KALMOR®

Oxygen cluster ion deodoraizer

Levion

The oxygen cluster ion eliminates virus and odor in the air, so that it create the comfortable environment.

■ Feature

- 1) The micro plasma discharge which makes a great deal of ions occur high-efficiently.
- 2) Cleaning and an exchange of consumables are easy, so the maintenance is excellent.
- 3) It's a AC adapter system, so safety is very high.

Product line up

Sylphide

Interior installation type (exposure)

This model ideally use for garbage place in apartment complex. Mainly sets celling or surface of the wall near the air supply opening. Because of the static sound type cross flow fan, this product can get high deodoraization effect even if the aeration system which is hard to get the aeration current like a door louver.

* When this product operating, please control it by the interlocking operation with the ventilation equipment in basically.

Models	Sylphide 1	Sylphide 2	
Effective capacity	110m³ 220m³		
Dimensions (W×H×D)	450×140×145mm		
Energy Consumption	27W	40W	
Weight	4.5kg	5.0kg	



Piccolo

Super small type

This model ideally use for small spaces such as each floor garbage place in high rise tower apartment or elevator. This product puts a fan on the main body and generate enough quantity of ions although being small. Setting is very flexible with an attached

stay, it can set in any places including a ceiling and the wall surface.

* When this product operating, please control it by the interlocking operation with the ventilation equipment in basically.

Models	Piccolo 60m³ 79×116×50mm	
Effective capacity		
Dimensions (W×H×D)		
Energy Consumption	7.5W	
Weight	0.54kg	





KALMOR oxygen cluster disinfecting and deodorizing device

■ What is the Oxygen ion cluster?

An oxygen ion cluster is a aggregation which attracted 10~60 oxygen molecule ions. In normally, a lot of oxygen ion cluster made in natural world when sunbeam hits the air. The Levion electrifies atmospheric oxygen molecules with an electric discharge element and creates a large quantity of oxygen cluster ions artificially from slight electricity.

Operating requirements

Operating temperature : 0° to 50°C(32°to122°F)

Life of the ion: reduce to half in approximately 40 seconds

Control system: Interlocking operation

with the ventilation equipment

Relative humidity : Under 70% Power supply : 100V AC

*AC power cable corresponds to only 100V.

When using the other voltage, it has to change the AC cable.

Sylphide mini

Interior installation type (exposure/ceilling built-in)

The model who covers the middle capacity area of Sylphide and Piccolo. Because the noise is quiet, you can use in the room. It can also be used as the ceiling built-in type by using option component. Therefore it's possible to install without spoiling the appearance in the room.

Models	Sylphide mini		
Effective capacity	60m ³		
Installation	Exprosure	Ceiling built-in	
Dimensions (W×H×D)	150×150×56mm	200×200×135mm 6W	
Energy Consumption	6W		
Weight	0.65kg	0.85kg	



RAITEI

Duct installation type

This devicce install secondary side supply air duct of AHU, and an oxygen cluster ion is supplied to an interior from interior outlet of air. It's most suitable for use in the large-scale space used by the first kind ventilation. It's possible to install it in the duct directly using an exclusive frame. It's not necessary casing unit. The RAITEI has inter locking switch with AHU and the ion adjustment dial, so controller and control panel are unnecessary.

Models	Raitei 2400	Raitei 4800	Raitei 7200
Effective capacity	2400m ³ /h	4800m ³ /h	7200m ³ /h
Dimensions (W×H×D)	340×380×256.5mm		
Energy Consumption	26W	47W	68W
Weight	4.3kg	4.7kg	5.0kg





KALMOR°

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Deodorization principle

■ Dedorization

A huge oxygen cluster ion wraps small smell molecules

Most of the odor ingredients which can feel with human nose are very small molecules, and molecular weight is between 17 to 300. The oxygen cluster ion has about 1000~2000 molecules weight, that oxygen cluster ion can wraps odor ingredients easily and breaks them by ion resolution reaction.







An odor infredients

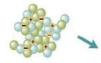
When oxygen cluster ion wraps odor ingredients and gives + and - ions to them, then an ion resolution reaction is caused.

After odor ingredients were broken, they spread in atmosphere and clusters back to non-smell moleculars.

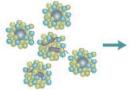
■ Bacteria elimination

Interrupting nitrogen supply which is necessary for the growth of bacteria and the virus.

The oxygen cluster ion shows a high sanitization effect for bacteria and a virus floating in the air. The oxygen cluster ion wraps bacteria and viruses and interrupt nitrogen supply. If there is no nitrogen, they can't grow and die. This is how the oxygen cluster ion kills bacteria and virus.



An oxygen cluster ions



The oxygen cluster ion wraps bacteria and virus and drop down from the air. At the same time, oxygen cluster ion interrupt nitrogen for bacteria and virus and suffocate them.



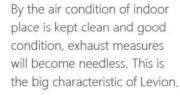
Dead bacteria and virus fall into ground and water, and disintegrated to protein by microbes.



An odor infredients

Ideal for

The deodorization and sanitization by the oxygen cluster, show an effect at various places. Levion deodorize various indoor places that is a source of odor such as garbage place or wastewater treatment facility,





Garbage room





experimental animal facility



Rest room



Elevator



wastewater treatment facility



Disposal plant



Shopping mall





KALMOR oxygen cluster disinfecting and deodorizing device

Deodoraizing effect





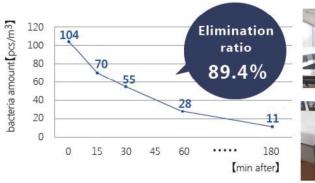
- * 6 phases of odor intensity
- 0 Non smell
- Very weak, possible to smell
- 2 Weak smell that understanding what's smell
- 3 Smell easily
- 4 Strong smell
- 5 Smell intence



- * 9 phases of comfort / discomfort smell index
- Too Discomfort
- / 4 Too comfort
- Very Discomfort
- / 3 Very comfort
- Discomfort
- / 2 Comfort
- Discomfort a little / 1 Comfort a little
- Non smell

Bacteria elimination effect

■ Bacteria eliminate examination by third party







■ Bacteria eliminate test at certain office

Natural fall Before install

After install







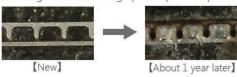
About maintenance

Maintenance is simple and easy, That must be the thing to move every day

- •When the element got dirt intensely, just wipe off the surface with ethanol.
- •Once in 8,000 hours, blade exchange is necessary. Blade exchanging is very simple and easy,
- * When order or any questions, please contact our sales agency below or us.

Discharge blade should be replaced after about one year.

Discahrge blade discharge part expansion photo







▲ Discharge Blade

▲ It can be exchanged easily

