

SRICHAKRA'S

PUREAIR

Information Booklet



Srichakra Scientifics

Energy saving concepts

SRICHAKRA SCIENTIFICS

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While we enjoy the cosy comforts of our indoor, it is our general feeling that we are completely kept off from the dangerous air pollution created outside due to vehicular exhaust. But.. Do you know that indoor air is as harmful as polluted outdoor air...! Yes, it is! Our airtight structures blocks the natural air-cleaning agents provided by nature and trap the pollution created inside by household chemicals, smoking, animal dander, skin flakes, dust and other contaminants. A more serious aspect of indoor air pollution is that many diseases are caused by airborne bacteria and viruses expelled into the air from sneezing, coughing, and ordinary breathing. Our team at SriChakra Scientifics is proud to have developed low-cost, high efficiency air purifiers to tackle this innocently ignored but dangerous problem. Our new PureAir assures a cost effective solution for your daily medical bills! PureAir's Super-Oxidizing sanitizing process called ionization energises stale indoor air and refreshes it with oxygen.

Principle of PureAir

"PureAir" air purifier generates powerful negative ions via corona discharge. When the unit is turned on, high-energy electrons are emitted, which in turn collide against air particulates to generate anions. PureAir, emits 290 billion electrons per second to purify contaminated air, and maintains anion density at 1000-2000 ea per 1cc of air, which is good for humans.

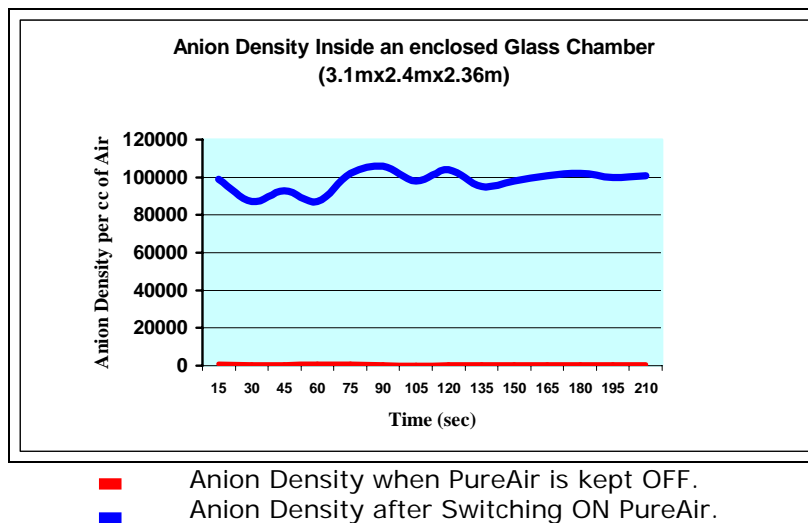
Firstly it is not an exhaust fan, which simply throws inside pollutants to outside atmosphere. But "PureAir" along with high density of anions generates permissible quantities of ozone to neutralize harmful positive ions, electromagnetic waves bacteria, viruses, dust mites, various allergy causing germs, odour, and remove pollution created by electromagnetic waves, dust, other radiations etc. High density of positive ions in the air, promotes secretion of hormones such as **serotonin** and **free histamine** in human body, which quite adversely affects our moods and other physiological functions. Exposure to positive ions may cause **asthma, bronchitis, nervousness, tension, irregular menstrual period, languor, mental depression and dermatitis.**

The negative ions, by attaching themselves to airborne toxins and dust particles, drop them to a surface or attracted to the **Electro precipitator plate (EPP)**. Ions basically take out the larger pollutants like dust particles in the air. Ozone will take the smell out of smoke and help kill harmful bacteria and viruses. Negative ions take the smoke out & clear the atmosphere to make the air fresh. Positive ions enable bacteria; dust, pollen, mold and contaminated particulates freely float in the air & make it foul. However, anions neutralize and remove them, or charge them negatively so that they are adsorbed and collected by a powerfully charged "EPP" installed in the air cleaner.

Functions of PureAir

Some major function/features of pureAir are listed and explained below.

- Deodorization**
 Anion chemically oxidizes decomposes and neutralizes the source of odour to remove offensive odour and keep indoor atmosphere pleasant.
- Sterilization of air**
 The anions generated by pureAir act as anti-bacterial and anti-viral elements. The negative ions thus released into the air, kill most of the bacteria and viruses (upto 0.13 μ) and helps keep the air free from bacteria and viruses, which are the main causes of fever, cold, asthma, & likewise ailments.
- Neutralization of smoke (Cigarette smoke as well as others)**
 Cigarette smoke consists of many harmful chemicals. 30 to 60 amongst which are the cancer causing ones. The smoke contains 10% nicotine and the major gaseous pollutant is CO₂. PureAir neutralises the nicotine particles and completely disintegrates CO₂ into carbon and oxygen. Passive smoking could cause Lung Cancer, Heart Diseases etc. **PureAir** curtails the bad effects of passive smoking & helps you overcome these problems and keeps you healthy...
- Fresh air**
 Fresh air is nothing but air consisting mostly of negative ions!! The air we feel at the beaches, near waterfalls, on the hills, is all negatively charged air!! Therefore apart from the above functions, pureAir also acts as and air freshener, by creating a negatively charged ambience around us.
- Anti bacterial functionality**
 PureAir was tested in an atmosphere of airborne bacteria & found that the cultured bacteria was killed or neutralized with a minutes. **PureAir** could even inhibit the growth of **fungi** within a very short span of time.



Ambience of the ion density found at different places

<u>AMBIENCE</u>	<u>CONCENTRATION</u>
Waterfall and Forest	50,000 ions/cc
High mountain and seashore	5,000 ions/cc
Outskirts and fields	700-1,500 ions/cc
Metropolitan park	400-600 ions/cc

Boulevard	100-200 ions/cc
Apartment in metropolitan area	40-50 ions/cc
Tight air-conditioned room	0-25 ions/cc

Installation & Maintenance

The Negative Ions always travel downwards for which we suggest the installation be done at a height of about 6 feet from the ground. During this process the negative ions react with the positive ions, other contaminants & thus neutralize them. The factors that influence the efficiency of the device are as follows.

1. Installed height (we recommend it to be around 6 ft from the floor)
2. Volume of the confined space. (The optimal coverage space is about 2000 Cu.ft) & the density of the pollution.
3. Rate of inflow of the pollution or smoke, if greater than the ion emission rate of the device, the reaction time increases thereby increasing the neutralizing time.
4. Deposits of the contaminants on the stainless steel dust collector plate obstruct the flow of anions. Cleaning of the plate is required when it's seen that the plate is covered with the layer of deposits or dust, with soap water or any solvents like acetone or petrol.
5. In the long run, Carbon & the dust particles get stuck to the stainless steel needles (It may be needed to be cleaned but not very frequently)

Application areas

Application areas are wide & many.

PureAir is useful in all places where there is scope to improve the indoor air quality i.e. where there is bacteria, odour, stink, and air borne particles, dust mites, smoke & other hydrocarbons. Some of the areas of application along with the volume covered by one PureAir are..

- **Indoor cabins**
- **Offices**
- **AC rooms**
- **Guest houses**
- **Temples**
- **Household application (20ftX 15ftX 10ft)**
- **Laboratories**
- **Hospitals, Etc.**
- **Bar & Restaurants Hotel Rooms**
- **Smoking Zones**
- **Chemical Research Laboratories**
- **Bulk Drug Industry**
- **Food Processing Zones**
- **Hatcheries**
- **Tobacco Industry**
- **Dairy Industry**
- **Petrol bunk cabins**

Technical Specifications

- **MODEL** **SCSPA0204**

- **CAPACITY** 59m³
- **ION DENSITY** 1000 ea/CC OF AIR
- **ION EMISSION** 190 MN IONS/SEC
- **POWER CONSUMPTION** 4 WATTS (max)
- **WEIGHT** 1.35 Kg
- **POWER SUPPLY** 220 VOLTS/110 VOLTS (optional) ,
50/60Hz