

FUME/ DUST PURIFIER

Operation and Maintenance Manual



Pictures are for reference only. Please see the real product for detailed information

Please read the manual carefully before use, and keep it for future reference.

FUME/ DUST PURIFIER MACHINE

Operation and maintenance manual

Pictures are for reference only. Please see the real product for detailed information

Please read this manual carefully before use, and keep it in a safe place for future reference.

Operating Instructions

Thank you for purchasing the fume purification equipment, which means that your knowledge and contribution to environmental protection cause has been promoted to a higher level. Please note the following when using the equipment:

Safety regulations

- ✓ It is strictly prohibited to store or use this product in high temperature, high humidity, flammable, explosive and strong electromagnetic environment.
- ✓ When it is not in use for a long period of time, the power supply should be disconnected and the machine switch should be turned off.
- ✓ There is high pressure inside the product, so non-specialists are prohibited to disassemble and repair it.
- ✓ It is forbidden to touch the high-speed rotating impeller with hands or objects to avoid mechanical damage.

Precautions for use

1. The proximity of the fume extraction hood to the point of fume production directly affects the effectiveness of fume extraction. Several experiments have proven that a distance of 10-15cm is

appropriate.

2. A faster flow of air around the fume extraction hood results in less effective fume extraction. The fan gear needs to be lowered or turned off.
3. The longer the length of the fume extraction pipe, the weaker the fume extraction effect.

The more bends in the fume extraction pipe, the weaker the fume extraction effect.

Suggestion: minimize pipe bends as far as possible, and if bends are unavoidable, make the bends as large as possible.

4. Air flow adjustment

Depending on the size of the fume, adjust the knob to ensure that all fume can be inhaled, rather than necessarily setting the airflow to the maximum. Otherwise it not only increases the noise, but also reduces the effectiveness of the filter!

Replacement of filter element

The product relies on a variety of filter elements to filter out fume, dust, odor and toxic substances. Therefore, filter elements are consumable materials with rated saturation and should be replaced on a regular basis.

Replacement cycle recommendation:

- Pre-filter cotton → 10-15 days.
 - Medium-efficiency filter element → 2-3 months
High-efficiency filter element → 4-6 months.
- ✓ Since the amount of pollution produced varies from place to place, the specific replacement cycle is subject to actual conditions! Please use the manufacturer's original filter element!

Please pay special attention to the use and maintenance of the equipment according to the above rules. - regularly replace the filter element. If the above instructions are not followed, the manufacturer is not responsible for any reduced suction force, equipment damage, early scrapping of the filter element, as well as physical damage, environmental pollution and safety issues.

Packing list

After opening the box and taking out the machine, carefully check whether the following accessories are missing or damaged. If any of these items are found to be missing or damaged, please contact our customer service center or distributor.

Component	Qty	Specification	Note
Main equipment of the purifier	1 set	W16.53×9.64T×H17.71inch	
External power cord	1 pcs	L1.8m, 5A/110V	
Bamboo-joint type fume extraction pipe	1 pcs	Calibre: ∅ 1.96inch×L1.3m	Two pipes for double-port machines
Bamboo-joint connectors	1 pcs	∅ 2.95inch or ∅ 1.96inch	Two connectors for double-port machines`
Fume-collecting hood	1 pcs	∅ 50mm port	Two connectors for double-port machines
Instruction manual, warranty card	1 pcs		
Pre-filter cotton	5 pcs		1 piece in the machine, the other 4 pieces in a PE bag.
Oil-absorbing cotton	5 pcs		Only for specific moxibustion models
Medium- efficiency filter	1 pcs		Installed in a high-efficiency filter element
High-efficiency filter element	1 pcs		

Note:

1. **The fume extraction pipe** Normally equipped with $\Phi 50\text{mm} \times \text{L}1.3\text{m}$ bamboo-joint type fume extraction pipe, which can be configured according to customer's requirements. $\Phi 75\text{mm} \times \text{L}1.4\text{m}$ bamboo-joint type pipe or other types of fume extraction pipe; the length can also be changed at will.
2. **Fume-collecting hood** is a silicone horn-shape hood. Other types of fume-collecting hoods can be equipped according to customer's requirements.
3. **Mobile casters:** optional accessories.
4. **Air flow control valve:** optional accessories.

This product is available in several colors. This instruction is applicable to all color modifications.

Contents

I. Product overview	1
II. Product features	3
III. Specifications & parameters	5
IV. Appearance, structure and working principle	6
4.1 Single workstation	6
4.2 Double workstation	7
4.3 Moxibustion and cosmetology	8
4.4 Introduction to working principle	9
V. Operating Instructions	10
5.1 Assembly of fume extraction pipe	10
5.2 Power-on	11
VI. Replacement and maintenance of filter device	13
6.1 Determination of replacement of Filter element	13
6.2 Procedure for replacement of filter element	14
VII. Failures and maintenance	17
VIII. Optional accessories and consumables	19

I. Product overview

Moxibustion Fume Extractor with Single or Double Workstation represents the cutting-edge technology of the industry and takes a leading position in the benchmark products.

It has An excellent purification and filtration effect on smoke, small dust particles, odor, toxic and harmful gases produced in soldering iron, tin dipping in tin furnace, laser marking, laser medical treatment, moxibustion and cosmetology, chemical experiments. The product is suitable for point-to-point absorption of contaminants.

While working in such environment, there is a large amount of fumes, gases and particles that are harmful to humans. For example, different materials, additives and welding temperatures used in soldering work will produce different levels of poisons and carcinogens. This purification equipment is the first choice to protect the health of the operator.

The product adopts multi-layer filtration unit, including pre-filter cotton, medium-efficiency filter element and high-efficiency filter element (composed of HEPA high-efficiency filter and gas filter), which can make stepless and precise adjustment to the air flow according to the pollutants produced. It can effectively filter and intercept pollution particles above $0.5\mu\text{m}$, absorb toxic gases, and the filtration and purification rate can reach 99.99%. The resulted purified air is clean and safe to inhale.



Single workstation	Double workstation	Moxibustion and cosmetology
<p>Suitable for single station, filtering and tin soldering and laser marking.</p> <p>Lightweight and mobile, it can be used without installation and occupies less space.</p>	<p>It can be used in two workstations concurrently to achieve filtering, tin soldering and laser marking. It is lightweight, requires no installation and occupies less space.</p>	<p>It is suitable for moxibustion, medical treatment, cosmetology and other places. Easy mobility with casters. Features two air inlets that can be replaced with a single inlet.</p>

Pictures are for reference only. Please see the real product for detailed information

II. Product features

1. Appearance and structure

- ✓ The shape is simple stable and elegant. Integrated body design, metal frame structure, high-quality cold-rolled steel sheets with electrostatic spraying process, durable in use. With a brushed stainless steel panel, the product has delicate classic look.
- ✓ The two sides come with concave high-quality plastic handles, which are reliable and easy to carry.
- ✓ With a unique curve design, the air inlet flange is in line with the principle of fluid dynamics.
- ✓ Thanks to the user-friendly stepless speed regulator, the air flow and suction can be adjusted as desired.
- ✓ The size is compact, its easy mobility eliminates the need of installation and makes workspace friendly and neat.

2. Draught fan

- ✓ It adopts DC brushless motor with built-in controller, which ensures better performance and quality.
- ✓ Stable operation, low noise, high efficiency, low energy consumption and long working hours. No need for regular maintenance and lower costs.
- ✓ The wind rotor adopts vortex type backward design and special alloy material, which effectively prevents the wind rotor from corrosion. The unique dynamic balance correction technology makes the wind rotor run more smoothly and reliably. Large air flow, big suction power, higher filtration rate.

3. Filtration system

- ✓ Adopt quadruple filter design. Layer-by-layer filtration ensures that harmful fumes and dusts are filtered out more thoroughly. The purification rate is up to 99.99%.
- ✓ Modular design with layers of protection. The pre-filter element, medium-efficiency filter element and high-efficiency filter element can be replaced separately, resulting in a longer service life and lower replacement cost.

- ✓ The unique internal sealing structure, together with special sealing materials, allows all harmful substances to pass through the filtration system, thus resulting in higher filtration efficiency.
- ✓ The built-in circulating active filtration system avoids discharging cold/heating air from the room to the outside without disturbing the temperature and humidity environment of the operating area.

4. Fume-collecting unit

- ✓ The machine is equipped with a universal fume extraction arm, which can be freely redirected and positioned (length can be customized). The ends are fitted with new fume-collecting hoods that are uniquely shaped for greater smoking efficiency.
- ✓ Simple installation, easy operation, no additional piping requirement.

5. Safety certifications, design standards, patents

- ✓ With CE, UL, WHO certification, safe and reliable.
- ✓ Design standards: *Indoor Air Quality Standard*, China Standards: GB21551.1-2008, GB/T 18801.
- ✓ National design patents and utility model patents for the machine structure.

III. Specifications & parameters

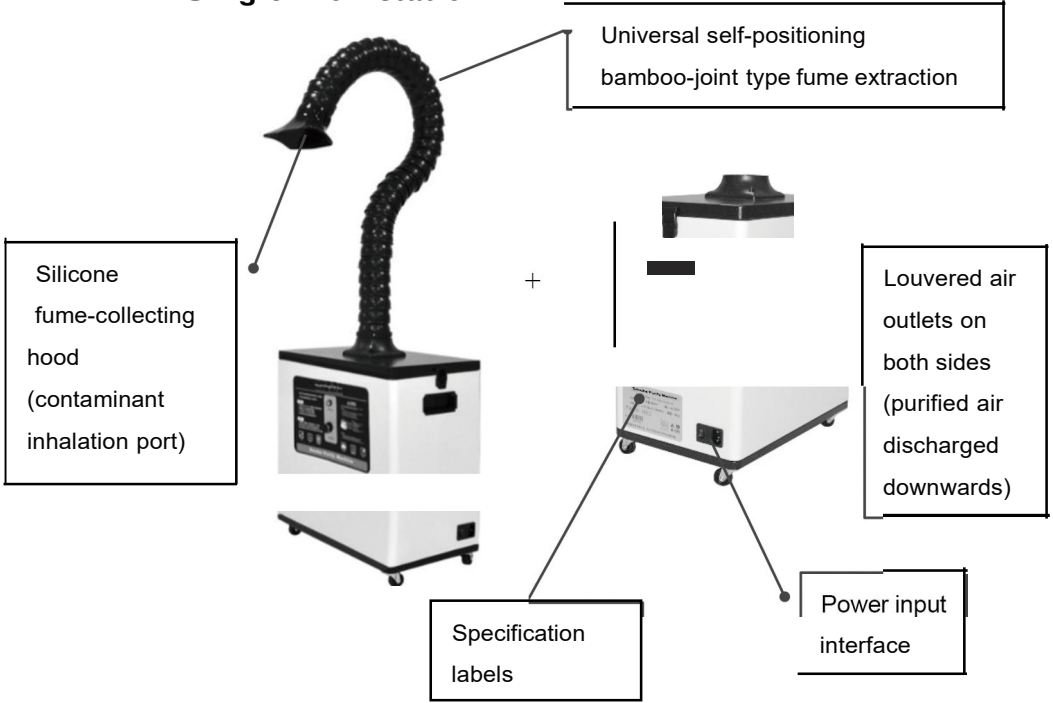
Model Parameter	Single workstation	Double workstation	Exclusively provided for moxibustion and cosmetology
Air inlet port	φ2.95inch	φ2.95inch*2	φ*2.95inch/*2
Input voltage	AC110V 50Hz	A110V 50Hz	AC110V 50Hz
Rated power	80W	200W	200W
Wind speed	17m/s	2×12 m/s	2×12 m/s
Filtration effect	0.5μm 99.99%	0.5μm 99.99%	0.5μm 99.99%
Noise	<55dB	<60dB	<60dB
Fume extraction pipe (standard)	Bamboo-joint pipe φ 1.96inch*L1.3M	Bamboo-joint pipe φ 1.96inch*L1.3M	Bamboo-joint pipe φ 1.96inch*L1.3M
Air flow	250m ³ /h	380m ³ /h	380m ³ /h
Body size (mm)	W16.53×9.64T×H17.71 inch	W16.53×9.64T×H17.71 inch	W16.53×9.64T× H17.71 inch
Body weight (excluding fume extraction arm)	13kg	15.5kg	15.5kg

Note:

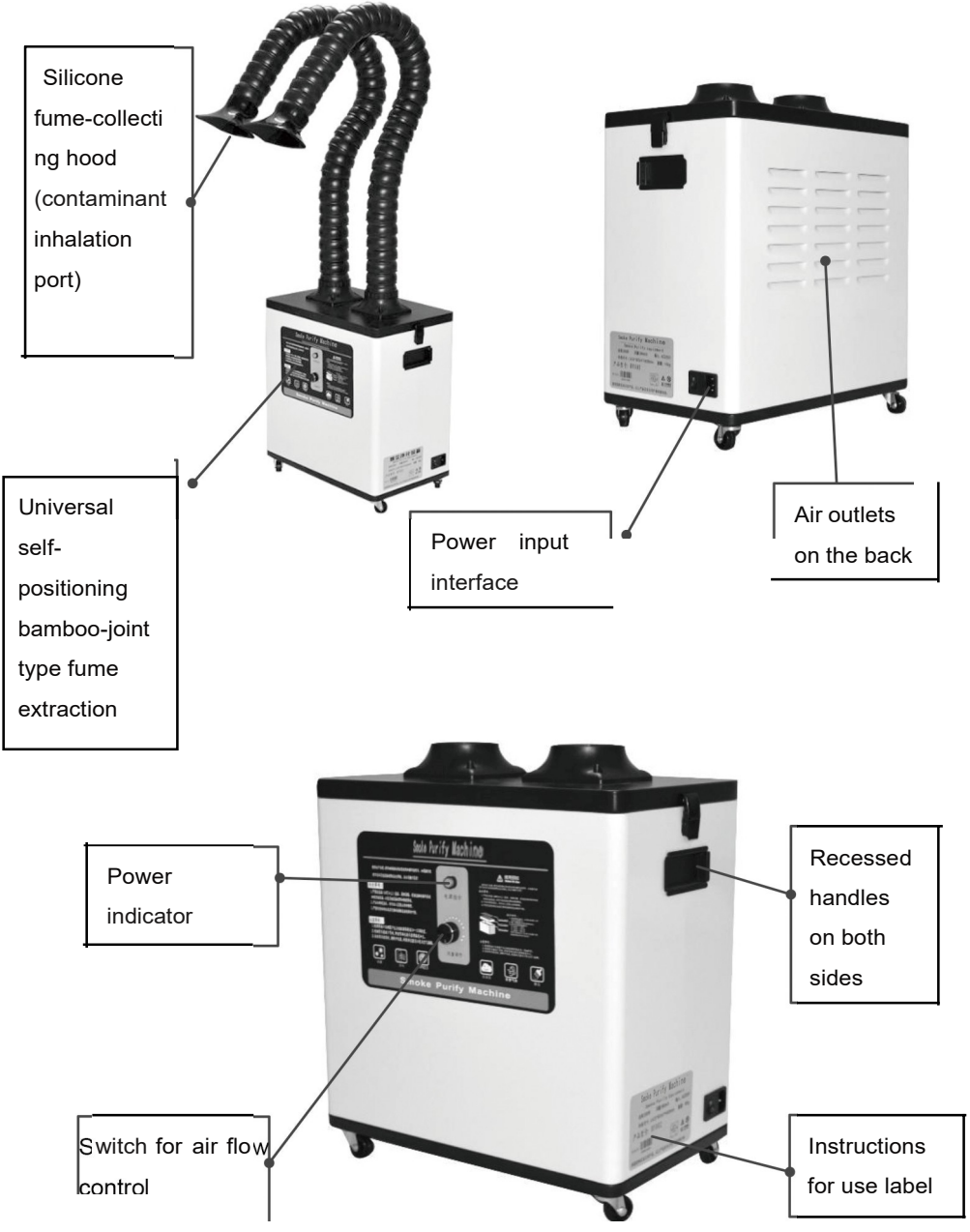
1. The type, length and size of the fume extraction pipe can be equipped according to the customer's requirements.

IV. Appearance, structure and working principle

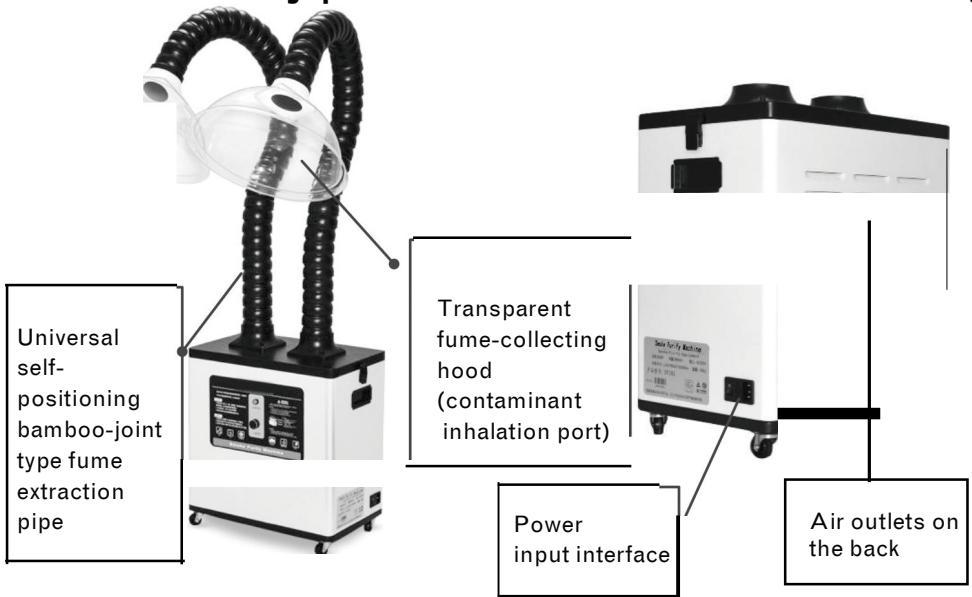
A. Single workstation



B. Double workstation

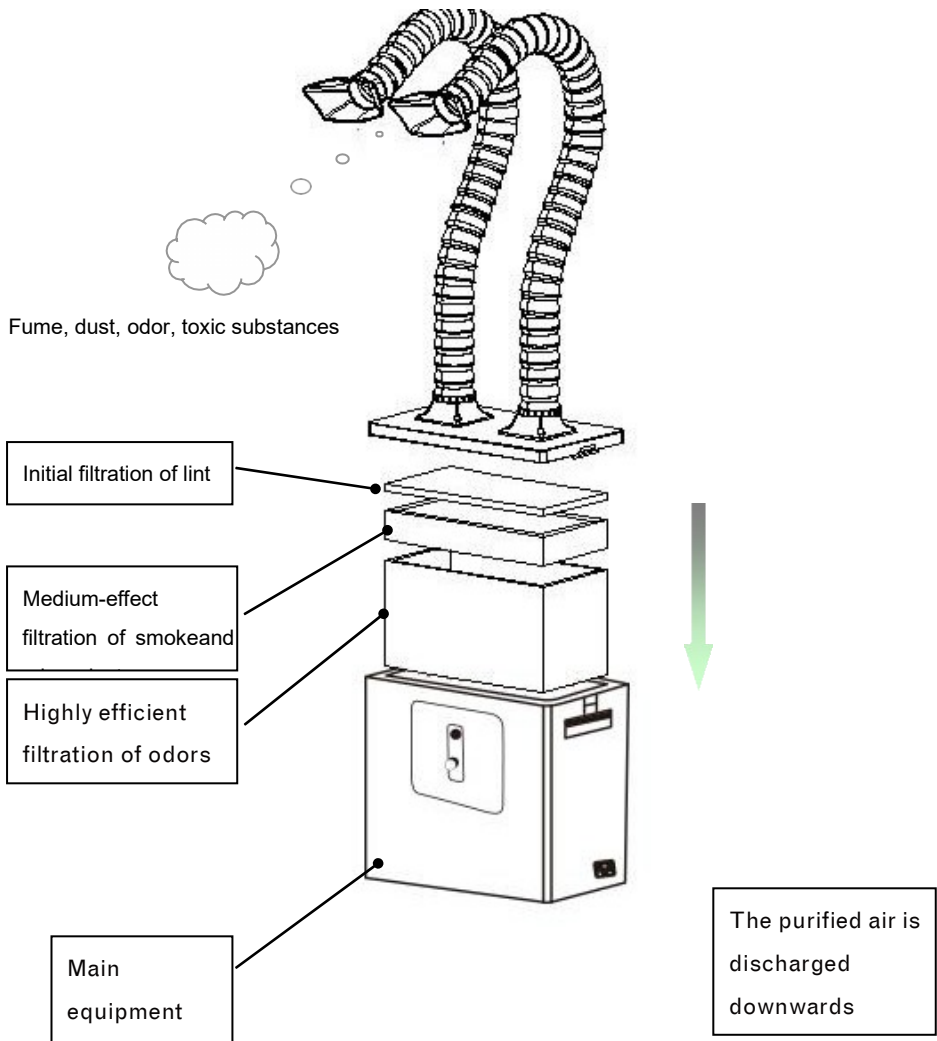


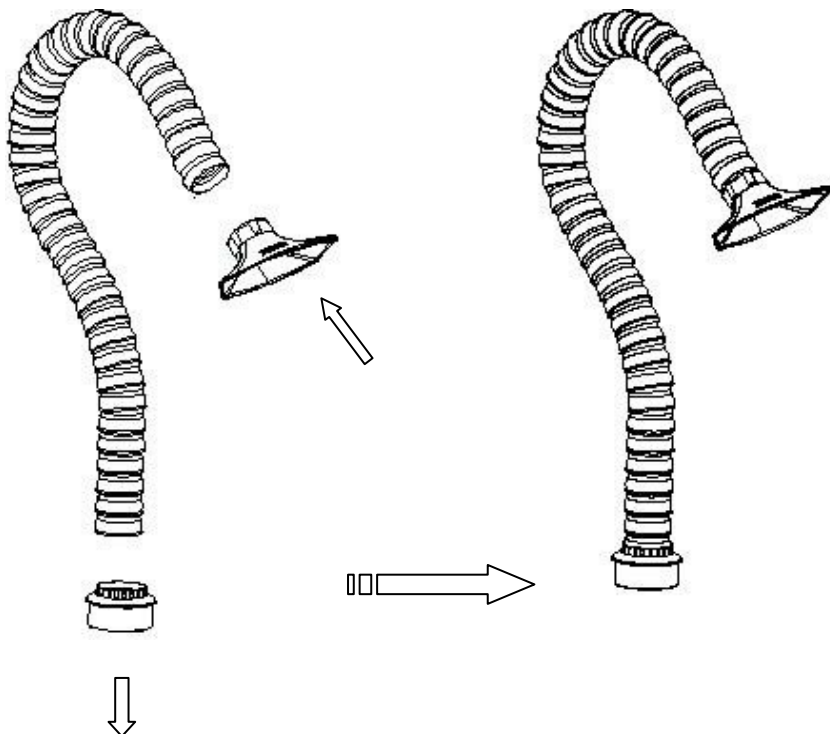
a. Exclusively provided for moxibustion and cosmetology



b. Introduction to working principle

The purification equipment adopts physical active purification and filtration technology, the pollutants are sucked by vortex centrifugal fan, and the clean air is directly discharged indoors after being purified by multi-layer filtration device.





V. Operating Instructions

Open the box, first take out the packaging bag of the fume extraction pipe on both sides (Φ 50mm bamboo-joint pipe), then take out the pre-filter cotton packaging bag on the front side

(special model for moxibustion and cosmetology also contains a packet of oil-absorbing cotton), and finally take out the body of the purifier.

Assembly of fume extraction pipe

The packaging bag of the fume extraction pipe contains the following components: bamboo-joint pipe, bamboo-joint connector, horn-shaped hood.

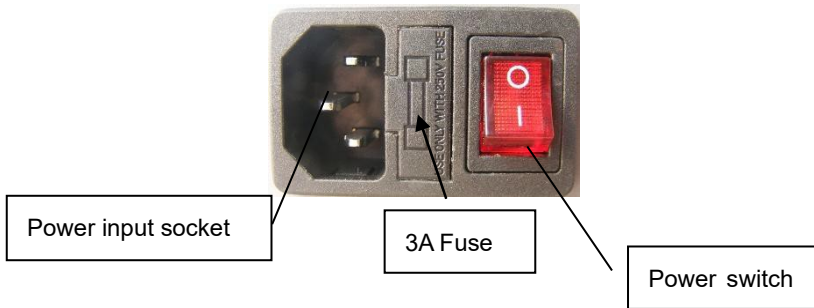
Connect the above components as shown in the following figure.

The bamboo-joint pipe should be forced into the groove of the bamboo-joint connector. When you hear a "click", the connection is secure. Except for the \varnothing 50mm bamboo-joint pipe which is connected as above, other types of fume extraction pipes are already installed as finished products at the factory, so there is no need to reconnect them.

- ✓ Remove the purifier and place it on a flat floor or countertop (lock the caster brake for machines with casters) to avoid vibration.
- ✓ Insert the bamboo-joint pipe into the flange hole in the top cover of the machine; rotate the pipe and align the horn-shaped hood with the fume production point.
- ✓ Note: When adjusting the direction of the pipe, try to keep the pipe body bent gently as much as possible; the horn mouth should face the fumeproduction point, and the distance should be kept within 20cm as muchas possible.

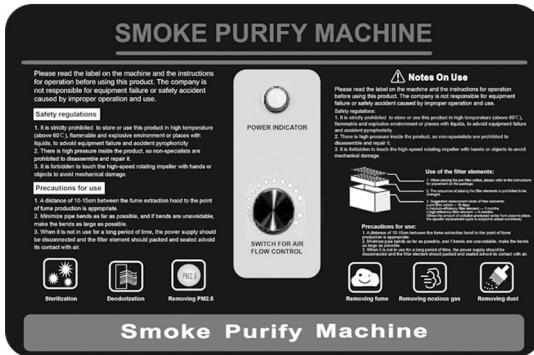
Power-on

Plug the power cord into the 3-in-1 socket on the back of the device and plug the other end into the power socket (AC220V 50Hz). Press the red switch, if the red light is on, the power-on is normal.



- ✓ Twist the knob on the operating panel clockwise, the green indicatorlight is on and the machine starts working.
- ✓ If you continue to rotate right, you gradually increase the air flow.
- ✓ When the equipment is in operation, the suction force is appropriately set to inhale the fume, not necessarily adjusted to the maximum.
- ✓ The greater the suction force, the greater the noise and power

consumption, and the less effective filtration!



It is forbidden to cover the air inlet or outlet with objects while the equipment is in operation. Otherwise, it will cause the machine to

heat up at high speed and burn out the internal motor and circuit control board!

VI. and maintenance of the Replacement filter unit

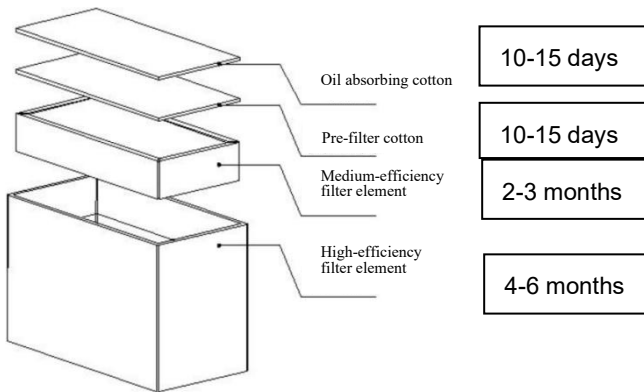
Precautions:



The filter is saturation rated as this purification device primarily adopts a physical filtration method. When the contaminants absorbed by the equipment reach the rated saturation of the filter element, the filter element will be blocked and lose its purification function, so it is necessary to replace the filter element with a new one.

When to replace the filter?

When used in places specified by this equipment, the recommended replacement intervals for various filter elements are as follows based on the results of many tests (for reference only).



- ✓ The top layer of the oil-absorbing cotton is only used for moxibustion.

The order of placing each layer of filter element is subject to the left figure, and exchange is strictly prohibited.

Because the amount of contamination varies from place to place, the specific replacement cycle is subject to actual conditions.

A filter element is essentially considered to be in need of replacement in the following cases:

A. Characteristics of replacement of pre-filter cotton and medium-efficiency filter element

Reduced equipment suction.

The filter cotton is yellow or blackened and many particles accumulate on the surface.

Periodic replacement according to duty cycle.



Before use



After use



Before use



After use

B. Characteristics of replacement of high-efficiency filter element

When the suction force of the equipment is weakened and the odor of the exhaust outlet is serious, check whether the pre-filter element or medium-efficiency filter element needs replacement; if the suction force is still small after such replacement, a new high efficiency filter needs to be provided.

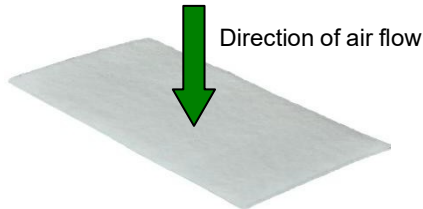
6.2 Procedure for replacement of filter element

A. Turn off the working equipment, disconnect the external power supply, and unplug the fume extraction pipe unit.

Pull up the clasps on both sides of the machine to remove the top cover.

Replacement of pre-filter cotton:

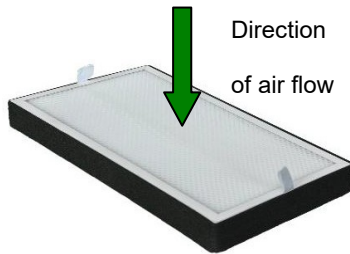
The old cotton is removed and the new cotton is laid flat in the high-efficiency filter element.



Place the white side up

Replacement of medium-efficiency filter element:

Hold the handle on the side of the old medium-efficiency filter element and slowly pull it out of the high-efficiency filter element.

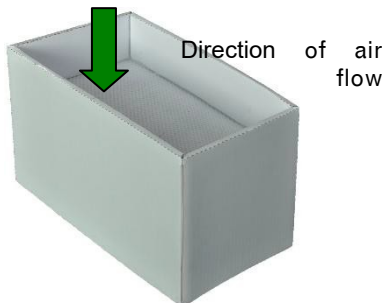


Press the new medium-efficiency filter element smoothly and slowly into the high-efficiency filter element, and press it firmly to the bottom.

Place the face with handle up

Replacement of high-efficiency filter element:

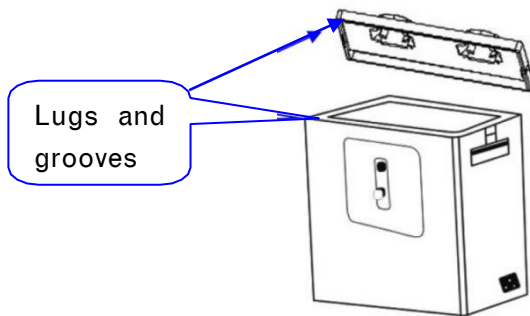
- ✓ According to the above guidance, after taking out the pre-filter cotton and medium-efficiency filter element, replace it with a new high-efficiency one, and then put in the pre-filter cotton and medium-efficiency cotton in order.



Grasp the two short sides of the high-efficiency filter and place it gently as shown on the left figure.

When a new primary filter is replaced, mark the date for future reference.

- ✓ Place the top cover on the fuselage, noting that the lugs on either side of the cover have different length and correspond to the grooves on both sides of the top of the fuselage.



- ✓ Hang the buckles on both sides and press down hard with both hands at the same time to lock the buckles. If you feel that the downward pressure is excessive, please press down on the cover and then pull down the buckle, do not pull down forcibly. Insert the fume extraction pipe, adjust the direction as described above, and then turn on the machine to start work.
- ✓ The original filter element must be used, otherwise we will not be responsible for any failure of the machine caused thereby.
- ✓ The fume extraction arms should be cleaned regularly (usually once every 1-2 months, depending on the specific work environment).
- ✓ When installing and dismantling the filter element, you should hold the surrounding frame with both hands and slowly put in and take out the filter element. During handling, do not push the inside of the filter element with your head or hands, otherwise, the filtration effect will be affected due to deformation or damage of the filter material.

VII. Failures and maintenance



Because of the high voltage and strong current inside the equipment, be sure to turn off the power before checking and maintaining the equipment!

Non-professionals are prohibited to disassemble this equipment! Otherwise, a safety accident may be caused.

1. Failure phenomenon: the system still works and the noise increases, but the airflow is weak and the suction force is greatly reduced.

Possible causes:

- ① Air inlet or outlet blocked.
- ② The failure of the filter element is caused by clogging due to saturation

Troubleshooting:

Turn off the power, open the top cover, and check if there are any foreign objects blocking the air inlet, then check if the air outlet is blocked.

If there is no abnormality after inspection and treatment, reboot the machine. If the airflow is still low, the filter element needs to be replaced.

2. Fault phenomenon: the machine automatically shuts down immediately after start-up. The phenomenon above occurs again after rebooting the machine.

Possible causes:

The internal airflow is blocked, the filter element resistance is too large, resulting in excessive current to start the fan. The system automatically triggers the shutdown to protect the machine.

Troubleshooting:

Turn off the power, open the top cover and check if there is any foreign matter blocking the air inlet; if there is no abnormality after inspection and treatment, adjust the air flow knob to the minimum, then reboot the machine and adjust the knob to the appropriate position of the air flow.

3. Failure phenomenon: equipment does not work.

Possible causes:

1. The power switch on the back of the machine is not turned on.
2. Blown fuse in the 3-in-1 switch.
3. The knob on the operation panel is not opened clockwise.

Troubleshooting:

1. Check whether the power cord is plugged in and the red switch on the back is pressed down.







If the red light on the back is ON, it means the equipment is powered up properly. Turn on the front knob again, and if the green indication light is ON, it means the device circuit control is faulty. In this case, please contact the manufacturer.





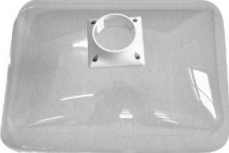
2. If the red light on the back is OFF, remove the fuse in the 3-in-1 switch to see if it is blown.

If a fuse blows, replace it and reboot the equipment again.

***If you still cannot solve the problem after the above inspection and maintenance, please contact the manufacturer or dealer.

VIII. Optional accessories and consumables

Name	Model	Description	Image
Pre-filter cotton		Mainly removes large particles and lint	
Oil-absorbing cotton		Used to absorb the oily substances in combustion fume	
Medium-efficiency filter element		Used to filter out micro-dust and fume	
High-efficiency filter element		Use to filter out odor, toxic substances and secondary particles.	
1.96/2.95 inch bamboo-joint pipe	\varnothing 1.96 \varnothing 2.95 inch	Variable direction, self-positioning Pipe diameter of 2.95 inch, customized length	
Corrugated pipe	\varnothing 1.96 \varnothing 2.95 inch	Up to 4x extendable length, can be elongated and bent as required	

Air flow control valve	\varnothing 1.96 \varnothing 2.95 inch	Mounted in a bamboo-joint pipe for easy adjustment of the air flow	
Horn-shaped fume extraction hood	\varnothing 1.96 \varnothing 2.95 inch	Soft silicone material, high temperature resistant Size of fume extraction mouth: W7.4*H3.54inch Interface size: \varnothing 1.95 and 2.96inch	
Aluminum-made Large fume-collecting hood		Diameter of fume-collecting mouth: \varnothing 11.8inch Interface size: \varnothing 2.95 inch	
PVC Round transparent cover	\varnothing 2.95 inch	Diameter of fume-collecting mouth: \varnothing 13.9inch Interface size: \varnothing 2.95 inch	
PVC Square transparent cover	\varnothing 2.95 inch	Size: 16.9*16.9inch Interface size: 2.95 inch	
PVC			

Square transparent cover	Ø 2.95 inch	Size: 16.5*24.4inch Interface size: Ø 2.95 inch	
--------------------------------	----------------	---	---

