

MEDAIR BULLETIN January 2013

## MEDAIR 601 and 504 Series

### ElectroMed and MediaMed

Solution for PM10 and PM2.5 Fine Dust Particle

#### **Particle Pollution (PM10) and (PM2.5)**

Particle pollution (also known as "particulate matter") in the air includes a mixture of solids and liquid droplets. Some particles are emitted directly; others are formed in the atmosphere when other pollutants react. Particles come in a wide range of sizes. Those less than 10 micrometers in diameter (PM10) are so small that they can get into the lungs, potentially causing serious health problems. Ten micrometers is smaller than the width of a single human hair.

**Fine particles (PM2.5).** Particles less than 2.5 micrometers in diameter are called "fine" particles. These particles are so small they can be detected only with an electron microscope. Sources of fine particles include all types of combustion, including motor vehicles, power plants, residential wood burning, forest fires, agricultural burning, and some industrial processes.

**Coarse dust particles.** Particles between 2.5 and 10 micrometers in diameter are referred to as "coarse." Sources of coarse particles include crushing or grinding operations, and dust stirred up by vehicles traveling on roads.

#### **How can particles affect your health?**

Particle exposure can lead to a variety of health effects. For example, numerous studies link particle levels to increased hospital admissions and emergency room visits and even to death from heart or lung diseases. Both long- and short-term particle exposures have been linked to health problems.

**Long-term exposures**, such as those experienced by people living for many years in areas with high particle levels, have been associated with problems such as reduced lung function and the development of chronic bronchitis and even premature death.

**Short-term exposures** to particles (hours or days) can aggravate lung disease, causing asthma attacks and acute bronchitis, and may also increase susceptibility to respiratory infections. In people with heart disease, short-term exposures have been linked to heart attacks and arrhythmias. Healthy children and adults have not been reported to suffer serious effects from short-term exposures, although they may experience temporary minor irritation when particle levels are elevated.

## US EPA's Air Quality Index

AIR QUALITY INDEX FOR PARTICLE POLLUTION		
Air Quality Index	Air Quality	Health Advisory
0-50	Good	None.
51-100	Moderate	Unusually sensitive people should consider reducing prolonged or heavy exertion.
101-150	Unhealthy for Sensitive Groups	People with heart or lung disease, older adults, and children should reduce prolonged or heavy exertion.
151-200	Unhealthy	People with heart or lung disease, older adults, and children should avoid prolonged or heavy exertion. Everyone else should reduce prolonged or heavy exertion.
201-300	Very Unhealthy	People with heart or lung disease, older adults, and children should avoid all physical activity outdoors. Everyone else should avoid prolonged or heavy exertion.

## To breath the healthy air by MEDAIR

MEDAIR  
ElectroMed  
601

Chamber designed with MEDAIR Stainless 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 down to **0.01 um**. Powerful to kill bacteria and virus, The best choice for extreme hygiene area.

MEDAIR  
MediaMed  
601

Chamber designed with MEDAIR 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

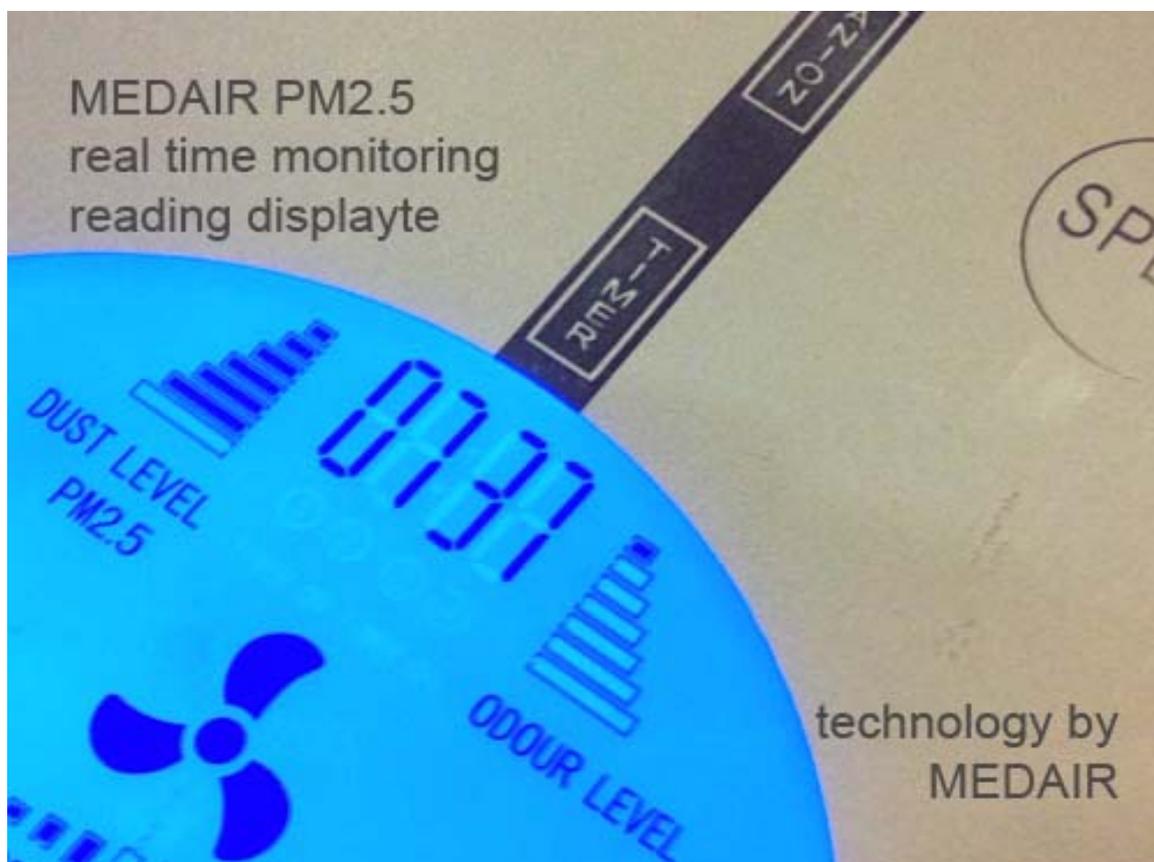
## MEDAIR Performance Test and Proof

Many MEDAIR field test has been proofed can effective to drop down over 50% of the ambient PM10 and PM2.5 fine dust particle in room within 10 minutes and maintain over 70% efficiency drop down capacity after 20 minutes in room.

[www.medair.asia](http://www.medair.asia)

# MEDAIR the only professional air purification machine provide you with real time PM2.5 monitoring reading

**MEDAIR:** Unlike other air cleaner on market claim for removing fine dust particles e.g. PM10 or PM2.5, MEDAIR machine equipped with a high grade air sensor that we can find in most professional air measurement equipment, to provide real time air quality monitoring with reading display: PM2.5 level. Now, we can have our own air measurement equipment to check out our IAQ level at anytime. Together with the MEDAIR auto mode function, that air treatment unit can speed up the purification process (if air pollutants level suddenly increase) in your area automatically to protect the occupants inside the room.



(From the above photo, the PM2.5 reading is 7.37. For reference: depends on different country standard, reading below 10 may classified as excellent or good class)

Note: To maintain the accuracy of the PM2.5 monitoring function, user should clean up the air sensor head regularly, cleaning period would be depends on different environment and locations.

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