

MEDAIR

601 and 504

air purification theory

Filtration Theory



MEDIAIR Standard Filtration Process:

Washable Pre-filter: Antimicrobial & Lifetime design. To remove medium to large size dust particle, as the 1st step of filtration process.

PCO Photocatalytic Filter: Function with UV lamp along with a substance, called catalyst that reacts with the UV light. They are intended to destroy gaseous pollutants by converting them into harmless products, such as ozone. Ozone reacts with ultraviolet radiation and finally results become oxygen. UV light shines onto photocatalyst, activating the strongest degradation capacity of, because oxidation-reduction could destroy odors and gaseous pollutants. Hydroxyl ion {OH-} would be oxidized into hydroxyl radical {OH'}. OH', Superoxide Anions { } and

Hydroperoxyl Radicals {HOO'} are highly effective air cleansing agents to eliminate airborne harmful gas such as formaldehyde

LED UV Lamp: Lifetime design. Extreme low energy use, 40% saving than traditional UV lamp and 5 – 8 times lifespan longer. This LED UV are designed to function with the photocatalytic filter mainly

Plasma Ion Generator: Lifetime design. To create its own fresh and clean bio-climate in your home or office is based on the same plasma technology originally invented by renowned scientist, Albert Einstein. This bio-climate is rich in active oxygen molecules so your environment feels as clean as the air in nature; high on the mountain tops & forest, near a waterfall.



4 Filtration Chambers designed by MEDIAIR

All MEDIAIR air purifier 601 and 504 series are designed with standard filtration process: Washable Pre-filter, Photocatalytic Filter, LED UV Lamp and Plasma Ion Generator. To suit for different indoor environment needs and focusing for specific air pollutants remove purpose, MEDIAIR are specially design with 4 different empower filtration chambers into the machine. Customer can easy to select the most suitable one for her.

601 / 504 ElectroMed

Chamber designed with MEDIAIR Metal type Electrostatic Precipitator filter (EP). Need No consumable filter replace. High CADR can provide. High efficiency to remove PM2.5 and PM10 fine dust particles. Effective to remove cigarette smoke particle at **0.01 um**. Powerful to kill bacteria and virus, The best choice for extreme hygiene area.

601 / 504 MediaMed

Chamber designed with MEDIAIR True HEPA Filter, which can remove 99.97% of 0.3 um fine dust particles. Under the international standard requirement, HEPA Filter is a must to design into a HVAC system of hospital. HEPA filter has been proof can effective to remove fine dust particle and airborne bacteria

601 / 504 ChemMed

Chamber designed with MEDIAIR Honeycomb Metal Catalytic Chemical Filter. Effective to remove most common indoor gas pollutants e.g. TVOC, HCHO, benzene, ammonia and smoke smell etc... Long functioning capacity with long replacement lifetime. High air flow capacity for large area use

601 / 504 CarbonMed

Chamber designed with heavy duty MEDIAIR Honeycomb Activated Carbon Filter. Powerful and efficient to absorb strong chemical gas and bad odor. Effective for all kind of common indoor chemical and odor. Suit for who request strong and fast air purification. High air flow capacity for large area use.

MEDAIR 601 Electro Chamber filtration chamber

Chamber designed with MEDAIR Metal type Electrostatic Precipitator filter (EP). Need No consumable filter replacement. Lifetime design. High CADR can provide. High efficiency to remove PM2.5 and PM10 fine dust particles. Effective to remove cigarette smoke particle at **0.01um**. Powerful to kill bacteria and virus, The best choice for extreme hygiene area requested. High voltage above 6,000V is discharged from **electrostatic device**. When airstream is draw into static zone, high voltage give positive charges onto particulate matters and microorganism such as dust, smoke, pollen, bacteria and virus so that they will be attracted together on collector which is negative charge. At the same time, there would be **electric spark** in device because such as animal dander, tiny floss and microorganism would be shocked by high voltage discharged, then **“Carbonized”** to became particles (bacteria and virus would be kill directly) and attracted by the chamber collector. Through this patented advance technology, MEDAIR air purifier guarantee will not generate unwanted Ozone come out from the machine. Material: Stainless Steel metal, washable by water.

Permanent use.



MEDAIR 601 Media Chamber filtration chamber

Chamber designed with MEDAIR HEPA Filter, which can remove 99.97% of 0.3um to 0.1 um fine dust particles. Under the international standard requirement, HEPA Filter is a must to design into a HVAC system of hospital. HEPA filter has been proof can effective to remove fine dust particle and airborne bacteria. All MEDAIR True HEPA surface are coated with antimicrobial material to direct kill bacteria and virus, prevent such micro-organism growth up on the filter surface when they trapped by the filter. Large surface area of MEDAIR HEPA will increase the operating lifetime of the filter, save up the running cost. Most suitable for where is heavy pollutant level of dust particle e.g. PM2.5 and PM10 or above .
Lifetime: 4,000 to 5,000 Hours (12 hours per day operation – around 1 year)

601 Media Chamber



MEDAIR 601 Chem Chamber filtration chamber

Chamber designed with MEDAIR Honeycomb Catalytic Metal Chemical Filter. Effective to remove most common indoor gas pollutants e.g. TVOC, HCHO, benzene, ammonia, ozone and smoke smell etc... Long functioning capacity with long replacement lifetime. High air flow capacity for large area use. Such durable catalytic material can provide long time chemical gas and odor removal function, filter functioning may last for up to 2 - 3 years. Chemical and odor molecule will be destroyed by "Oxidizing" process, which process will not consume the catalytic chemical material, it keeps the filter functioning for long time of use. With the advanced filter fabrication technology, it makes MEDAIR Chem Chamber provide more than 300 cells per cm² on filter surface, such large number of cells can totally increase the reaction surface of the filter with pollutant air, it makes the Chem Chamber can provide up to 80% of One Pass Removal Efficiency for chemical gas and odor, such high removal efficiency then helps us to clean up the environment air as fast as possible finally.

Lifetime: 8,000 to 10,000 Hours (12 hours per day operation – around 1 – 2 year)

601 Chem Chamber



MEDAIR 601 Carbon Chamber filtration chamber

Chamber designed with heavy duty MEDAIR Honeycomb Activated Carbon Filter. Powerful and efficient to absorb strong chemical gas and bad odor. Effective for all kinds of common indoor chemical and odor. Suitable for those who request strong and fast air purification purpose. High air flow capacity for large area use. Worldwide recognized as the most effective material to remove chemical and bad odor till now, activated carbon material can absorb extreme strong odor and chemical gas in very short time e.g. "One Pass" through the air purifier. It makes the indoor environment become clean and fresh in short period of time. Low pressure drop of MEDAIR honeycomb carbon can increase the total number of air changes in the room. MEDAIR honeycomb carbon filter has been widely used in different areas with centralized air conditioning system HVAC system included: kitchen exhaust, fresh air intake and also the fan coil return for indoor recirculation purpose etc... The different job references and proof results have been recognized that MEDAIR honeycomb carbon filter as one of the most effective odor and chemical removal filters now.

Lifetime: 2,000 to 4,000 Hours (12 hours per day operation – around 1/2 – 1 year)

601 Carbon Chamber

