

Plasmacluster Ion Generator

A Revolution in Air Treatment

Let's

PLANT SOME FRESH AIR INTRODUCING SHARP PLASMACLUSTER ION GENERATOR

Now let clean fresh air grow around you with SHARP's one-of-a-kind technology. It generates ions similar to those found in Nature, which destroy air borne viruses and other air impurities, thus, purifying the air around you. Just like plants do. Now breathe clean air, everywhere.

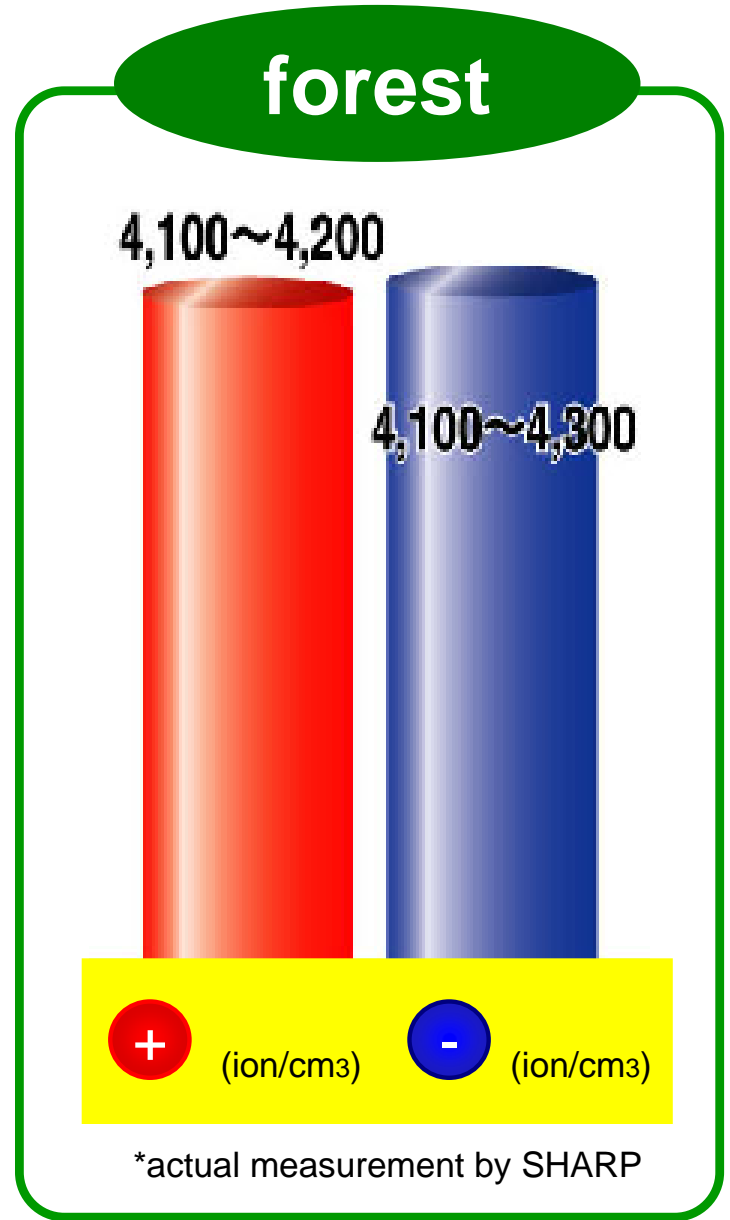
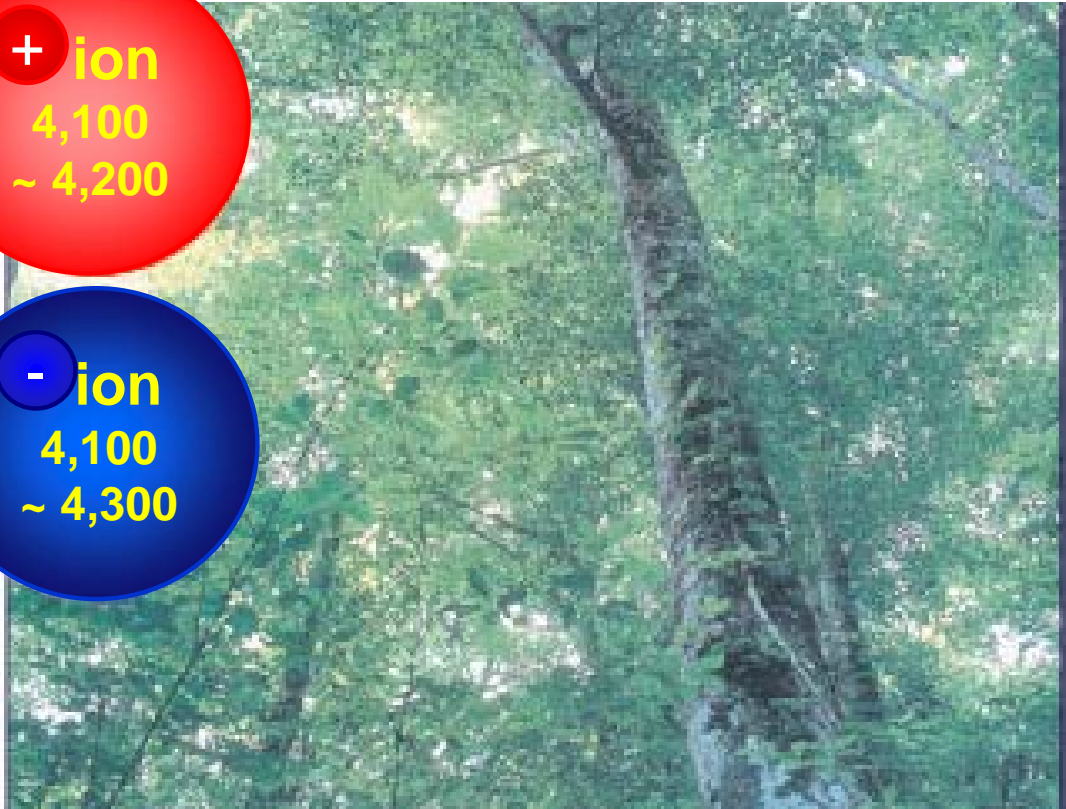
Removes Viruses | Prevents Morning Allergy & Asthma | Destroys Bacteria | Stops Mould & Fungal Growth | Neutralizes Toxic Pollutants | Eliminates Bad Smell



Nature's Pure Air

+ ion
4,100
~ 4,200

- ion
4,100
~ 4,300



Nature Gives us fresh & pure Air – at concentration levels best suited for Humans

Air at Forest or Park is Good !

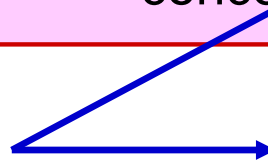
? Why ?

Balanced, with little higher concentration of -ive ions :

- ◆ Higher *-ive* Ion *reduces stress*
- ◆ Higher *+ive* Ion *causes respiratory problems*

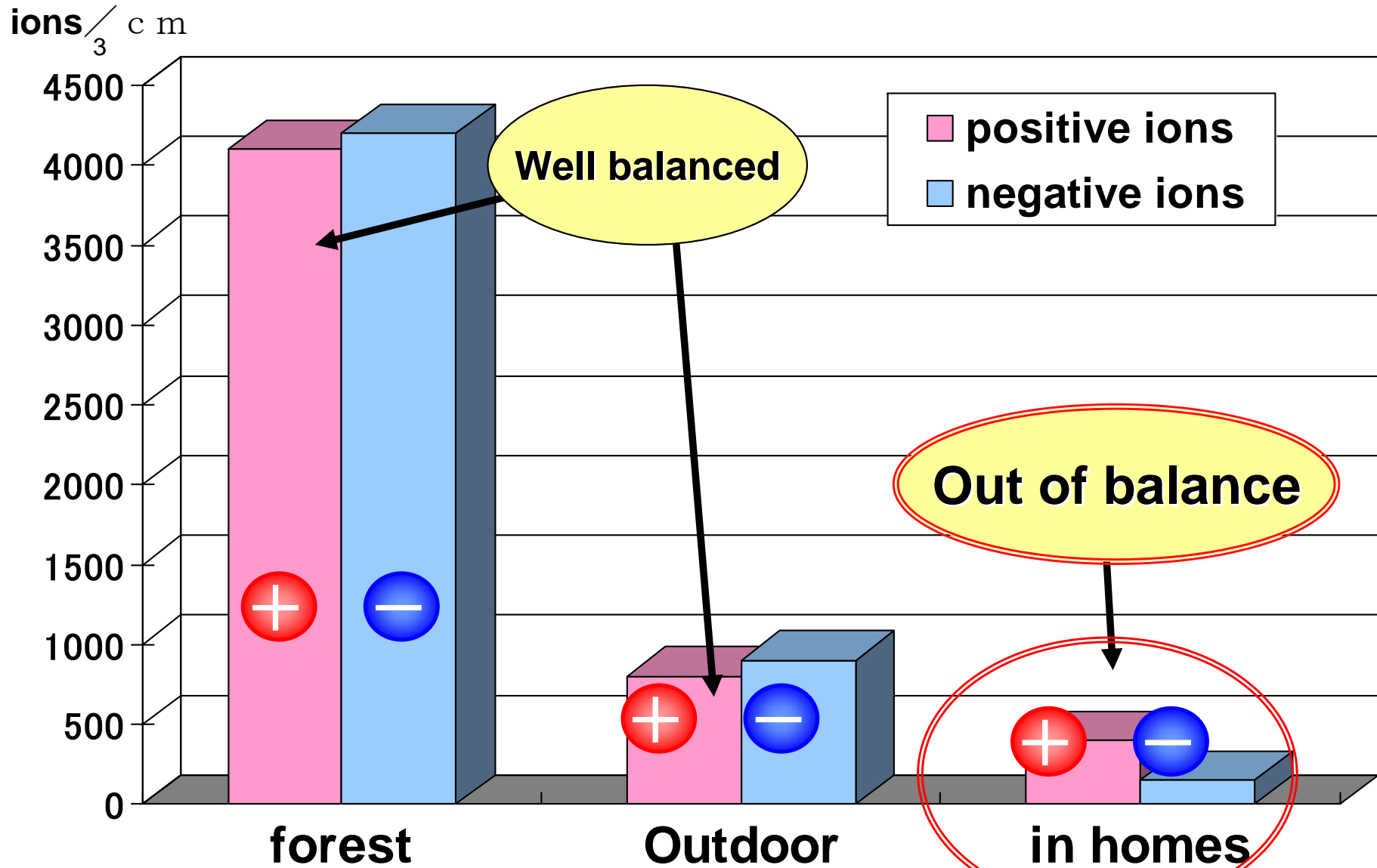
Higher Ion Concentration :

- ◆ *Forest/park* Ion concentration is $>4100\text{ions}/\text{cm}^3$
- ◆ *City outdoors* (Road / Plaza / Square) Ion concentration reduces to $< 900\text{ ions} / \text{cm}^3$



PI see Graph next page

Living Condition in our Life



Sharp Plasmacluster – What it Does



1 Produce same +ive & -ive ions (of +H & -O₂) as those found in a **Forest**
↳ SAFE

2 Produce ions exactly in similar **concentration** (ion /cm³) as found in a **Forest**
↳ MIMICS NATURE

3 Produce ions exactly in similar **balance** (-ive > +ive) as found in a **Forest**
↳ **NATUROPATHY** : AIR AS FRESH & PURE AS IN NATURE

**Sharp PCI Creates *Fresh & Pure Air*
as in nature!**

Proven Effectiveness

Effectiveness of PCI has been Proven in Labs Around the World

- ❖ *99.8% of allergens in dust mite droppings are removed*¹
- ❖ *99.9% pollen allergens are removed*²
- ❖ *99.9% of viruses are removed*²
- ❖ *99% bacteria is removed*³
- ❖ *99.9% Mold Growth*

1. *Tested by Japan Synthetic Textile Inspection Institute Foundation*

2. *Tested by Hiroshima University Graduate School of Advance Matter*

3. *Tested by Chinese Centre for Disease Control and Prevention (CCDC) Lab oratory for Infectious Diseases and Control*

A Milestone in Inventions by Sharp



Winner of the Invention Prize at the 2008 National Invention Awards Ceremony

held by the Japan Institute of Invention and Innovation



Patented by Sharp (Patent
No. 3680121)

Only Sharp PCI can replenish Air



Sharp was recently presented with the Takagi Award in Japan.

This award is given for breakthroughs in science and technology. *This is the first time the Takagi Award has been awarded to a consumer products company.*

Not just an Air Purifier

The British Allergy Association

The Sharp FPN40CX system has been awarded the British Allergy Foundation Seal of Approval.

(*FPN40CX is a modified version of FU-40SE*)



BAF Seal of Approval is acknowledged as the most recognized mark for allergy sufferers.

Proven Around the World



Proven at 13 Institutions around the world.

The institutions below have gathered validation data for Plasmacluster ion generating devices manufactured between October 2000 and December 2008, and records of product use

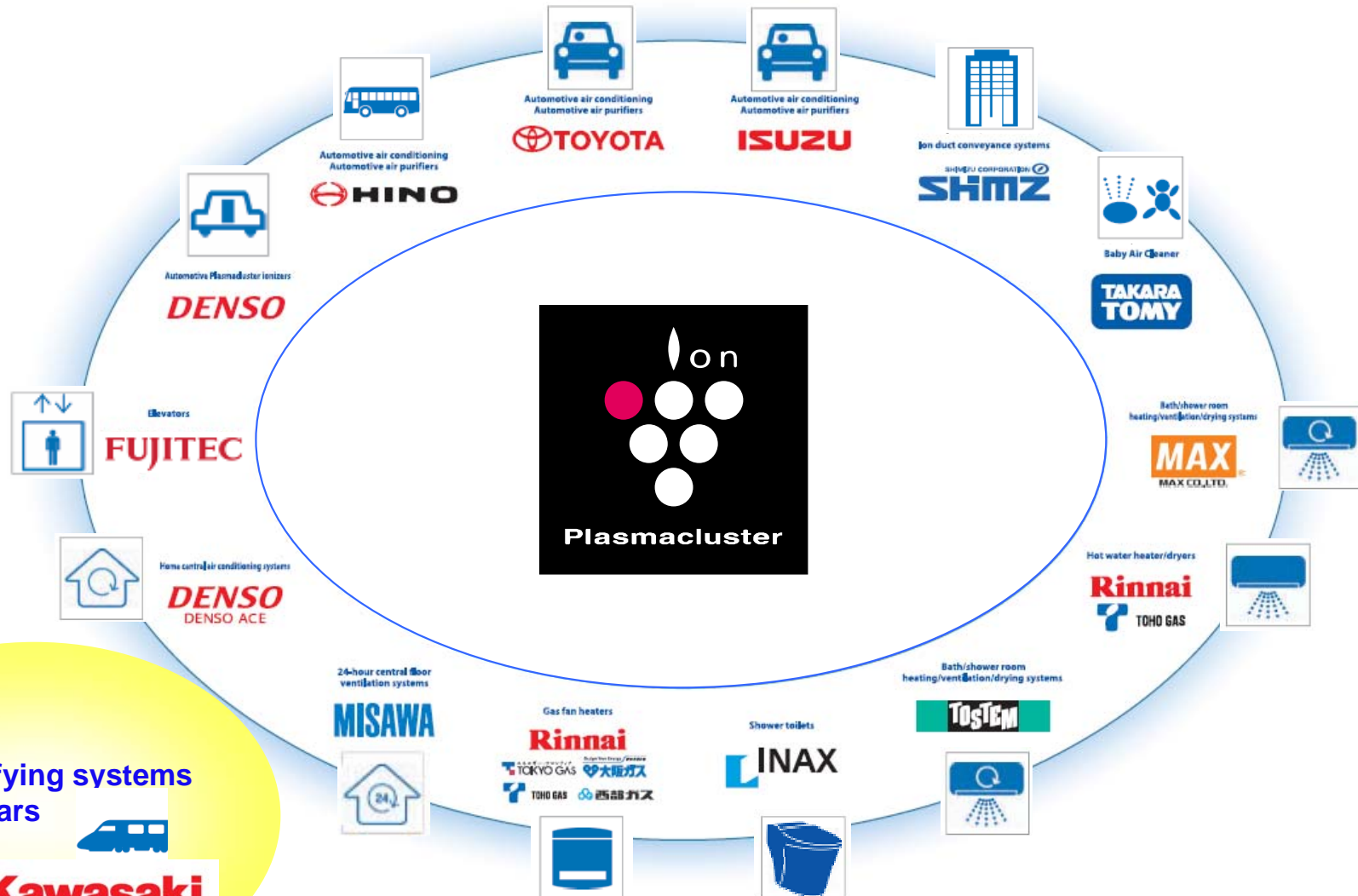
Test substance	Tested by:	Test substance	Tested by:
Airborne viruses	Kitasato Research Center of Environmental Sciences (Japan)	Airborne microbes	Ishikawa Health Service Association (Japan)
	Seoul University (Korea)		Shanghai Municipal Center for Disease Control and Prevention
	Shanghai Municipal Center for Disease Control and Prevention		Kitasato Research Center of Environmental Sciences (Japan)
	Kitasato Institute Medical Center Hospital, Kitasato University (Japan)		Kitasato Institute Medical Center Hospital, Kitasato University (Japan)
	Retroscreen Virology, Ltd. (UK)		Professor Gerhard Artmann, Aachen University of Applied Sciences (Germany)
Airborne allergens	Hiroshima University Graduate School of Advanced Sciences of Matter (Japan)		Harvard School of Public Health (USA)
	Asthma Society of Canada	Adhering odor	Japan Spinners Inspecting Foundation
Airborne mold	Ishikawa Health Service Association (Japan)	Adhering mold	The University of Lünebeck (Germany)
	Professor Gerhard Artmann, Aachen University of Applied Sciences (Germany)		Japan Food Research Laboratories

* Validation test results for other test substances carried out by the same test institution at the same time have not been shown.

Worldwide Adoption of PCI ~ 25 Mn Units sold already



Companies in other Industries adopting Plasmacluster Ion Technology



NEW!

Air purifying systems for railcars



Kawasaki

Fresh Air & Pure Water Twin Pillars of life



Air & Water – Twin Pillars of Life

	<i>Waterborne Contaminants</i>	<i>Airborne Contaminants</i>
Common Diseases	<p><i>Cholera</i> <i>Typhoid</i></p> <p><i>Hepatitis</i> <i>Dysentery</i></p> <p><i>Tapeworm and other Parasitic Infections</i></p>	<p><i>Chickenpox</i> <i>Asthma Attack</i></p> <p><i>Smallpox</i> <i>Tuberculosis</i></p> <p><i>Influenza (H1N1 / Bird Flu / Swine Flu, Allergy, Seasonal Flus)</i></p>
Effects	<p><i>Most cause symptomatic problems, easily curable</i></p>	<p><i>Once contracted, some of the diseases are life-threatening</i></p>

Fresh Air : Tall Idea, Small Cost

Waterborne Contaminants

Prevention



Implementation Cost / Yr

Rs 50 x 365 = **Rs 18,250**



~ Rs.1,600 / yr
(~ Rs 20,000 for 5 yrs)
Incl AMC, Filter change charges



We are so desperate
to drink **safe** Water

Airborne Contaminants

Prevention



Implementation Cost / Yr

Rs.15000 for 5 yrs
i.e. Rs.3000 / yr

On the other hand
Fresh Air is Life itself



Sharp PCI & Air Purifiers – Not the same thing!!!!



IG-A10

Difference between PCI & Air Purifiers

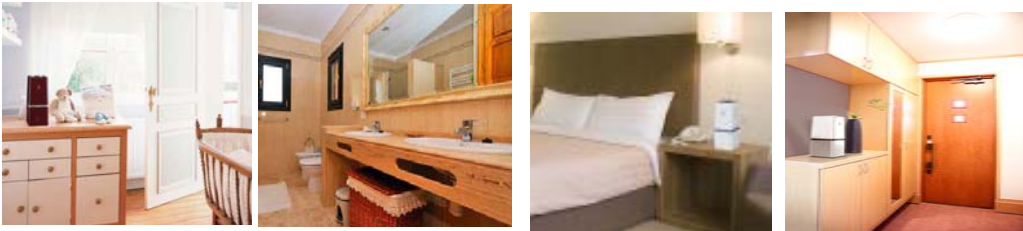
Plasmacluster Ion Generator



- No Air Filter
- Ion density : 25,000 ions/cm³
- To enable stable emission of high-density Plasmacluster ions, Plasmacluster ion generating unit will need to be replaced periodically. (roughly once in every 2 years)

It emits high-density Plasmacluster ions into the air, and powerfully inactivate airborne substances.

Thanks to its compact body, there's no limit of placement (Good to place in children's rooms, bathrooms, bedrooms, entrances and so on.)



Conventional Air purifier



- Needs to operate with the filters.

Basically, it has filters to remove house dust, pollen and odor.

**More powerful
& More Effective**

Plasmacluster Ion Generator

IG-A10



Recommended Area	Approx. 10 m ²
Power Consumption	Low mode : 6.5 W High mode : 14.0 W
Airflow Volume	Low mode : 72 m ³ /hour High mode : 102 m ³ /hour
Noise	Low mode : 34 dB High mode : 44 dB
Dimensions	W140 × D160 × H345 mm
Weight	Approx. 2.5 kg

The Secret of High-Density

Point

No other technology but Plasmacluster ion can work at high-density.



The Secret of high ion densities

People-friendly and long-lasting.

The same type of ions as those in the natural environment

Plasmacluster ions are positive and negative ions that adhere to the surfaces of suspended airborne microbes and form highly oxidizing hydroxide radicals that physically break down and remove the proteins on the surfaces of suspended microbes. Since they are the same as naturally occurring ions while airborne, they can exist in higher densities in homes.

GLP*-compliant test facilities have gathered highly reliable safety data on Sharp's Plasmacluster technology.

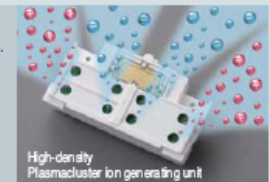
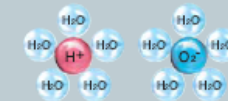
- Skin irritation/corrosion test
- Eye irritation/corrosion test
- Inhalation toxicity test (lung tissue genetic impact assessment)

Tested by: Mitsubishi Chemical Safety Institute

Water molecules surround ions ensuring long ion life

The Plasmacluster ion generating device that drives it is mounted as a replaceable unit. It uses high voltage and a larger number of electrical discharges to generate higher densities of positive and negative ions. Since the positive and negative ions generated are surrounded by water molecules, they can survive for extended periods.

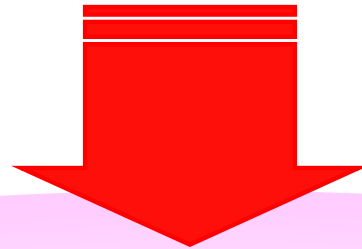
Ions are surrounded by water molecules, enabling long survival.



* GLP (Good Laboratory Practice) is a system of management controls for test facilities and test procedures designed to ensure the reliability of chemical safety assessment tests.

Although the ion emission technology
Itself is not that difficult,

positive and negative ions easily bond together
or disappear before they reach far across the room.

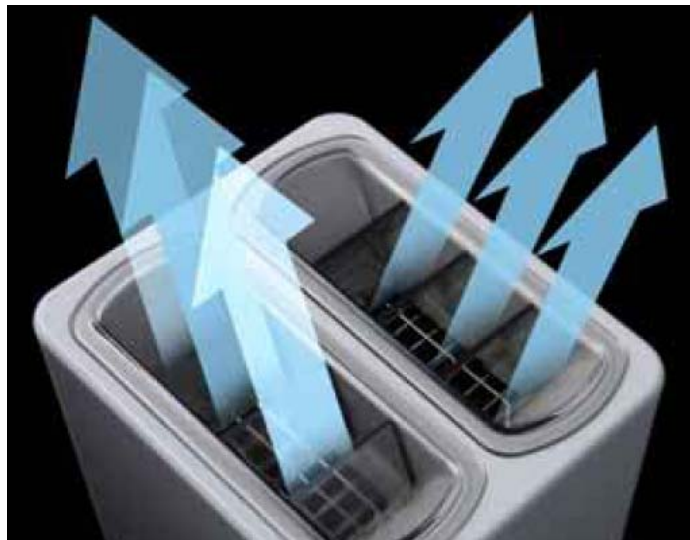


In addition to the device technology,
airflow technologies are crucial!!

One-of-a-Kind Technology

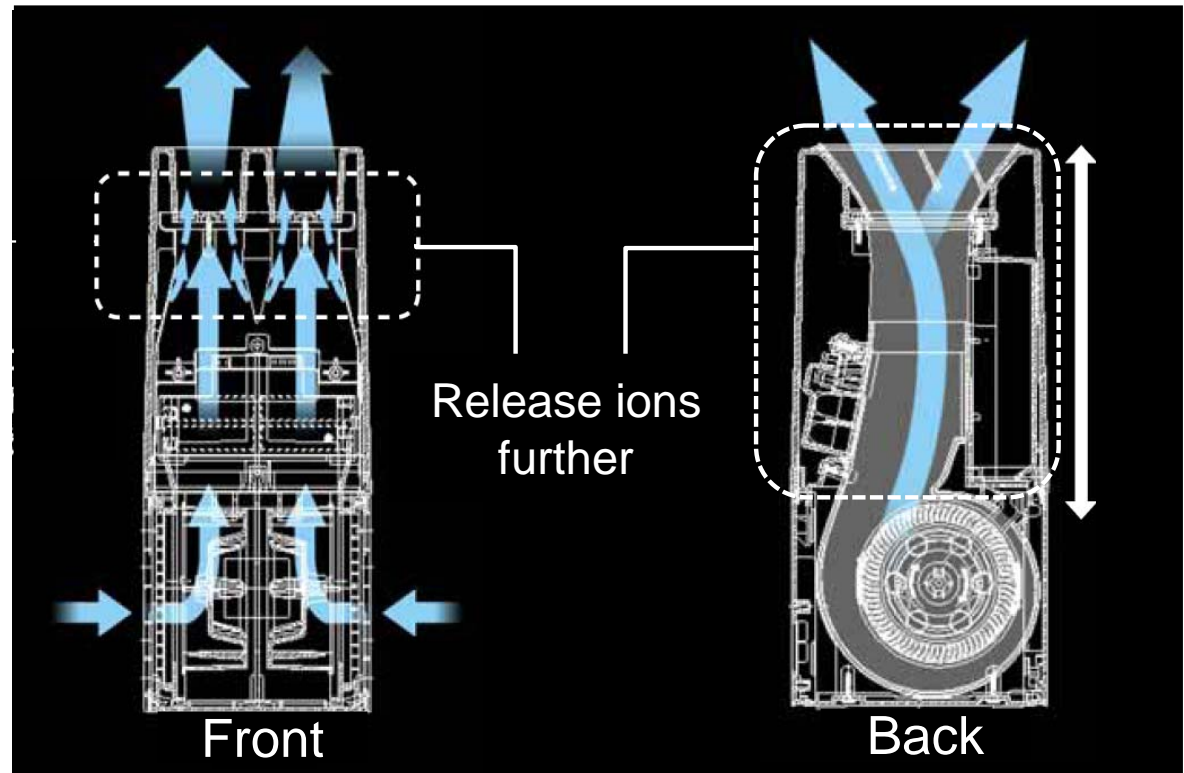
IG-A10

「Fluid Control Technology」
Evenly diffuses Plasmacluster Ions in the room



Prevent positive and negative ions from recombining by the separated two air outlets

**Two-way separated
air outlets**



**Constricted
air outlet design**

Long nozzle

Plasmacluster HD Features



Higher capability of disinfecting airborne mold and viruses.
Irresistible Plasmacluster HD Power

1 Increased **virus** elimination performance

Drastically inactivates suspended viruses.

2 Preventing the growth of adhering **mold**

Inhibits activity of the growth of adhering mold to fixtures such as rubber sash frames.



Plasmacluster HD Features



Higher capability of disinfecting airborne mold and viruses.
Irresistible Plasmacluster HD Power

3 **Deodorize** at double the speed

Chemically reacts with hydrogen and destroy odors elements. Remove odor on business suits by releasing Plasmacluster Ions.

4 **Eliminate 99.9% of airborne allergen**

Destroys the protein of allergen contaminants.



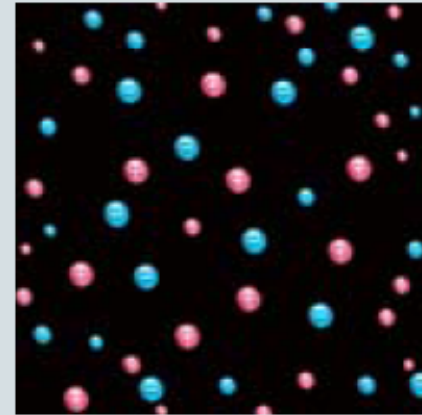
People-friendly

Point 1

People-friendly

1

Release
Plasmacluster
ions.



Plasmacluster ions are the same positive and negative ions found in nature. The ions are surrounded by water molecules, and are released into the air.

Powerful

Point 2

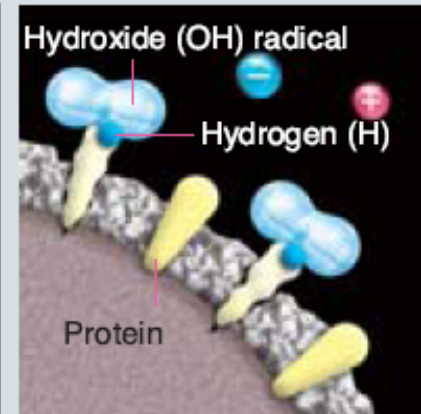
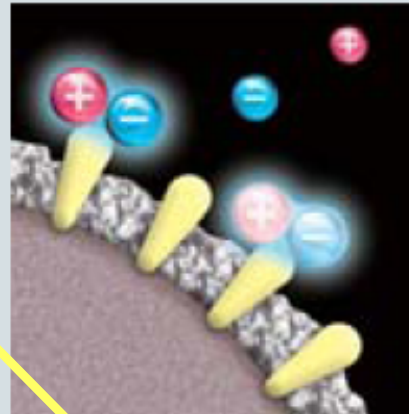
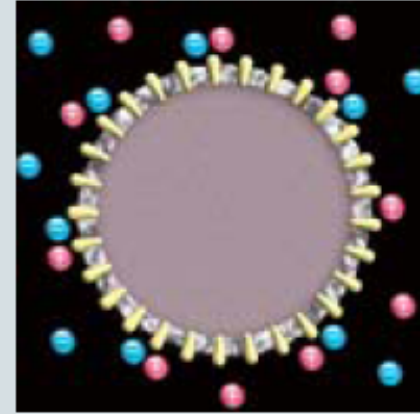
Powerful

Point 1

People-friendly

2

Attack
suspended
airborne
microbes.



The ions form hydroxide radicals that are highly oxidizing only when they adhere to the surfaces of mold and viruses. They instantly remove the hydrogen from the surface proteins, breaking them down.

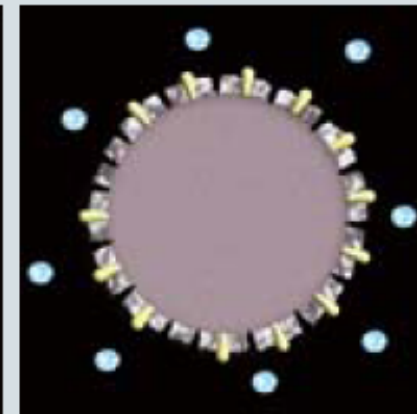
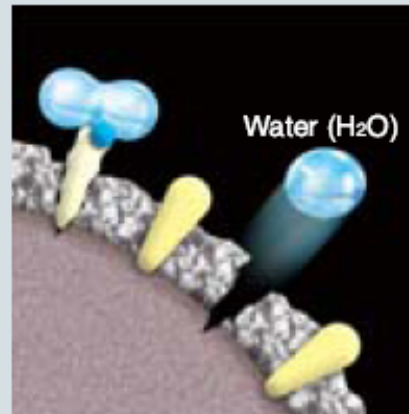
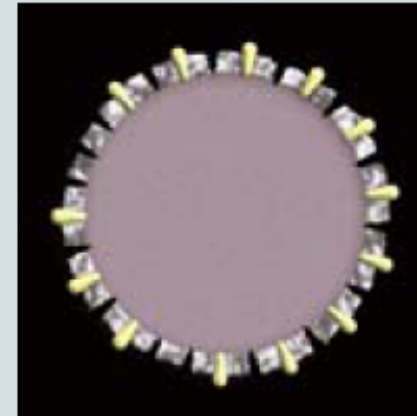
AND it's still....People-Friendly

Point 1

People-friendly

3

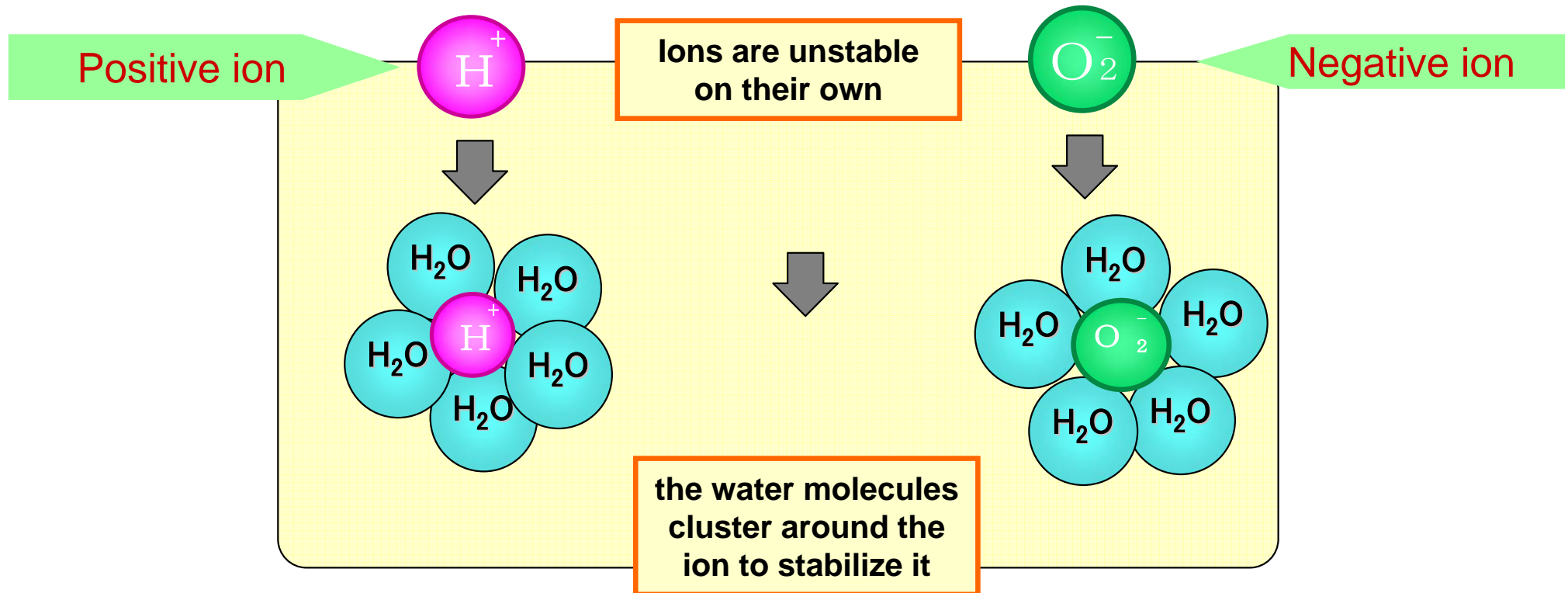
Return to the
air as water.



The hydroxide (OH) radicals combine with hydrogen (H) to form water (H₂O) which returns to the air.

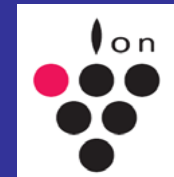
How Does It Work ?

1 Plasma Discharge Split Water Vapour into H (+ive) & O₂ (-ive) ions



Since the positive and negative ions are surrounded by water molecules, they can survive for extended periods.

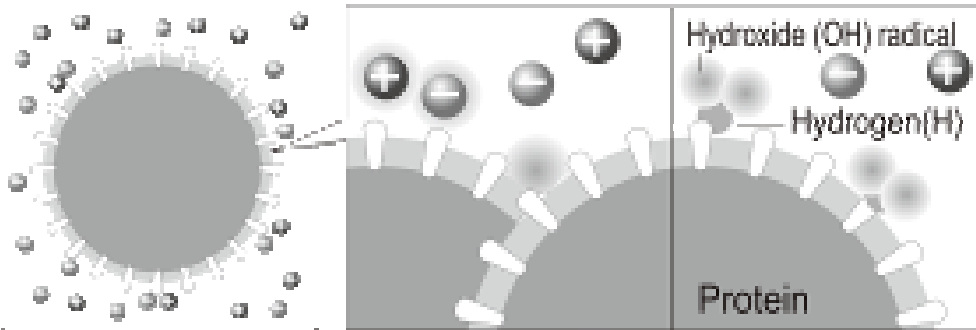
Hence the name Plasmacluster



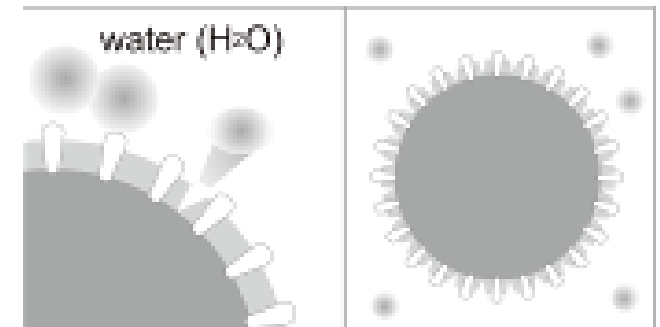
How Does It Work ?

- 2 The ions form Hydroxyl Radicals (OH) which can deactivate harmful Airborne Particles [Virus, Allergen, etc]

Attack Airborne microbes



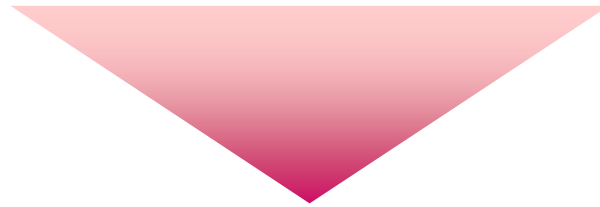
Return to the air as water



- ◆ The ions form Hydroxyl Radicals (OH) that are highly oxidizing only when they adhere to the surfaces of mold / virus / bacteria / pollens.
- ◆ They instantly remove the hydrogen from the surface proteins, breaking them down. ***This neutralizes the harmful substances.***
- ◆ The hydroxyl (OH) radicals combine with hydrogen (H) to form water (H₂O), which returns to the air.

How Does It Work ?

Hydroxyl is considered one of the most important atmospheric oxidants and has been nicknamed "Nature's Detergent"



Removes Viruses	Destroys Bacteria	Neutralizes Toxic Pollutants
Prevents Morning Allergy & Asthma	Stops Mould & Fungi Growth	Eliminates Bad Smell

Why do we need Nature's Detergent ?

We Say : Indians are so strong... We are used to Polluted Air ...

Allergies,
asthma



H1N1

Bad
Smell



Air
pollution



But, what does Statistics say ?

- **1/3** of total World's Asthma Patients are from India
- India has seen **1,646 deaths** from H1N1 till Apr'10
- In India **2 people die** from Tuberculosis every **3 min.**

- **1 hr of passive smoking is Equal to smoking 10 cigarettes.** India saw **9lac deaths** from Smoking related diseases in 2009
- Continuous exposure to bad smell is **psychologically dangerous** (specially infants)

- WHO estimates **2.3% reduction of life-years** with every 10% increase in Particulate Air Pollutants

Sharp PlasmaCluster is effective against.....



Bacteria & Viruses - Influenza, MRSA, Poliovirus, Coxsackie, Staph, E. Coli, Colon Basillus, Cladosporium, Aspergillus
Cigarette Smoke, Mold Spores & Germs, Pollen, Dust, Pet Odors, Exhaust Fumes, Formaldehyde



**Cigarette
Smoke
Odor**



Toilet Odor



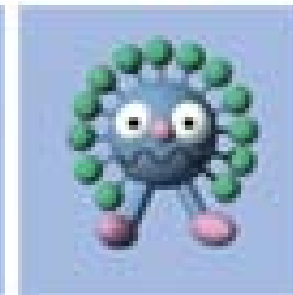
**Garbage
Odor**



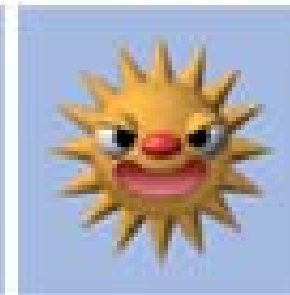
**Pet Odor
and Hairs**



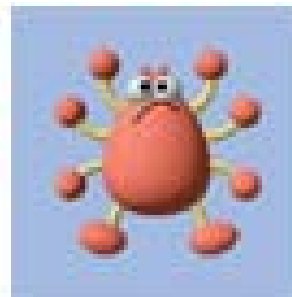
NO₂



Molds



Viruses



Dead Ticks



Pollen



Dust



Sharp PCI – Who can Use? Why?

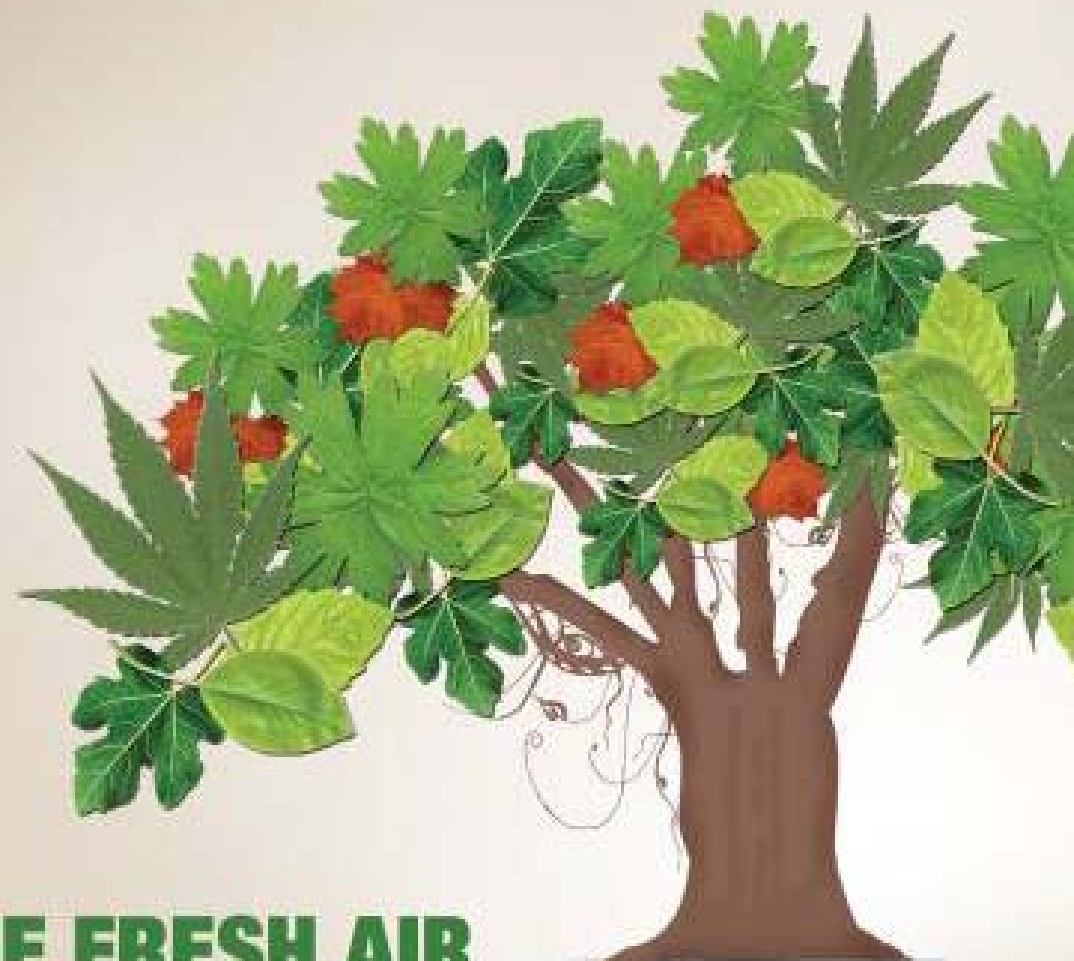


IG-A10



FU-W28E

Let's



PLANT SOME FRESH AIR **INTRODUCING SHARP PLASMACLUSTER ION GENERATOR**

Now let clean fresh air grow around you with SHARP's one-of-a-kind technology. It generates ions similar to those found in Nature, which destroy air borne viruses and other air impurities, thus, purifying the air around you. Just like plants do. Now breathe clean air, everywhere.

Removes Viruses | Prevents Morning Allergy & Asthma | Destroys Bacteria | Stops Mould & Fungal Growth | Neutralizes Toxic Pollutants | Eliminates Bad Smell



Who Should Use A Sharp PCI ?

babies

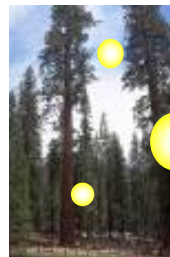


**a family member
who smokes**



allergies

pets



elderly people



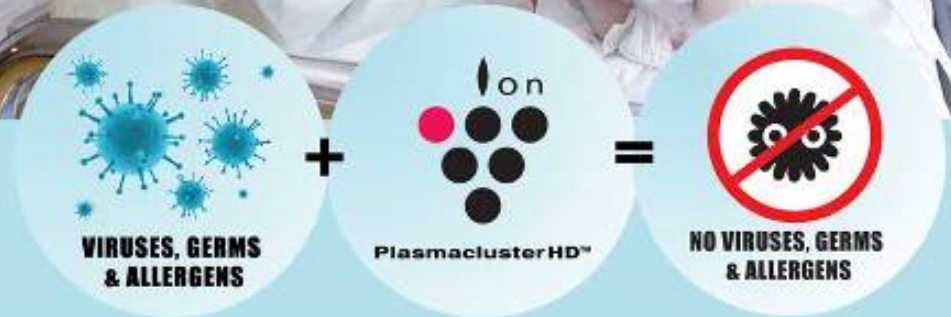


*Most susceptible to deadly Virus, Germs, Bacteria & Allergens are **Newborn Babies, Recuperating Patients** and **Old People** – all those with **Low Immunity***

*Plasmacluster Ions can keep the air around them **healthy & safe.***



SHARP
one-of-a-kind products



Protect infants from germs, bacteria and allergens.

Introducing one-of-a-kind
Plasmacluster Ion Generator from Sharp

Sharp Plasmacluster Ion Generator has been clinically tested in various medical labs across the world, and its effectiveness in destroying harmful bacteria, microbes, viruses and allergens has been proven beyond doubt. In fact, it also reduces odour and inhibits mould growth. It's the perfect Air Support system for recovering patients with subdued immunity and has also been designed to match the décor of your hospital rooms perfectly.



Please contact Sharp Business Systems (India) Limited
at 1800-4254-32 | Info@sharp-pa.com or visit our website www.sbsil.com



SHARP
one-of-a-kind products



Say good night to morning allergy.

Introducing one-of-a-kind
Plasmacluster Ion Generator from Sharp

If you're suffering from early morning bouts of sneezing caused by dust, mould, smoke or any other airborne allergens, then Sharp Plasmacluster Ion Generator is made for you. It produces ions similar to those found in nature that destroy all these irritants. A special HEPA filter unit is wonderfully effective in countering dust and pollen. So wake up and breathe fresh.

Please contact Sharp Business Systems (India) Limited
at 1800-4254-321. Info@sharp-ia.com or visit our website www.sbsil.com



*Even in apparently clean homes, people often experience allergy symptoms shortly after waking up. **This is called a morning attack.***

*During the course of the night, airborne particles containing **Allergens** settle on surfaces, including the bed and the floor. They lay undisturbed until you wake up, throw the covers off and walk across the floor.*

*This instantly throws a heavy concentration of dust and other particles into the air causing many people to **start sniffing and sneezing.***

PCI works by deactivating these Allergens



SHARP
one-of-a-kind products



Forget your inhaler, inhale fresh air.

Introducing one-of-a-kind
Plasmacluster Ion Generator from Sharp

Sharp Plasmacluster Ion Generator produces ions similar to those found in nature. They destroy dust mites, allergens and other irritants causing asthma. So you breathe air as fresh as the morning mist.



Please contact Sharp Business Systems (India) Limited
at 1800-4254-321 Info@sharp-oa.com or visit our website www.sbsil.com

Most Common Causes (Triggers) of Asthma Attack:

1. **Viral infection**
2. **Animals with fur or hair**
3. **House-dust mites (in mattresses, pillows, upholstered furniture, carpets)**
4. **Mold**
5. **Smoke (tobacco, wood)**
6. **Pollen**
7. **Airborne chemicals or dusts**
8. **Change in weather**
9. **Strong Emotional Expression (laugh / cry)**

(source : <http://en.wikipedia.org/wiki/Asthma#Environmental>)

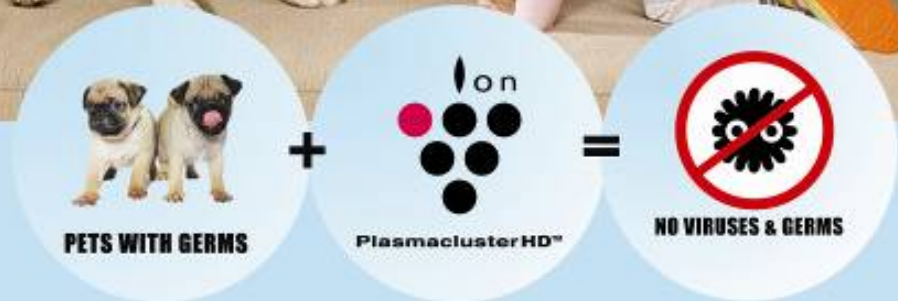
**A PCI Device is the most effective
protection against all these *Triggers*
of Asthma Attack**



SHARP
one-of-a-kind products

*A child loves to play with pets.
Unfortunately, pets are carriers of an
assortment of **Germs & Bacteria** as
well as source of **Smell**.*

***PCI** breaks down mites, spores and
adhering odors and creates a safe and
secure household.*



**Play with your pet,
not with its germs.**

Introducing one-of-a-kind
Plasmacluster Ion Generator from Sharp

Sharp Plasmacluster Ion Generator produces ions similar to those found in nature. They destroy harmful bacteria, microbes and viruses in the air, making it fresh and invigorating. So even if you have a pet at home, don't worry about spreading air-borne germs. Breathe fresh!



Please contact Sharp Business Systems (India) Limited
at 1800-4254-321 | Info@sharp-ia.com or visit our website www.sbsil.com



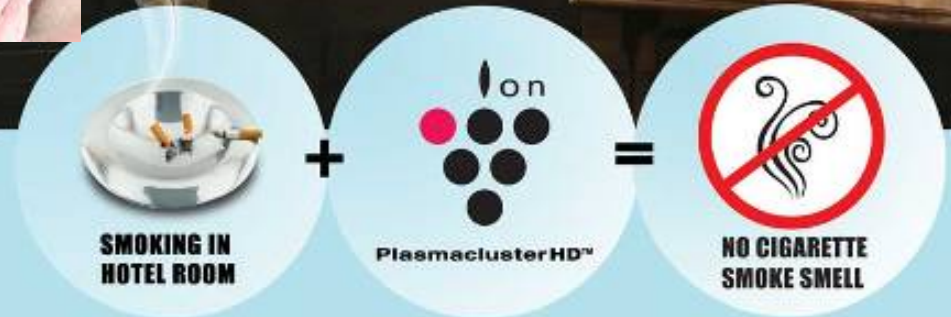
*In most Hotels in India, same room serves as a Smoking and non-smoking room. Even after thorough cleaning & use of Room Fresheners, **cigarette smell** refuses to go. Curtains / Cushions retain specially retain Cigarette Smell.*

*PCI can completely **remove** Cigarette Smell from a room within 2 hours.*

Indeed a small investment by the Hotel Management to vastly improve customer satisfaction quotient.



SHARP
one-of-a-kind products



Add fresh air to your room services.

Introducing one-of-a-kind **Plasmacluster Ion Generator from Sharp**

Sharp Plasmacluster Ion Generator reacts with Hydrogen to produce ions similar to those in nature. They effectively destroy odour and inhibit the growth of moulds, providing fresh, clean and invigorating air. So now serve fresh air to your guests in every room along with mineral water!

Please contact Sharp Business Systems (India) Limited at 1800-4254-32 | Info@sharp-pa.com or visit our website www.sbsil.com





SHARP
one-of-a-kind products



Why mask paint smell when you can remove it?

Introducing one-of-a-kind
Plasmacluster Ion Generator from Sharp

Sharp Plasmacluster Ion Generator produces ions similar to those found in nature. They attack paint molecules in the air that irritate eyes and cause throat problems. So you can breathe fresh air in your office even after newly painting its walls.

Please contact Sharp Business Systems (India) Limited
at 1800-4254-321 | Info@sharp-ia.com or visit our website www.sbsil.com



Common Effects of Paint Fumes:

- ❖ Eye, nose, and throat irritation
- ❖ Headache
- ❖ Loss of coordination, nausea

Other Possible Effects :

- ❖ Allergic skin reaction
- ❖ Vomiting
- ❖ Nosebleed
- ❖ Fatigue
- ❖ Dizziness

Effects can vary widely with Age, Health, Susceptibility & General Lifestyle

A PCI Device running from a night before starting the paint job (to get good concentration of ions from start) will reduce the problem dramatically.

PCI, the Smell Buster

Hydroxyl, the Nature's Detergent – the Perfect Deodoriser



Helmets



Clothes

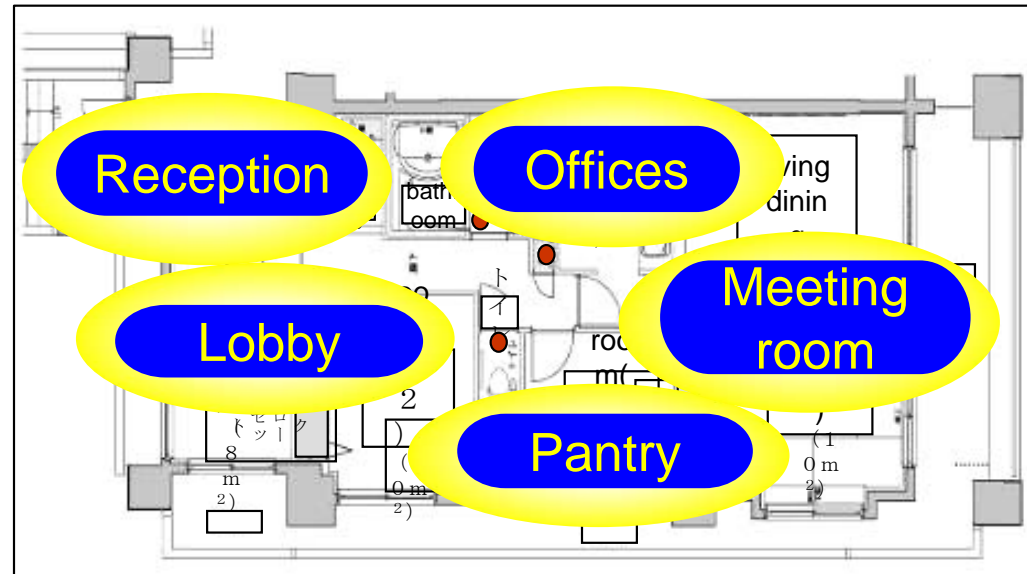


Shoes

*Many items of our everyday wear can't be washed daily. **Why ?***

◆ *Technically impossible (helmet / shoe)* ◆ *High Cost (Suit, etc)*

Example of use in offices....



IG-A10



~10m²

Example of use of PCI in Public places.....

IG-A10



~10m²



In eating places



In meeting rooms



In theaters

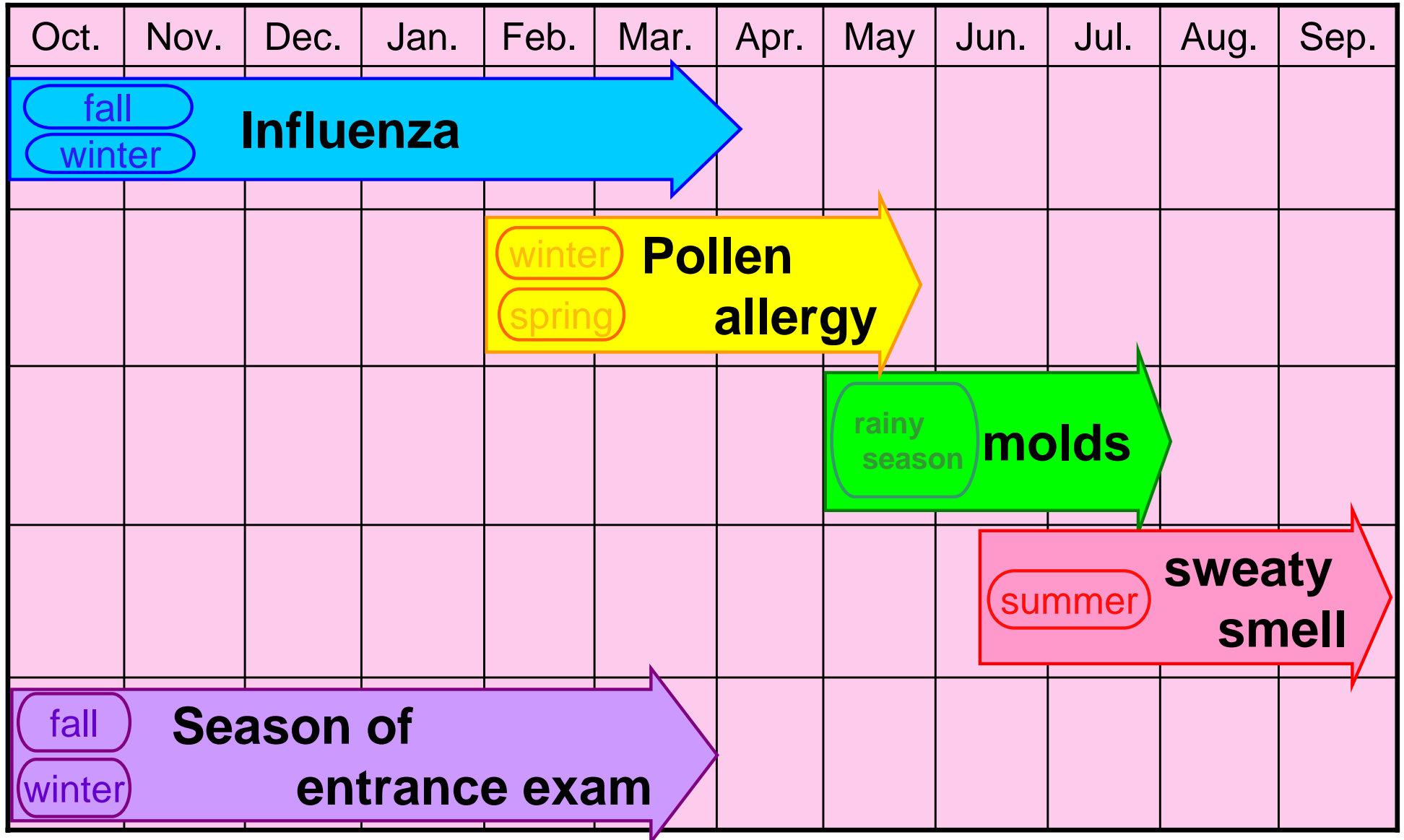


In waiting rooms



In airports

The All season happiness from virus.....



A photograph of a young child with curly hair, smiling and looking towards the camera. The child is shirtless and wearing a white diaper. To the left of the child is a large, bright daisy flower with white petals and a yellow center. The background is a soft, out-of-focus white and light green.

**Millions of smiles
protected by
millions of ions**

SHARP