

**Walk-in Fume Hood
FH(W) Series
User Manual**

Version 2021.05

Content

Content.....	1
1. Preface.....	2
2. Application Range	2
3. Product Features.....	2
4. Performance Index	3
5. Function and Structure	4
6. Notes	7
7. Installation and Operation Instruction	8
8. Maintenance	9
9. Repairing.....	10
10. Warranty	11
11. Accessories list.....	11
12. Air flow pattern.....	12
13. Label Description.....	12

1. Preface

Welcome to choose our FH(W) series Walk-in Fume Hood. And we sincerely hope that our product can bring you best help.

In order to make you understand more clearly about our Fume Hood, please read this manual carefully before you start to use it. It is very important for you to use our instrument correctly and safely.

And please put the manual in appropriate position in order to use it at random.

2. Application Range

It is the new technical instrument in air condition workshop and clean workshop. And it is widely applicable in electron, chemicals, mechanism, medicine, university and lab. Fume hood can be used in operation of potential risk or unknown infected factors, and the experiment of flammability, explosive volatilization and narcotics. It can protect operator and samples.

Working environment:

1. Only used in door;

2. Environment temperature: $15^{\circ}\text{C}\sim 35^{\circ}\text{C}$;

3. Relative humidity: $\leq 75\%$;

4. Pressure Range: $70\text{kPa}\sim 106\text{kPa}$;

5. Power supply: AC $\square 110\pm 10\% \square / 220\text{V}\pm 10\%$, $\square 50 \square / 60\text{Hz}$

3. Product Features

Features of FH(W) series Walk-in Fume Hood

Shell: 1.2mm thickness of Cold rolling stainless steel is used, electro-static coating.

Window: More than 5mm thickness of toughened glass

Electrical control system: It has the function of preventing over-load and getting an electric shock. It has stable performance to extend life time.

Sockets: Adopted specialized safety product of laboratory, it has the performance of dirt proof, water proof and acid-alkali proof. The material is PC Flame-retardant fire.

4. Performance Index

Velocity:

Inflow Velocity: ≥ 0.40 m/s

Noise:

The noise is less than 70dB (A) when environment noise is less than 50dB and it is 300mm far away from glass door ,above 380mm from working board.

Resisting pressure: 1390V can not breakdown in 5 seconds;

Grounding resistance: $\leq 0.1\Omega$;

Power supply: AC $\square 110\pm 10\% \square 220V\pm 10\%$, $\square 50/\square 60$ Hz

Select	Model	External Size (L*W*H) mm	Working Zone Size (L*W*H) mm	Power (W)	Light (W)	Total exhaust volume m ³ /h
<input type="checkbox"/>	FH1200(W)	1200*800*2200	980*550*1650	≤ 400	12W*2	≈ 1150
<input type="checkbox"/>	FH1500(W)	1500*800*2200	1280*550*1650	≤ 500	16W*2	≈ 1500
<input type="checkbox"/>	FH1800(W)	1800*800*2200	1580*550*1650	≤ 500	16W*2	≈ 1850

Notice:(1) The power consumed does not include load power in the operation area(load power no more than 500W)

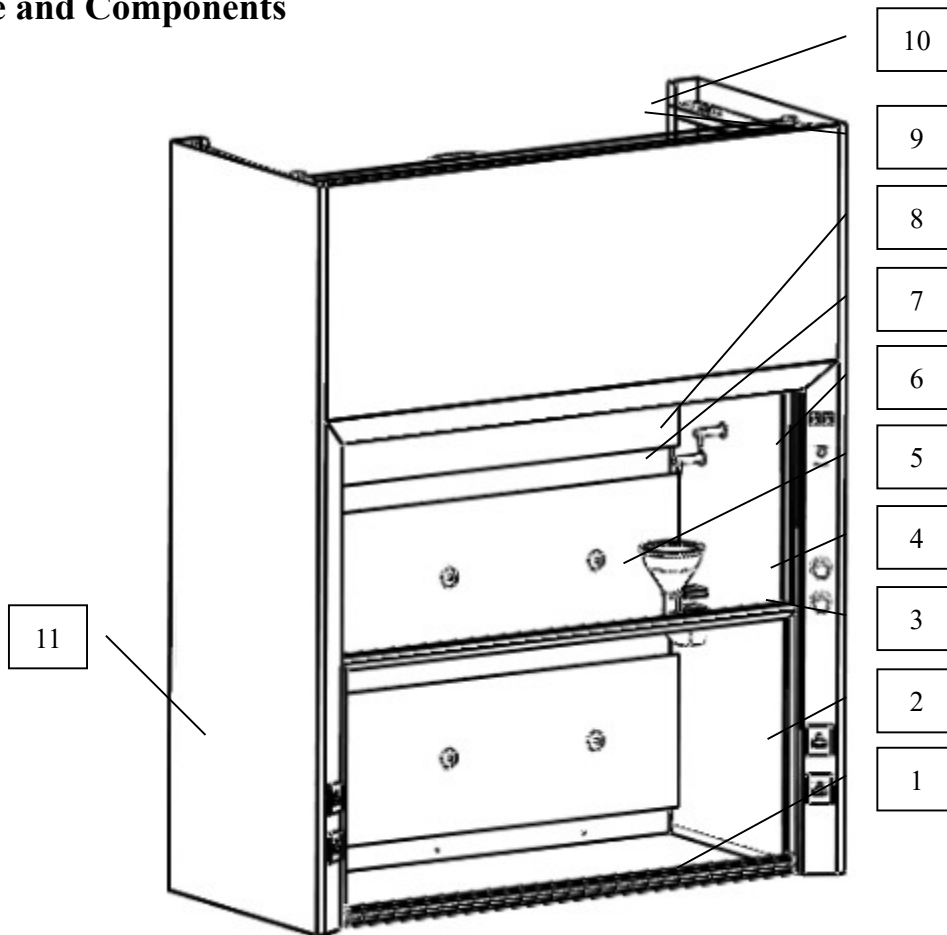
(2) The company reserves the right to product design changes, if there are any design change, without prior notice

5. Function and Structure

Air flow system (Refer to airflow pattern)

Air system is the main part to ensure the performance of the fume hood. It is made up of blower and air duct. As the negative pressure, the room air is absorbed into the work area, then exhaust from the top, finally through the special duct to the outside room.

Structure and Components



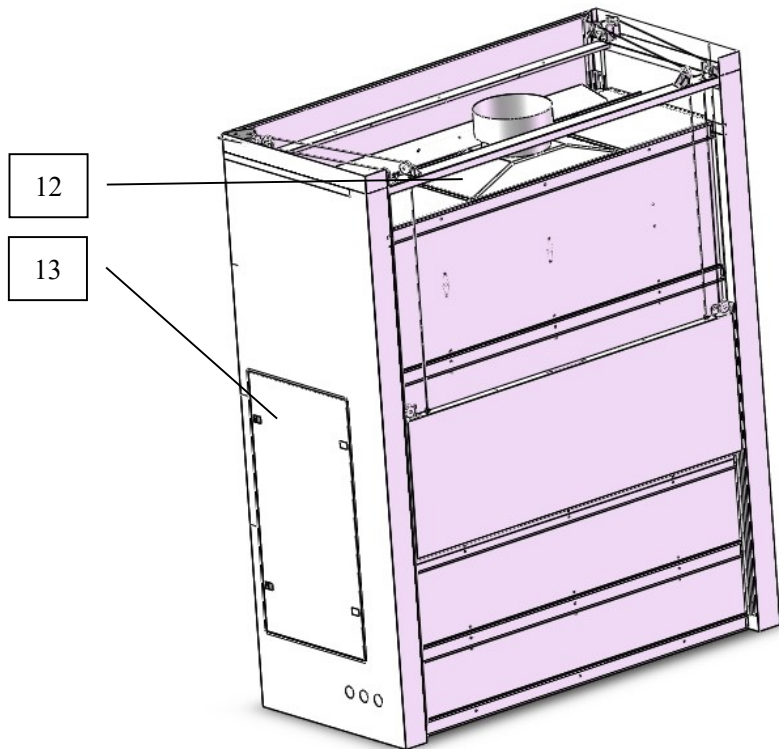


Figure 1 Structure

- | | | |
|-----------------------|-----------------------|-----------------------|
| 1. Glass door handle | 6. Control panle | 11. Left repair port |
| 2. Waterproof socket | 7. Water tap | 12. Exhaust outlet |
| 3. Water control valv | 8. Gas tap | 13. Right repair port |
| 4. Gas control valve | 9. Socket safety pipe | |
| 5. Water sink | 10. Power plug | |

★The first Glass Door/The second Glass Door

The first /second piece of the glass door is made up of glass door and draw gear.

★Fluorescent Lamp

The fluorescent lamp could ensure the working area have enough light. It made up of fluorescent tube.

★Control Panel

There are three function keys on the control panel, the keys as follows: “Fluorescent lamp” , “Power”, “Fan ”, (refer to Figure 2)

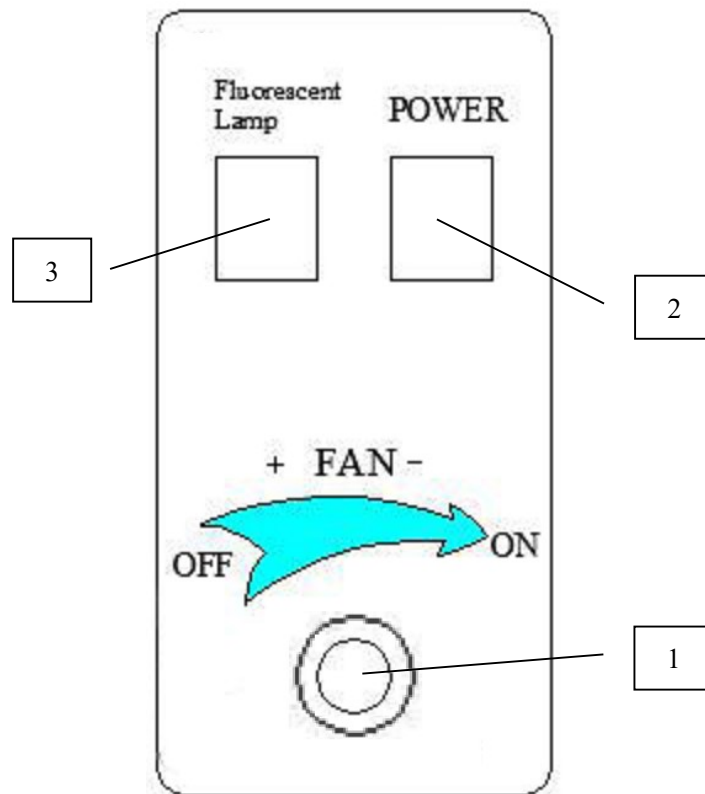


Figure 2

Fluorescent lamp: Fluorescent lamp control key is the key. Each time, indicating the state of the lamp lighting condition and the corresponding indicator change once, that is light is turned on or off.

Power: Switch control, other function keys;

Fan: the rotary knob, right rotation reduction of wind speed, left rotation increase of wind speed, Knob screw to the right side is open the fan running, rotate to the left side is closed the fan.

★Socket

A socket is set on the front lower left and right side plate, it can supply power to the devices in the operating space.



The power of the device using in the working area should less than 500W.

★Fuse Tube

Fuse tubes are installed in the top right of this product. Fuse tubes are set in the corresponding fuse tube seat and power socket, Fuse tube specifications complies with the label right under the tube, when change the fuse tube , please refer to the label.

6. Notes

1. Fume Hood is one of the important lab safety devices. In order to correct usage to ensure safety, please read this instructions and notes carefully. If necessary, please join lab safety and operation skills training;
 2. Read this manual before you use the fume hood.
 3. Please retain this instruction to vide.
 4. All the damage caused by the misuse or change the constructions unauthorized, we will not take any responsibility.
 5. The fume hood should avoid laying nearby the personnel frequency gate/window or the corridor.
 6. The power should have good earthing.
 7. After packing, the package should be store at the following circumstances: the temperature should be less than 40°C; The relative humidity should below 85%; no aggressive gas exists and it has good ventilation.
 8. The front perspective window of the fume hood is made of explosion-proof toughened glass, to keep clean, it should the wiped by wet soft close and kept away from HF and other acid;
 9. The assembly should be cleaned regularly according to the usage, such as flow guiding plate etc;
 10. The flow tunnel and flower etc. should be clean, maintain by specially-assigned person.
 11. Not any device should be placed within 150mm away from the front window, and it's better to adjust the front window to the low height, as the fume hood needs enough space to ensure the airflow.
 12. In the course of usage, please try not to put the soft things (such as the paper towel) on the table top, to avoid it been absorbed in the wind hole or blower;
 13. For our company product modeling and color pictures, please see the real product for detailed information. Models are subject to change without prior notice.
- Declaration: Any danger caused by abuse, we will not take any responsibility!

7. Installation and Operation Instruction

I. Installation

a. Install position

The fume hood is better not be positioned at the place where people pass by frequently, where may block the window or light, where may obstruct the door opening.

b. Preparation before installation

Check the surface of package and damage situation;

If the equipment was delivered in cold weather, put in a warm place for 24 hours before use.

Before breaking the package, move the entire equipment to the place where as close as possible.

c. Clear the package material before installation

Clear the package material and packing fragments inside the case.



Any packing fragments may lead to the damage of filter and air blower.

2) Confirm the complement of accessories according to the list.

Check the condition of fume hood, find if there is any damage on the surface and the component inside the working zone is tight;



Do not put hand in the exhaust fan in any case

e. Checking and Debugging

Run fume food and test its function for trail, to make sure all functions are normal, there should be no noise inside the cabinet, exhaust pipe unimpeded, air blower works like normal.

f. Training

After the installation, train the operators basic use steps and cautions.



Untrained or unqualified persons should not use this equipment.

II Usage

a. Prepare before work

Put the plug in socket, put the other end to net socket, the required power supply is □220v□110V□50 Hz. □60 Hz.

b. Function switch/buttons

See Figure 2 introduction

Operation

When power is ready, turn on the switch, let cabinet electrified. Press the “Power’ key then after the blower runs 5 minutes the cabinet will be ready to use. Please put the instruments for lab use before using the cabinet when you open the glass window. Avoid to open the glass window frequently during the process.

8. Maintenance

I. Maintaining period

a. Each year or every 1000 working hours and before each restart, proper maintaining should be applied.



1. Cut the power off before daily maintain;

b. The working hours counting directly effect the maintaining decision, we recommend make a particular schedule and record as reference

c. Exhaust pipe and outside pipe must be maintained often.

Recommended maintaining and repairing method

a. Surface Clean

To keep the cabinet clean, clean the cabinet periodically (suggest at least every week), wipe the surface by soft rag dipped soap water. Do not spread any chemical liquid on the screen, in order to avoid color fade or dim letters. Window and cabinet surface should be cleaned by special chemicals.

b. Fuse plug replacement

There is a around tube fuse plug base at the right plate of the cabinet, the models are marked in labels that are F10A $\phi 5 \times 20$ mm for power socket, and F10A $\phi 5 \times 20$ mm for zero line, When the plug need to be changed, pluck off power cable plug, press and twist fuse base anticlockwise by straight screwdriver, change the fuse, twist fuse base clockwise. To change the fuse in socket, pry out the fuse base by straight screwdriver to change the fuse, and then push it back.

c. Light change

When the light need to be changed, power off the cabinet, twist off the light tube, replace by a new one, fix the font plate

d. Filter change

If the product is equipped with activated carbon filters or other types of filters, the filters should be replaced in time based on the fume hood's using time and environment. Remove the holding bolt of the back cover plate from the back of the cabinet with a screwdriver, and then remove the bolt on the filter fixed layering with spanner. Take down the old filter, and put a new filter of the same model into the right position of the cabinet according the original installation, then tighten bolts and layering, and install the back cover plate.


9. Repairing

I The preparing work before repairing

a. Make sure the equipment connect to the ground well in order to secure the safety during work. Check whether there are any cable disconnected, short circuit or damage, if any mentioned condition occurred, solve the problem first.

b. Common fault judgment and maintenance

Faults	Inspection area	Solution
Fluorescent light does not work	Lamp holder	Check if the lamp and holder is connected well
	Fluorescent light	Replace fluorescent light
	Wire	Check the wire connection
	Control board	Replace Switch control
Button does not work	Control board	Make sure the power connection and fuse are ok
		Make sure the buttons are not broken
		Make sure the connecting wires are good
		Replace Switch control
Socket does not have power	Socket	Check the socket
	Socket fuse	Check the socket fuse
	Wire	Check the wire connection
Glass door does not work	Guide rail	Check the Guide rail
	Cable	Check the Cable connection
	counterweight	Check the counterweight connection
Equipment has no power	Power	Check if the power is not connected well
	Power cord	Check if the power cord is damaged
	Fuse	Check the fuse
	Switch control of Power	Check if the Switch control of Power is open or if it is broken

 All operations above must be done by qualified electrician under safety condition

(cut power supply). Not allowed to dismantle any other parts of the machine, otherwise the users should be responsible for all the consequences.

When there is any fault which is not mentioned above, if the operator cannot solve it, please ask our service depart. For safety consideration, do not repair by yourself.

The repairing job shall only be done by the persons trained or authorized by us.

Please order accessories from us, note the fume hood model and SN number.

10. Warranty

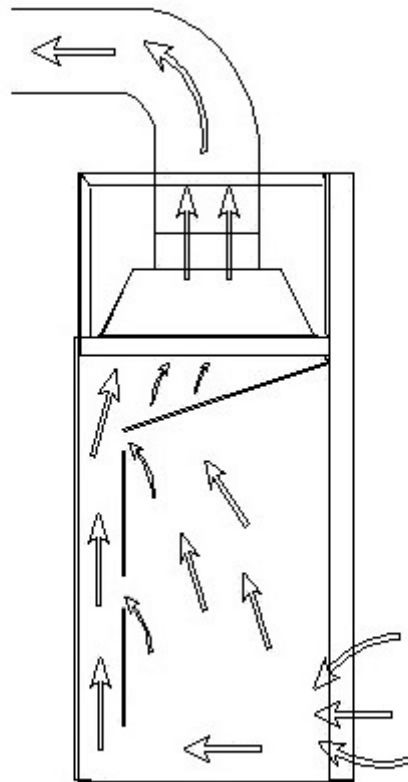
- a. Warranty period is 12 months from shipping date.
- b. The man-made damage is not included in warranty.
- c. After warranty period, we can do maintenance with charges.
- d. We can provide necessary technical drawings or data to the technicians who passed the training.

11. Accessories list

FH(W) series Walk-in fume hood accessories list

SN.	Item	Qty
1	User manual	1 pc
2	Test report	1 pc
3	Lighting lamp	2 pc
4	Fuse 10A	2 pc
5	Fuse 5A	1set
6	PP sink and attachment	1 set
7	Duct	1 pc
8	Pipe strap	1 pc

12. Air flow pattern



13. Label Description

A. Fuse Label:

F10AL250V

10A Fuse Label

B. LOGO: Front of the cabinet

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