying the oil.
- ◆ All basic components and electrostatic modules can be used again after cleaning, no disposable solid waste, low maintenance costs.
- ◆ Oil mist and oil smoke particles are mechanically separated through the honeycomb metal mesh, and smaller oil mist and particles are purified by the electrostatic module.
- ◆ The equipment is stable and accessible, in line with industry standard JB/T 12907-2016.
- ◆ Compact structure, easy to install, clean and maintain, improve the flexibility of the equipment.
- ◆ Low nest sound design $\leq 72\text{db(a)}$, improve the quality of the workshop working environment.

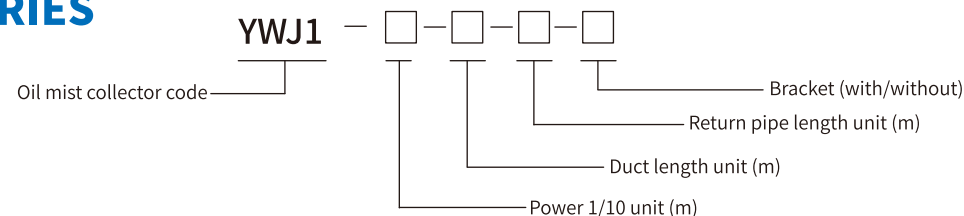
USE ADVANTAGE

- ◆ Efficient purification: The electrostatic oil mist collector can efficiently remove oil mist particles with a size of 0.1-0.01 microns, with a purification efficiency of over 98%.
- ◆ Reduce industrial accidents: oil mist deposition makes the working area, floor, walkway slippery, easy to cause fall accidents.
- ◆ Low operating cost: the equipment does not need to replace the filter material, low operating cost, simple maintenance.
- ◆ Reduce damage to mechanical equipment: a large amount of oil mist generated by high-speed cutting is adsorb on equipment and workpieces for a long time, can be the cause of mechanical equipment and electrical system failure. It brings no small trouble to the maintenance of machinery and equipment, it also greatly reduces the processing accuracy of mechanical equipment.
- ◆ Reduce damage to the environment and waste of resources: if the oil mist gas is discharged to the outside, it will damage the environment and cause capital waste on the source.

PRODUCT PARAMETERS

Model number	Adaptive power supply	Fan Power (kW)	Handling air volume (m ³ /h)	Electrode form	Output voltage HV (kV)	Output voltage LY (kV)	Output current (mA)	Electrostatic power (W)	Processing efficiency	Suction air temperature	Suction diameter (mm)	Size/quantity of electric field	Dimensions L×W×H (mm)	Mounting Dimension L×W (mm)	Weight (kg)
YWJ1-15	220V 50HZ	0.15	600-800	Double high voltage wire board	12	6	20	300	98%以上	<80℃	160	340×361×360/1	664×488×480	535×285	45

YWJ1-15 SERIES

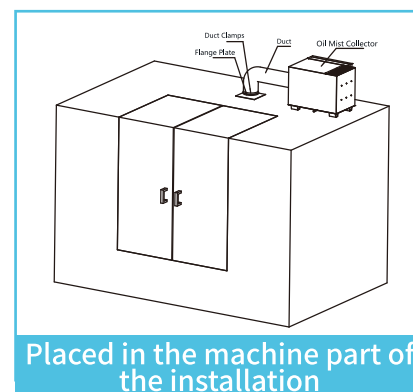


INTERPRETATION OF RESULTS

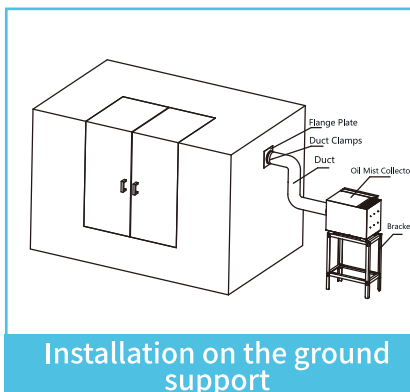
- ◆ The oil mist collector is mainly divided into three parts: oil mist main body, distribution box, pre-filter, high voltage ionization, low voltage adsorption integrated electric field, three parts.
- ◆ The oil mist body includes an integrated motor impeller and an oil collecting valve.
- ◆ The overall mechanism adopts modular design scheme, reflecting the design concept of efficient maintenance.



INSTALLATION MODE



- ◆ According to the oil mist collector type, open the fog suction hole on the top of the machine tool (if there is a reserved hole, go directly to step 2).
- ◆ Place the oil mist collector on the item of the machine tool, align it with the erection part, tighten the screws. Install the flange in the suction hole of the machine tool and tighten the screws.
- ◆ Connect the body to the pipe hose (Use a throat clamp to lock, the air duct cannot go in a U-shape).



- ◆ According to the installation size of the installed model, make the brackets and open the installation screw holes.
- ◆ Set up the oil mist collector on the ground support and tighten the screw cap. install the flange on the mist suction hole opened on the machine tool.
- ◆ Finally connect the body to the pipe hose (Use a throat clamp to lock, the air duct cannot go in a U-shape).

OPTIONAL ACCESSORIES



HIGH PRESSURE IONIZATION AND LOW PRESSURE ADSORPTION INTEGRATED ELECTRIC FIELD CLEANING PROCEDURE

1. Turn off the main control power switch;
2. Put the screwdriver on the poles of the electric field (+) to release or retain the charge (i.e., discharge);
3. Extract the electric field of the purification unit;
4. 60 degrees Celsius warm water and industrial tablet caustic soda 50:1 mixing (or special cleaning agent);
5. Completely soak the stain electric field in the colloidal solution for 20 minutes, and the water level is better than the purification unit;
6. After soaking, take out the electric field, rinse the large particles of oil with a water gun, put it back into the body after the electric field dries, and close the power distribution door;

precautions:

- ◆ After cleaning can not change the electric field plate ask the gap distance.
- ◆ The internal affairs of the electric field must be cleaned thoroughly, after drying or in a cool place for more than 20 hours, and put back to the body after no water stains.