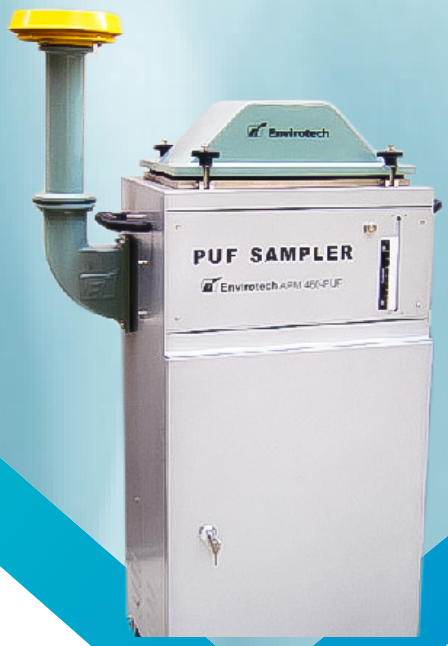
Envirotech
We Care for Better Air

APM 460 PUF



NEED

Polycyclic Aromatic Hydrocarbons (PAHs) have been extensively studied in recent years due to their carcinogenic properties. Benzo (a) pyrene in particular has been studied extensively and is a proven carcinogen. PAHs are ubiquitous in environment and are known to form due to anthropogenic and natural sources. Common pesticides and Polychlorinated Biphenyles (PCBs) are also found in ambient air mostly due to their extensive use in agriculture. There was a need of a sampler which can collect PAH,PCBs and pesticides in particulates and in gaseous phase both. APM460 PUF is designed for collection of particulates and there is a provision for installation of PUF cartridge for collection of gaseous pollutants.

APPLICATION

The APM 460PUF Sampler has been designed for monitoring of Polycyclic Aromatic Hydrocarbons (PAHs), Pesticides and Polychlorinated Biphenyls (PCBs) and Dioxins (PCDDs) in the ambient air.

WORKING PRINCIPAL

Ambient air laden with suspended particulates enters the system through the Inlet Pipe. As the air passes through the cyclone, coarse, (non respirable dust) is separated from the air stream by centrifugal forces acting on the solid particles. These separated particulates fall through the cyclone's conical hopper and collect in the sampling bottle placed at its bottom. The fine dust forming the Respirable Fraction (PM_{10}) of the Total Suspended Particulate (TSP) passes through the cyclone and is carried by the air stream to the Filter Paper, clamped between the Top Cover and Filter Adaptor Assembly. The Respirable Dust (PM_{10}) is retained by the filter and particulates free gases pass through the PUF cartridge immediately below the Filter holder assembly.The system uses a Polyurethane Foam (PUF) sorbent placed below a particulate filter of size 8"x10". The PUF holder is compatible with standard 75mm long, 60mm Dia PUF cartridges prescribed in applicable EPA methods TO-4A, TO-9A & TO-13A for high volume sampling of Dioxins, Furans etc. Later filter is extracted in Soxhlet apparatus by following standard procedure and concentration of these compounds is determined using GC-FID/HPLC/GC-MS.

FEATURES

- Teflon Lined PUF holder compatible with standard 60mm dia PUF cartridges
- Brushless blower reduces equipment downtime and maintenance effort.
- Significantly reduced Noise
- Electromagnetic Interference (EMI) to TVs totally eliminated
- Over temperature cut-off protects Blower

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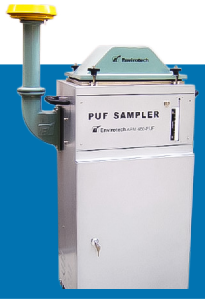

SPECIFICATIONS

Flow Rate	200 - 300 liters/minute user adjustable via suitable motor speed control
Particle Fractionater	A cyclone device designed for flow range of 200-250 liter/min for fractionating dust into two fractions. PM_{10} dust is accumulated on the filter paper while coarse dust is collected in a cup placed under the cyclone.
Puf Cartridge	Polyurethane foam for trapping the low molecular weight PAH and PCBs Size: 60mm diameter length about 75mm.
Puf Housing	Housing of APM 460PUF is compatible with standard borosilicate glass cartridges available from SKC or other international ven-dors. It is lined with Teflon and fitted at the bottom of filter adapter casting.
Recommended Filter	Any standard filter. of size 8”x10”
Elapsed Time Indicator	Electromechanical Time Totalizer (0 to 9999.99 hours) accurate upto 0.6 minute gives actual operation time of the sampler.
Automatic sam-pling time control	A programmable Digital Timer is used to shut off the sampler after a preset sampling interval.
Blower	Brushless induction motor driven with inbuilt over temperature protection.
Power Requirements	Nominal, 220V,Single Phase, 50-Hz AC mains supply. Power consumption is 400 watts
Overall Size	Approximately 430 x 320 x 930mm.
Weight	45 kg

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Year Warranty

*Specifications are subject to change without any prior notification

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For More Information Contact

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