

MEDAIR

ElectroMed

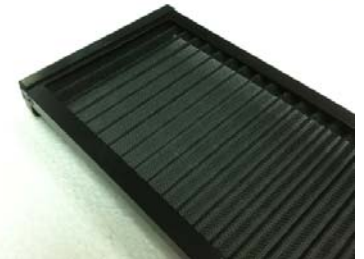
electrostatic precipitator
air purification theory

0.01 micrometer and permanent use

Permanent use of MEDAIR 601 / 504 ElectroMed



Free of consumable parts designed in 601 / 504 ElectroMed including washable Nano-silver antimicrobial pre-filter and metal PCO filter, LED UV Lamp and Plasma Ion Generator can last up from 5 – 10 years, the empower filtration chamber stainless steel Electrostatic Precipitator (EP) is also washable. So the model ElectroMed is a real permanent use design machine on market. For the other 3 models of MediaMed, ChemMed and CaebonMeduser user is just need to replace the empower filtration chamber only.



Washable Electrostatic Precipitator Chamber (EP) of ElectroMed

Constructed with Stainless Steel material make the EP chamber become durable, user just need to wash the chamber with clean water regularly, then the chamber will become back as a new one. An electrostatic precipitator (ESP), or electrostatic air purifier is a particulate collection device that removes particles including bacteria & virus, mold spore & pollen etc... from a flowing gas (such as air) using the force of an induced electrostatic charge. Electrostatic precipitators are highly efficient filtration devices that minimally impede the flow of indoor polluted air through the device, and can easily remove fine particulate matter from the air stream.

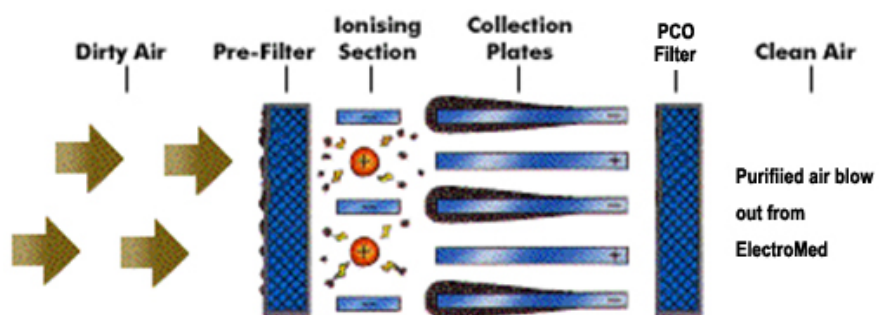


A technique for removing particulate pollutants from air prior to their exhaustion to a stack. A system of thin wires and parallel metal plates are charged by a high-voltage direct current (DC) with the wires negatively charged and the plates positively charged. As air containing fine particulate pollutants are passed through this system, electrical charges are transferred from the wire to the particulates in the air. The charged particulates are then attracted to the plates within the device, where they are then shaken off the plates during short intervals when the DC current is interrupted. Stack air can be shunted to a second parallel device during this period). They fall to a collection bin below the plates. Under optimum conditions, electrostatic precipitation is 99% efficient in removing particulates as small as 0.01um including virus from air.



Filtration process of MEDAIR EP

Air is drawn into the unit to capture particles. The airborne particles including bacteria and virus, mold spore and pollen etc... pass through an electrostatic field and receive an ionized charge. The charged particles move into a collector section where each alternate plate is charged with the same polarity as the particles. This drives the particles to the second set of plates of an opposite charge to attract and collect the



Filtration process by MEDAIR ElectroMed's electrostatic precipitator chamber

particles. The remaining air, cleaned up to over 99% of its impurities including 0.01um particles and virus, is then returned to the indoor. MEDAIR EP contains permanent cells and are available with water wash.

Strengths of MEDAIR Electro Chamber

Electro Chamber

The biggest strength of electrostatic air filters (Electro Chamber) is that they can effectively remove viruses, bacteria, pollen and cigarette smoke. They are generally quiet and have a low electrical operating cost.

1/. Safety operation: Although with such high electrostatic voltage design 6,000VDC – 9,000VDC, the low electrical current (Amp) feature makes the whole chamber operated under safe conditions, together with the safety Door Lock Device and Safety Fuse Device installed, user may not be injured during machine operation.

2/. Direct kill up all bacteria and virus by the theory of “Carbonization” immediately: With such safe but high electrostatic voltage design, MEDAIR Electro Chamber is sufficient to kill up all bacteria and virus immediately.

3/. Environmental friendly and cost saving by Permanent Use feature: User just needs to wash the chamber with water regularly, then the chamber filtration efficiency will become back as higher as when newly bought and used.

4/. Stainless Steel metal made for durable and reliable use: The material nature of Stainless Steel metal is never rust or oxidize, rigid and durable feature makes the MEDAIR Electro Chamber permanent use.

5/. High efficiency for air filtration purpose up to 99% One Pass Filtration Efficiency for particles down to 0.01 μm particles and also virus: Electrostatic air filter has been widely used on market for fine dust particles removal purpose for many years and has been recognized as the most effective one till now. The first use of electrostatic filtration to remove particles from an aerosol was by Hohlfeld in 1824. The first portable electrostatic air filter systems for homes was marketed in 1954 by Raytheon.

6/. The particles size effectively removed is 30 Times smaller than normal HEPA filter on market: HEPA filter are confirmed can effectively remove 0.3 μm particles (1/300 of human hair) and electrostatic precipitator EP are confirmed can effectively remove 0.01 μm particles (1/10,000 of human hair), 30 Times smaller than normal HEPA filter.

7/. 1,000 Hours Performance Test to prove the MEDAIR Electro Chamber can continuously provide a stable and maintain the air filtration efficiency after operated 1,000 hours despite how dirty the metal plate of the chamber. Which can guarantee the machine operation performance in the applied environment, user may not need to worry the machine efficiency drops down despite after used a long period of time. * For operate 10 hours a day, 1,000 hours means around 3 months.

8/. 365 Days maintain optimum air filtration performance that HEPA filter never provides: User just needs to wash out the EP chamber regularly e.g. by quarterly refer from MEDAIR 1,000 Hours Performance Test, the chamber will always maintain at their optimum performance. Unlike other HEPA filter on market, HEPA will be continuously be contaminated and consumed day by day use, the highest the performance when newly used, the worst the performance before the day replaced, we can never accept the HEPA performance of our air purifier just provides 50% after used for few months or just 20% to 30% before the day we replace after a year?