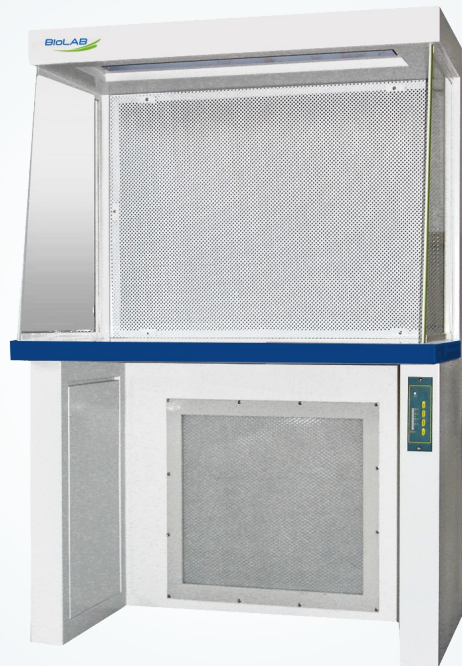


Operation Manual



BLHZ-101

Horizontal Laminar Airflow

Thank you for Choosing Biolab products. Please read the "Operating Instructions" and "Warranty" before operating this unit to assure proper operation.

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01 Introduction

BLHZ 100 series horizontal laminar flow is one of the most general availability equipment which can provide part high-cleaning working environment. It is widely used in the fields like electron, national defense, precision instrument, pharmacy, and in labs of all kinds of scientific research institute, universities and colleges. It can obviously improve the conditions of handicraft, product quality and productivity.

02 Working Principle

BLHZ 100 series horizontal laminar flow is one kind of horizontal air-flow equipment which provides part high-cleaning working environment. The air around space goes through the pre-filter, and then is sent to static-pressure box by blower, and then it goes through the HEPA filter. At last it becomes high-cleaning fresh air around the working table.

03 Structure and Features

- The body of the equipment is made by stainless steel and welded together by machine. Under the body, there is a blower, and upper of it is a static-pressure box.
- In the above of the table, there are fluorescent lighters, and side-glasses on both of left and right sides.
- Under of the table, there is an electro circuit board, and the control panel is on the down-right of the table.
- The whole body is rust-proof handled and painted. The working table is made of stainless steel.
- The body is equipped with universal wheels so that it can be moved to any directions and be fixed very easily.
- The laminar flow is equipped with advanced electrical wind-speed controller which is used to adjust the wind speed, and the handling board is equipped with film bottoms.
- You can keep the wind speed to ideal state by adjusting the working voltage of the blower, and it also can prolong the life-time of the main spare part-HEPA filter.
- The structure drawing of laminar flow is attached at the last page.

04 Technical Parameter

Model		BLHZ-101	BLHZ-103
Required workers		single	double
Dimension	working zone (L×D×H)	850×480×600mm	1680×470×620mm
	External (L×D×H)	920×700×1450mm	1760×700×1450mm
Purification Rank		Class 100@≥0.5um(USA FEDERAL STANDARD209E)	
Wind speed		0.3-0.5m/s (Adjustable)	
Noise		≤65dB(A)	
Lighting		≥300Lx	
Max power		0.4kw	0.8kw
Power supply		AC200V/50Hz	
Weight		130 Kg	200Kg
HEPA Filter and quantity		820×600×150 1pcs ≥99.99%@0.3μm	820×600×150 2pcs ≥99.99%@0.3μm
Fluorescence Lamp and quantity		20W×1pc	40W×1pc
Ultraviolet lamp and quantity		20W×1pc(1BU)	40W×1pc(1CU)

05 How to Install

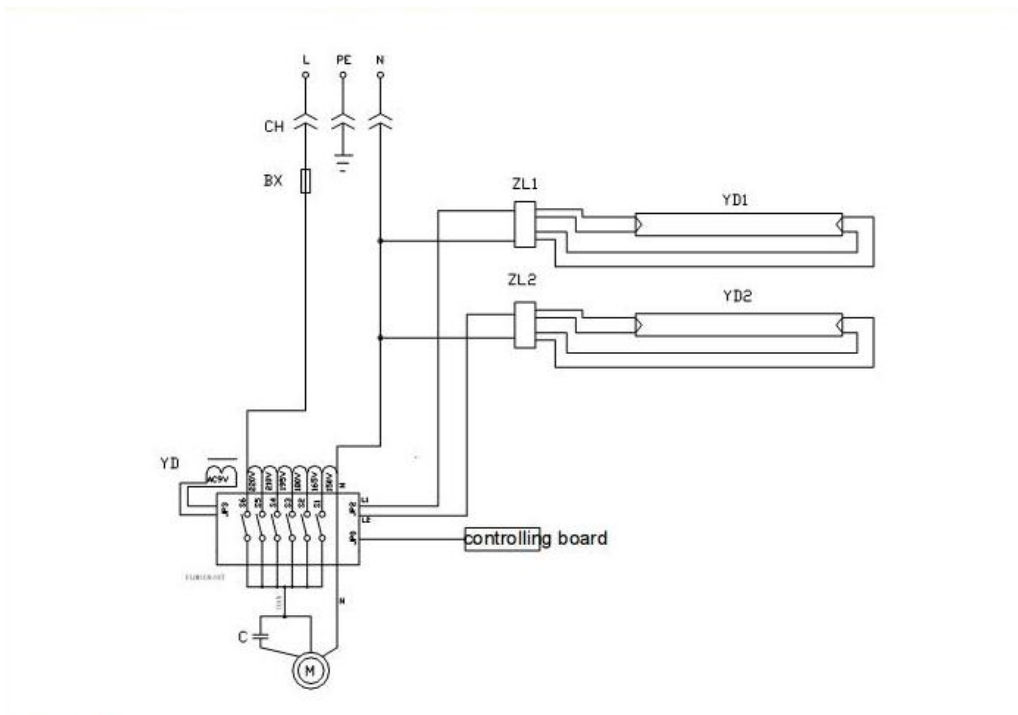
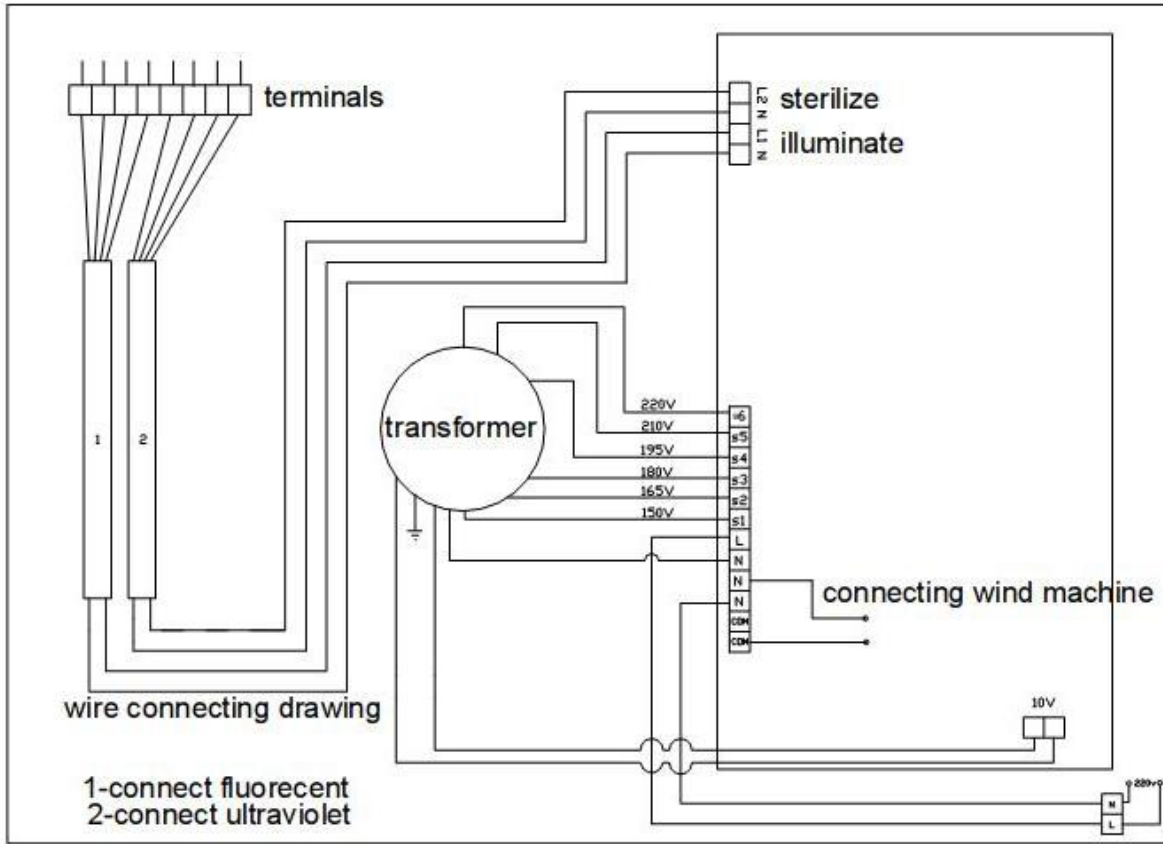
- The equipment should be installed in workshop with different ranks and in room with sealed-up air conditioning.
- The equipment should be far away from dust and shaking headstreams.
- The universal wheels should be locked after locating the equipment.

06 How to Use

- The equipment should be powered on 20 minutes before using.
- The equipment and the air space around it should be cleaned by high vacuum sweeper or other high quality cleaners after it is newly installed or without being used for a long time.
- Unnecessary things are forbidden in the working table in avoid of disturbing the cleaning air flow.
- It is forbidden to note in the table to avoid disturbing the cleaning air flow.
- It is required to measure the wind speed by wind-speed measuring instrument in regular intervals. If the speed can not reach the requirement, you can adjust the voltage in order to reach the requirement.
- The environment temperature should not exceed 50 centigrade degrees, and should be far away fire.

07 Maintenance

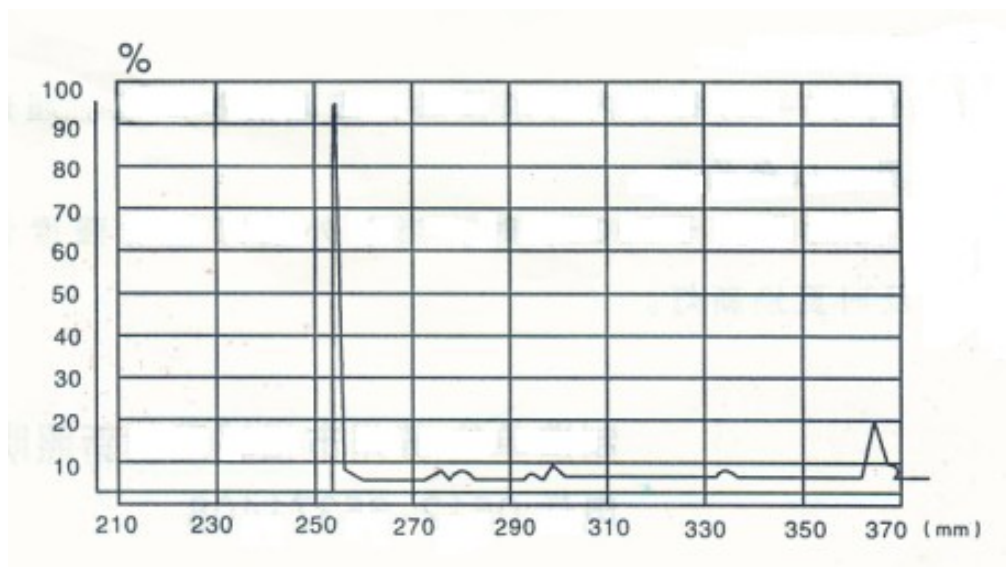
- The pre-filter should be dismantled and washed every 3-6 months, which depends on the cleanliness of the environment.
- The HEPA filter should be changed by new one when the wind speed can not meet the requirement with the voltage in maximum level. The HEPA filter size is 820x600x50(mm)
- When changing the HEPA filter, you can open the indefinite board in the back and take out the old one, then install the new one. Please be careful of the arrowhead in the filter which the head is the direction of air flowing.
- After changing the HEPA filter, you should test that the filter around is completely sealed up with using Laser Particle Counter.
- The electrocircuit board is in electrical equipment box under the working table. If there is any electric malfunction, please refer to the drawings of electric principle and wire connecting diagram as follows:



Serial No	Code name	Name	Specification	Quantity
1	CH	Single socket	CTD/CZD-3	1
2	BX	Fuse	5A	1
3	YD	Transformer	20W	1
4	M	Blower	220V300W	1
5	C	Capacitor	400V6UF	1
6	ZL1	Rectifier	20W	2
7	YD1	Fluorescent lamp	20W	1
8	YD2	Ultraviolet lamp	20W	1

08 Safety Instruction

- Inside the working area of the laminar flow bench, there may be a UV light installed, the UV light is used to sterilize goods, during the process of sterilization, operators are forbidden to get close to the laminar flow bench, as its wave is harmful to human eyes and skin. Persons have to wear a pair of protective spectacles when necessary to get close to it during the UV light is on for a short time (1 to 2 minutes), if have to stay for more time, it is necessary to wear a face guard.
- See the radiation diagram of UV light below:





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