



UV STERILIZATION CABINET

BEM2G1

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1. Performance & Main Features

This product adopts the installation method of three-sided ultraviolet germicidal lamps. On the one hand, it uses the synergistic sterilization effect of ultraviolet rays and ozone, and on the other hand, uses ozone to sterilize the parts that cannot be irradiated by ultraviolet rays, and kill viruses or bacteria on the surface.

2. Scope of Application and Conditions

The simultaneous action of ultraviolet light and ozone can kill various microorganisms, including bacterial propagules, spores, mycobacteria, viruses, fungi, rickettsia and mycoplasma, etc., and can destroy botulinum toxin. All surfaces, water and air contaminated with the above microorganisms can be sterilized with ultraviolet light and ozone.

The suitable temperature range for ultraviolet disinfection is 20°C to 40°C, and the disinfection effect is better within this temperature range.

When using ultraviolet rays and ozone to kill microorganisms protected by organic matter, the disinfection time should be appropriately extended. Suspended particles in the air and water can also affect the disinfection effect.

3. Main Bactericidal Factors and Strength

The main bactericidal factors of this machine are ultraviolet rays and ozone, and the intensity is as shown in the table below.

Nominal power/ W	8	13	15	18	30	36
UV intensity($\mu\text{W}/\text{cm}^2$)	22	35	50	62	100	135

Table 1

4. Types of Killing Microorganisms

Kills common bacteria in the air.

5. Product Structure and Working Principle

Using three-sided high-intensity ultraviolet ozone sterilization method, on the one hand, the synergistic sterilization effect of ultraviolet rays and ozone is used, and on the other hand, ozone is used to sterilize the parts that are not irradiated by ultraviolet rays.

DNA is relatively easy to absorb ultraviolet rays in the C-type band, especially the most sensitive to ultraviolet rays around 253.7nm.

Ultraviolet germicidal lamp is to destroy and change the DNA (deoxyribonucleic acid) structure of microorganisms through the irradiation of ultraviolet rays, so that the bacteria die immediately or cannot reproduce offspring, so as to achieve the purpose of sterilization.

Ozone is extremely unstable and releases new ecological oxygen when it decomposes. The new ecological oxygen has a strong oxidizing ability, and has a strong lethality to the resistant microorganisms such as viruses, sporozoites, etc.

Ozone can oxidize and decompose the glucose oxidase necessary for the internal oxidation of glucose in bacteria and viruses. And directly interact with bacteria and viruses, oxidize and penetrate their cell walls, destroy their organelles and ribonucleic acids, and decompose macromolecular polymers such as DNA, RNA, proteins, lipids, and polysaccharides. The metabolism and reproduction process of bacteria and viruses are destroyed, thereby taking the life of bacteria and viruses. At the same time, it can also penetrate the cell membrane tissue, invade the cell membrane and act on the outer membrane lipoprotein and the internal lipopolysaccharide, causing the cell to undergo permeability distortion, resulting in cell lytic death. And the genetic genes, parasitic strains, parasitic virus particles, bacteriophages, mycoplasmas and heat sources (endotoxins) in the dead bacteria are dissolved and died.

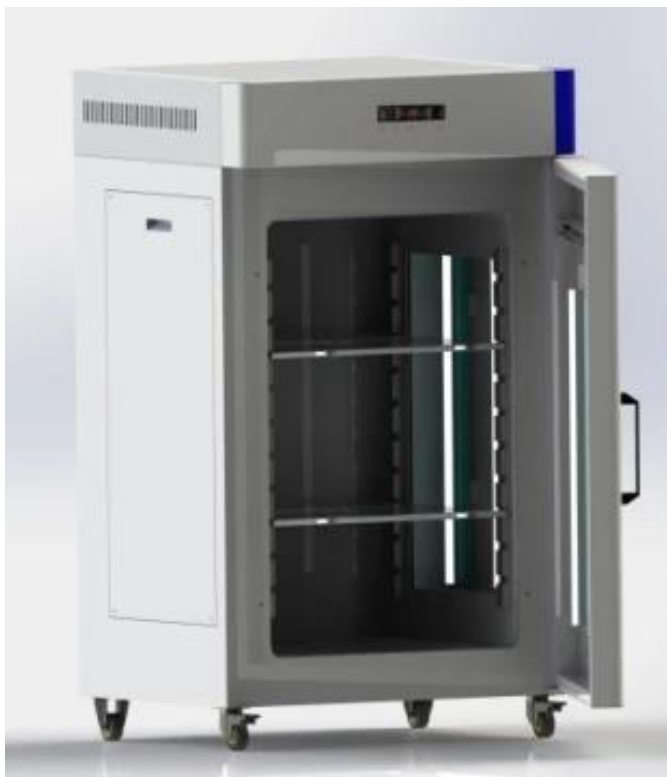


Figure 1

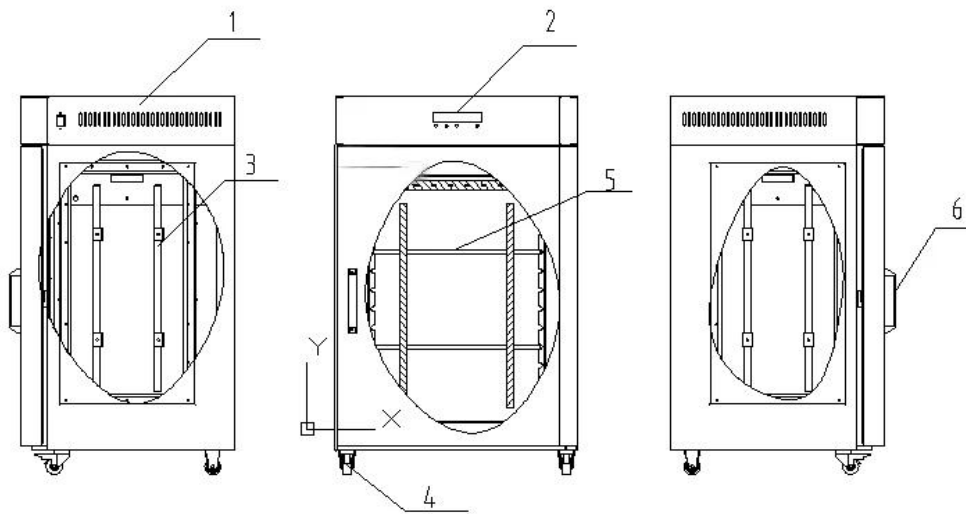


Figure 2

Structure Diagram

The main components of the product:

1. Housing 2. Control parts 3. Ultraviolet germicidal lamp 4. Universal casters 5. Partition 6. Outer door handle

6. Technical Parameters

Product name	UV sterilization cabinet(including ozone)
Model	BEM2G1
Volume	200L
Power supply	220V 50HZ/120W
Internal dimensions	518mm*523mm*778mm
Dimensions	750mm*663mm*1200mm
Package size	875mm*788mm*1265mm
UV wavelength	253.7nm/184.9nm
Sterilization lamp	UV sterilization lamp/UV sterilization lamp(including ozone)
Sterilization lamp material	Quartz glass with high UV transmittance
Sterilization method	Three-sided UVC Ultraviolet + Ozone
Partition	Adjustable position for multiple layers

Table 2

Note: It is recommended not to use this product for disinfection and sterilization of medical and sanitary equipment.

7. Installation Method

Unpack the BEM2G1 UV sterilization cabinet, take out the machine, install the door handle independently, and plug in the power to use.

8. Operation method

- 1) Put the items to be sterilized into the sterilization cabinet and close the outer door (such as the interior of the sterilized items, it is recommended to adjust the smooth surface).
- 2) Turn on the power, turn on the switch, the display panel will flash once and then turn off.
- 3) Press the "ON/OFF" button, the "POWER" indicator light is on, double-click the "SET" button (that is, the "sterilization status" button), after the display is 60 minutes, wait for 3 seconds, the ultraviolet sterilization lamp lights up, then enter the "sterilization status" .
- 4) After the time countdown is over, the ultraviolet germicidal lamp goes out, and one cycle of disinfection ends.

9. Transportation & Storage Conditions

- 1) When the product is moved or transported, the inclination angle should not be greater than 45°, and care should be taken to avoid damage to the instrument.
- 2) The sterilization box cannot be transported upside down to avoid collisions during transportation. The shelves inside the sterilization box should be fixed to avoid shaking and bumping inside, and damage to the lamps.

10. Notes

- 1) Do not touch the ultraviolet germicidal lamp tube directly, and do not look directly at it during disinfection to avoid burning eyes and skin.
- 2) During the use, the surface of the ultraviolet germicidal lamp shall be kept clean. Generally, it shall be wiped with an alcohol cotton ball every two weeks. When dust and oil stain are found on the surface of the lamp tube, it shall be wiped at any time.
- 3) If the ambient temperature is lower than 20 °C or higher than 40 °C, the relative humidity is greater than 60%, or there is too much dust and water mist, the irradiation time of disinfecting objects in the box shall be appropriately extended.
- 4) The ultraviolet germicidal lamp should reach sufficient intensity, such as reducing the intensity of the new lamp to 70 μ W/cm² (power \geq 30W) or reduced to 70% of the original new lamp intensity (power < 30W) shall be replaced.
- 5) It is recommended to test the ultraviolet radiation illuminance once every 3-6 months.
- 6) Ozone is a strong oxidant, which can damage many kinds of articles. The higher the concentration is, the more serious the damage will be to articles. It can make copper strip appear green rust, rubber aging, discoloration, elasticity reduction, so as to become brittle, broken, and fabric bleaching fade. Pay attention when using.
- 7) After disinfection, please stand still for 1h and open the door to take things. (Please pay attention to

timely indoor ventilation after use)

8) Disinfected objects should not be stacked in multiple layers or densely. The stack is too thick and dense, the ultraviolet radiation cannot reach, and the ozone gas can not penetrate in place, resulting in unsatisfactory disinfection effect.

11. Troubleshooting

Before diagnosing the fault, please confirm whether the power supply is well connected, whether the power cord is obviously damaged, and whether the fuse is in good condition.

Fault	Checking part	Method
Button touch not working	Control board	Make sure the power is connected and the fuse is in good condition
		Make sure the keys are not damaged
		Make sure that the connecting wire is not in poor contact
		Replace the control board
Device does not power on	Power supply	Power is not connected
	Fuse	Is the fuse in good condition?
	Control board	Replace the circuit board

Table 3

(1) The operation of the above electrical components must be carried out by trained and qualified maintenance personnel under safe conditions (cut off the power supply). And other parts must not be disassembled, otherwise the consequences shall be borne by the user;

(2) If you need to order parts, you can find our technical service department, please indicate the model and number of the room temperature ultraviolet ozone sterilization cabinet you purchased.

Note: If the user cannot solve the fault, please contact the agent engineer as soon as possible, and do not handle it yourself, otherwise the warranty will not be granted.

12. Maintenance

Frequency	Operation
Every day	Cleaning the inner cavity and the spacer
Every week	Clean the door seal
Every 1-3 year	Replace the door seal
Wearing parts	UV sterilization lamp(including lamp holder)
	Fuse

Table 4

Note: The wearing parts of the above ultraviolet germicidal lamps and other accessories are consumables, and the service life is not covered by the warranty. For details, please refer to the instruction manual.

Label Description



Disinfection lamp warning label F10AL250V Grounding Mark

13. Warranty

1. The warranty period is twelve months from the date of purchase (excluding the wearing parts indicated in this document).
2. If the instruments and equipment within the warranty period are invalid or damaged due to improper use by the user, the company does not undertake the warranty obligation.
3. Equipment use period of 5 years.
4. Provide equipment drawings and some necessary technical data to maintenance units and maintenance personnel trained and approved by the company.

14. Packing List

No.	Name	Qty.	Remark
1	UV Sterilization cabinet	1pc	
2	Partition	2pcs	
3	User manual	1pc	
4	Warranty card	1pc	
5	Certificate	1pc	
6	Packing list	1pc	
7	10A fuse	2pcs	
8	Power cord	1pc	
9	Door handle	1pc	Including 2 m6x20 bolts



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