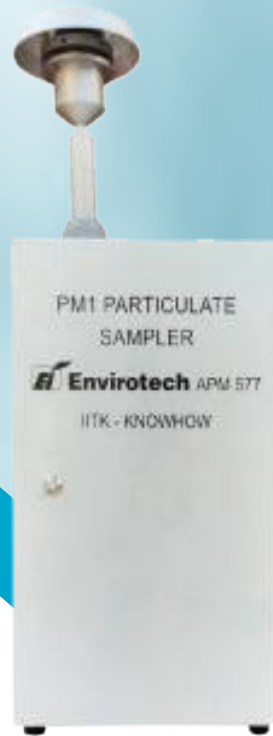




APM 577



NEED OF MONITORING

The sub-micron “ultra fine” particles, which penetrate deeply into the lungs, are more likely to contribute to the health effects (e.g., premature mortality).

To protect communities exposed to particulate matter, US EPA and other agencies in the developed world are now adopting new standards for PM1 levels. APM 577 Particulate Sampler has been developed to fill this critical need.

APPLICATION

APM 577 sampler is housed in a compact, light, robust & weather proof cabinet made of aluminum for sampling very fine sub-micron particulates (PM1 fraction) in the ambient air.

WORKING PRINCIPAL

This sampler is based on impactor design standardized by Indian Institute of Technology, Kanpur. The air enters in the system through an omni-directional inlet designed to provide a clean, aerodynamic cut point for particles. The air sample & fine particulates exiting from the PM1 impactor are passed through a 47 mm diameter PTFE filter membrane that retains the sub-micron PM1 dust. The sampling rate of the system is held constant at 10 LPM by a suitable critical orifice. A dry gas meter is incorporated to provide a direct measure of the total air volume sampled. Time totalizer provides information on actual run time of sampling. An electronic timer is also provided to start the sampling and shut off the sampler as per requirement of the sampling, thus eliminating the need of presence of man power at site.

The system is provided with a brushless, continuous rated induction motor driven suction pump which eliminates electromagnetic interference (EMI) in gadgets like TVs, which sometimes hinders operation of air samplers in residential areas and is immune to voltage fluctuations.



APM 577



FEATURES

- Totally indigenous (designed, developed and made in India)
- Uses a maintenance-free brush-less pump with low noise.
- Lower sampling rate of 10 LPM reduces filter choking even in areas having high FPM levels.
- Provision for attachment to sample gaseous pollutants simultaneously.
- By locating impactor & filter holder assembly separate from all power dissipating components, the system ensures that the temperature of filter remains close to the ambient temperature and there is no chance of losing volatile fraction of PM1.
- Compact and portable for convenient field operation

SPECIFICATION

Particle Size	Omni-directional air inlet with PM1 separation through an impactor designed and perfected by IIT Kanpur.
Sampling rate	Constant sampling rate of 10 liter per minute, unaffected by voltage fluctuation maintained by critical orifice system.
Filter Media	Filter holder designed to accept any standard 47 mm diameter Teflon membrane.
Sample Volume	Dry Gas meter records the total air volume sampled.
Automatic sampling control	24 hour programmable timer is provided to automatically start and shut off sampler as per requirement. Power Requirement: Single phase AC 220 volts, 50 Hertz supply. Sampler unaffected by +/- 10% fluctuation in supply voltage.
Dimension	With Impactor & Inlet: 35cm X 26cm X 87cm, Without Impactor & Inlet: 35cm X 26cm X 58cm
Weight	20 kg (approx.)

1
Year
Warranty

*Specifications are subject to change without any prior notification



For More Information Contact

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