



APM 550M



NEED OF MONITORING

Coarse particles (PM 10) can accumulate in the respiratory system and aggravate health problems such as asthma and studies sponsored by US EPA have concluded that fine particles (PM 2.5), penetrate deeply into the lungs. India adopted monitoring of PM 10 as part of the Ambient Air Quality network in 1994. PM 2.5 has been included in the revised ambient air quality standards notified in November 2009

APPLICATION

This sampler is used for simultaneous Monitoring of PM 10 & PM 2.5. It may be noted that CPCB has recommended PM 10 sampling at a high flow rate of 1m³/min. APM 550 M Combo Sampler is not designed for Compliance Monitoring as per the National Ambient Air Quality Standards. It has been developed for use by researchers and academicians who need a convenient system for monitoring both parameters and do not have to comply with CPCB requirements.

WORKING PRINCIPAL

The APM 550M system is a manual method for sampling PM10 and fine particles (PM2.5 fraction). Ambient air enters the APM 550M system through an omni-directional inlet designed to provide a clean aerodynamic cut-point for particles greater than 10 microns. Envirotech has modified the original EPA design for this Impactor so that it now operates at 2m/hr i.e. twice the original flow rate. The air stream below the PM 10 separator is now split into two parts through a streamlined flow splitter - one stream immediately passes through a Filter Assembly to provide the PM10 sample while the other stream passes through a WINS impactor that has an aerodynamic cut point at 2.5 microns. The air sample and fine particulates exiting from the PM2.5 impactor are passed through a filter membrane that retains the FPM.

The brushless, continuous rated induction motor driven suction pump of the APM 550 M causes no electromagnetic interference (EMI) in gadgets and is immune to voltage fluctuations.



APM 550M



FEATURES

- Simultaneous sampling of PM 10 and PM 2.5 Particulates
- Two part cabinet ensures that PM 2.5 filter remains close to ambient air temperature at all times.
- Low sampling rate of 1m³/hr reduced filter choking even in areas of high PM concentration
- Critical Orifice maintains constant flow rate.
- Oil free pump requires very little maintenance.
- Induction motor driven pump is immune to voltage fluctuation.

SPECIFICATIONS

Particle Size	Omni-directional air inlet with PM 10 separation through an impactor followed by PM2.5 separation through a WINS impactor.
Sampling rate	Constant sampling rate of 1 m ³ /hr, unaffected by voltage fluctuation maintained by critical orifice system.
Filter Media	Filter holder designed to accept any standard 47 mm diameter filter media.
Sample Volume	Independent Rotameters for PM 10 & PM 2.5 flow streams. Time Totalizer records the period of operation
Power Requirement	Single phase AC 220 volts, 50 Hertz supply. Sampler unaffected by (+/-) 10% fluctuation in supply voltage.

1
Year
Warranty

*Specifications are subject to change without any prior notification



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