

Sharp's Powerful Plasmacluster Air Purification Process Explained:

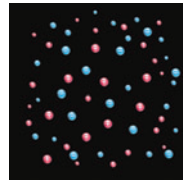
The Sharp Plasmacluster range provides you with a cleaner and healthier environment, quietly and efficiently. The Air Purifier range, ideal for allergy sufferers, combines Plasmacluster Technology alongside a high-tech filtration system to break down viruses and remove dust, pollen and odours.

The Plasmacluster Ion Generator has been engineered with a higher density of Plasmacluster ions for targeted viral, bacterial and mould control.

How does Plasmacluster Technology work?

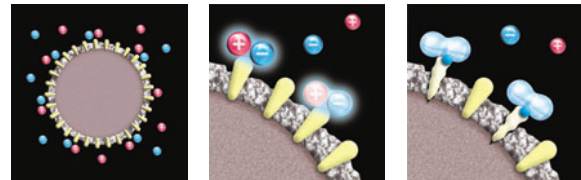
ONE Release Plasmacluster ions

High density Plasmacluster is patented technology that mirrors the positive and negative ion sterilisation process found in the natural world.



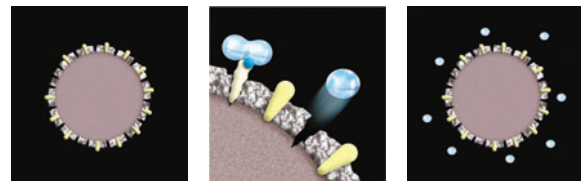
The ion-generating unit uses a high voltage to enable an electrical discharge, generating the ions and surrounding them in water to ensure their longevity.

TWO Attack airborne microbes



When airborne these positive and negative ions fasten to the surfaces of suspended microbes, forming highly oxidising hydroxide (OH) radicals and instantly removing the hydrogen (H) from the surface proteins. This results in the physical breakdown of the surface membrane of the microbe, rendering it inactive.

THREE Return to the air as water



OH radicals and H combine together to form water (H₂O) and simply return to the atmosphere.



Which model do I need?

Are you concerned about mould build up?

Plasmacluster technology breaks down airborne mould spores¹ effectively suppressing mould growth on rubber window frames and difficult to clean areas. Unpleasant odours caused by mould build up are reduced.



Recommended model choice:
Sharp Plasmacluster Generator

Are you concerned about pollen or household dust allergens?

Plasmacluster technology breaks down dust mite allergens in the atmosphere² while eliminating the build up of static electricity on furniture, sofas and clothing, effectively removing stuck on allergens.

The powerful extraction and filtration system works to filter out excess dust particles and pollen that are circulating in the air.



Recommended model choice:
Sharp Plasmacluster Air Purifiers

Do you have a concern about viral control?

Plasmacluster technology has been proven to remove nearly 99% of airborne viruses in up to 10 minutes³.



Recommended model choice:
Sharp Plasmacluster Generator

Are you concerned about indoor odours?

The Plasmacluster range works to remove unpleasant pet and household odours that can accumulate in closed spaces as well as breaking down adhering odours on furnishings and clothing⁴.



Recommended model choice:
Sharp Plasmacluster Air Purifiers

Model	KC-860EKW	KC-850EKW	KC-930EKW	IGA-10EKW
Ion density	7,000	7,000	7,000	25,000
Plasmacluster indicator light	Yes	Yes	Yes	Yes
Humidifier tank capacity	4.3L	4.0L	2.1L	-
Humidifying capacity	730ml/hour	600ml/hour	350ml/hour	-
Recommended room size	48m ²	38m ²	21m ²	10m ²
Inverter operation	Yes	Yes	Yes	-
Air flow m ³	396	306	180	102
Dust filter	Anti-Microbial HEPA	Anti-Microbial HEPA	HEPA	-
Deodorising filter	Washable	Washable	Washable	-
Pre filter	Yes	Yes	Yes	-
Life of HEPA	Up to 5 years	Up to 5 years	Up to 2 years	-
Life of humidifying filter	Up to 2 years	Up to 2 years	Up to 1 year	-
Odour sensor	3 Level	3 Level	-	-
Dust sensor	11 Level	9 Level	3 Level	-
Temperature humidifying sensor	Yes	Yes	-	-
DIMS VHD	398 x 627 x 288	378 x 586 x 265	375 x 535 x 205	140 x 160 x 345
Power consumption at low air stream	5.5w	3.8w	4.5w	6.5w
Noise level at low air stream	25dB	22dB	22dB	34dB

*The target floor surface areas for which the emitted ion density can be measured at around the centre of the room, approx. 1.2 meters from the floor. The numbers of ions will vary according to operation mode.

1. Tested by Japan Food Research Laboratories. Test method: Mould growth was compared after 5 days as directed by the JISZ2911
2. Tested by Hiroshima University Graduate School of Advanced Science Matter. Test method: Effect of dust mite allergens in a room of 13m² was measured in line with the Enzyme Linked Immune Sorbent Assay method.
3. Tested by Retroscreen Virology Ltd UK. Test method: viruses were suspended in a 1m³ box and the percentage of the airborne virus that had been removed was measured
4. Tested by Japan Spinners Inspecting Foundation. Test method: The effectiveness of deodorising a cloth swatch impregnated with cigarette smoke odour components was evaluated using the six level odour intensity indicated methods. Sharp converted and calculated the results.

While the Plasmacluster range can inactivate suspended viruses and other contaminants it can not create a completely sterile environment. Sharp does not guarantee its ability to prevent microbial infection. The Plasmacluster ion generating units in the IGA10EKW will need to be replaced periodically to enable continuous stable emission of high-density Plasmacluster ions. After approximately 17,500 hours, roughly 2 years when operated continuously for 24 hours a day, an indicator lamp will flash advising that the Plasmacluster ion-generating unit needs to be replaced. The unit will stop operating after about 19,000 hours (2 years and 2 months) if the Plasmacluster ion generator is not replaced. The Plasmacluster ion generating unit may need to be replaced sooner when used in some environments or locations (such as locations of suspended cooking oil droplets or other oil components, dusty or humid locations, or locations where sprays or chemicals are used). © 2009 Sharp Electronics (UK) Ltd. All rights reserved.™ Plasmacluster is a trademark of the Sharp Corporation.

SHARP

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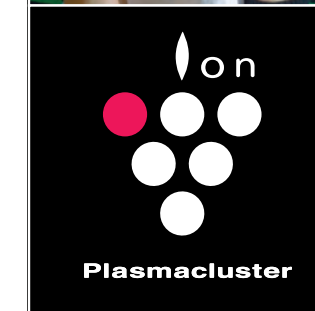
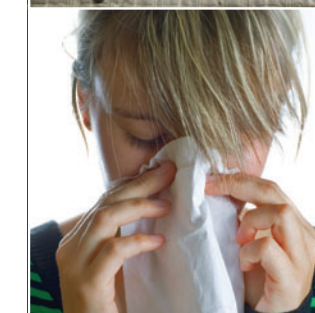
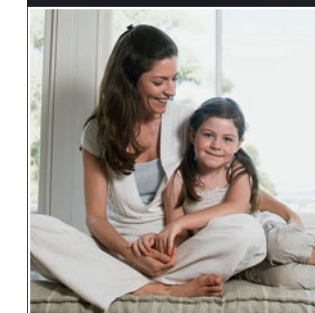
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SHARP

Plasmacluster Technology

A revolution in air treatment

We clean our hands and surfaces all the time, why not the air we breathe?



Proven Effectiveness of Plasmacluster Ions

Inactivation of Viruses

Plasmacluster ions break down and remove projecting spike-shaped proteins of suspended viruses, and reduce their effects.

Experiments showed:

A. Viruses were suspended in a 1m³ box with a Plasmacluster ion density of 7,000 ions/cm³. The percentage of airborne viruses inactivated was 99% within ten minutes.
B. When the Plasmacluster ion density was increased to 50,000 ions/cm³, the percentage of airborne viruses inactivated increased to 99.9% within ten minutes.



Inactivation of Mould

Plasmacluster ions cut through and remove the cell membrane proteins on suspended mould surfaces inhibiting their effects.

Experiments showed:

C. Airborne mould was suspended in a chamber with a floor area of 31m². Plasmacluster ions with a density of 3,000 ions/cm³ were emitted and measured with an air sampler. Elimination reached a minimum after 90 minutes.
D. Adhering mould was grown on PVC plates for 5 days. After being exposed to 30,000 Plasmacluster ions, the mould was reduced by up to 25% of the total.



Inactivation of Allergens

Plasmacluster ions cut through and remove proteins in suspended allergens generated by dust mite faeces and dead mites, reducing their effects.

Experiments showed:

E. The effect of dust mite allergens in an uncleaned room measuring 13m², showed that with a Plasmacluster density of 3,000 ions/cm³, a zero increase in allergens occurred.



Odour Reduction

Plasmacluster Technology gently deodorises the surrounding air, leaving air smelling clean and fresh.

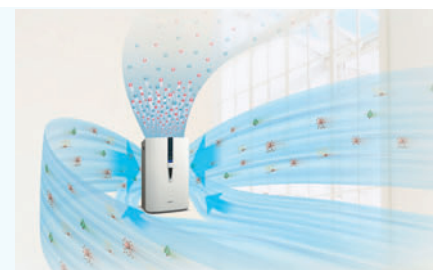
Experiments showed:

F. Plasmacluster Technology is also proven to breakdown odour components. In a room test with a floor space of 20m² and ion density of 20,000 ions there was a significant reduction in odour after 1 hour.



Plasmacluster Ions remove static electricity

Have you ever noticed when you walk in a room you get a slight shock when you touch the door knob, or that your clothes make a crackling noise when you remove them? This happens due to a static charge. Static electricity can make deposited house dust and pollen stick to furniture, sofas and clothing. By removing the static electricity dust and pollen can not cling to furnishings, so can then easily be removed through the Plasmacluster Air Flow System.

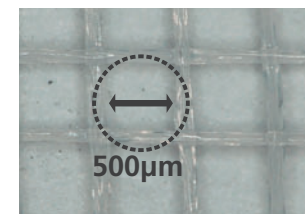
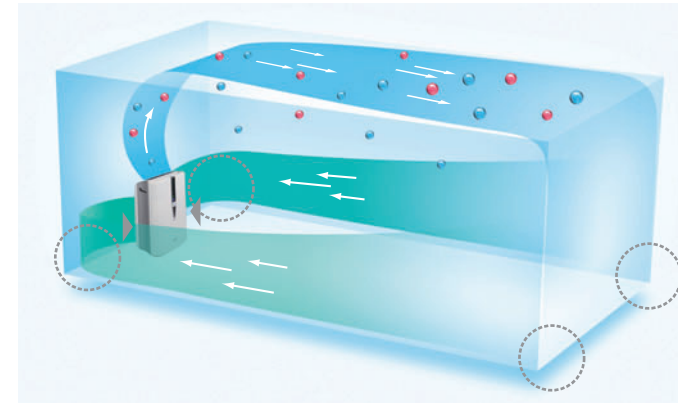


High Performance Filtration System

Removes micron sized dust particles

Almost all the dust in the air circulates in the room without ever descending to the floor and approximately 80% of house dust is at the microscopic level of 0.3 to 0.5 microns.

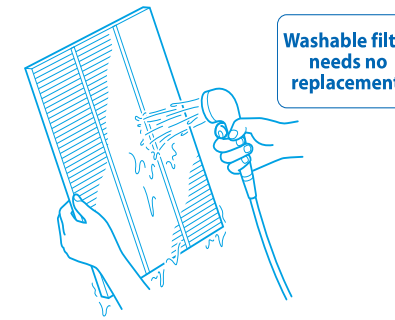
Sharp's aerodynamic nozzle provides a stable and faster airflow, circulating air quickly throughout the room enabling quick removal of dust and particles, even from the far corners.



Micron Mesh filter

Micron Mesh Pre-Filter

Stops microscopic dust particles to facilitate the high performance of the HEPA filter. This dust can easily be washed or wiped away from the filter without detaching the panel.

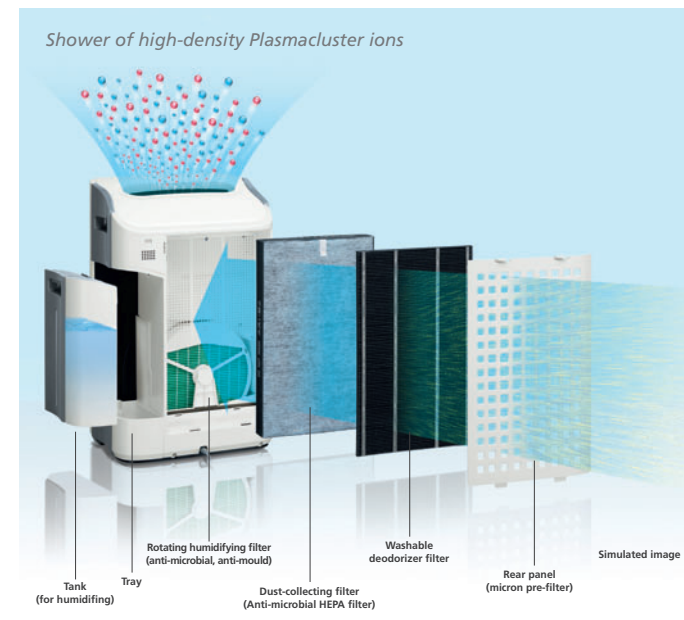


Washable Deodorising Filter

Removes odours from the air, and can be easily washed so there is no need to ever replace it.

Anti-Microbial HEPA Filter

Catches up to 99.97% of 0.3 micron household dust particles, providing almost perfect dust removal and only needs to be replaced every 5 years. The KC930EKW has a combined HEPA and dust collecting filter with a 99.5% dust collecting performance at 0.3 microns.



Proven Effectiveness

99.8% of allergens in dust mite droppings are removed¹

99.9% of pollen allergens are removed²

99.9% of viruses are removed²

99% of bacteria is removed³

1. Tested by Japan Synthetic Textile Inspection Institute Foundation
2. Tested by Hiroshima University Graduate School of Advance Matter
3. Tested by the Chinese Centre for Disease control and prevention (CCDC) Laboratory for Infectious Disease and Control

Built in Humidifier

The Plasmacluster Air Purifier Range comes with a built in humidifier, to help you keep your indoor environment at the optimum humidity.

This constantly senses the room's moisture conditions to automatically maintain the room humidity at 60%, which can prevent nose and throat dryness and limits viral activity. The humidifier is equipped with an anti microbial and anti mould filter for peace of mind use.

In addition to this Plasmacluster Technology can also help to preserve the skins natural moisture².



1. The effectiveness of humidity depends on the season as well as the size and temperature of the room.
2. Contracted clinical trial: Soiken Inc.



Easy to use functionality

With built in sensor checks for dust, odour and humidity, as well as simple and easy to use controls, it is easy to manage the air quality within your home. The control panel is equipped with separate options for using the air purifier with or without the humidifier, as well as clean light indicators to help you effectively maintain the filtration system.

Plasmacluster Ion Generator

For effective viral and mould control

The IGA10EKW harnesses Plasmacluster Technology at a density of 25,000 ions per cubic meter¹.

Airborne viruses thrive in closed spaces, increasing the spread of flu and other contaminants, making us feel ill, tired and sluggish. The Plasmacluster Ion generator directly targets suspended viruses and microbes in the air, without the need for a filtration system. The highly advanced air flow system ensures that the Plasmaclusters are effectively distributed so viruses and bacteria are treated throughout the room.

With a simple one-touch button operation and no replacement filters the IGA10EKW, at a recommended room size of 10m² is ideal for home offices and bedrooms. For more information about the Sharp range of Plasmacluster Ion Generators, please visit www.plasmacluster.co.uk.



1. When used in recommended room size