



NEED

Users involved in research work and those who are interested in very very precise values, have suggested us to incorporate a flow control device which can maintain a constant flow rate throughout the monitoring period. To address this, an electronic feedback flow controller with pressure sensor, to automatically maintain constant flow rate during the sampling period has been designed and incorporated in this model, APM 460DXNL maintains constant flow rate throughout the entire sampling period.

APPLICATION

The APM 460DXNL is used for precise monitoring of PM 10 in the ambient air. The present special design of the blower impeller and acoustic material used in the blower ensures that it does not produce any unpleasant noise while in operation. Thus the machine can be operated even in silent areas like a library, hospitals, wild life sanctuary and in other noise sensitive areas including residential areas.

WORKING PRINCIPAL

The size fractionating cyclone of the APM 460DXNL operates close to its designed separation velocity, resulting in a sharper cut-off for particulates larger than 10 microns (CSIR NEERI knowhow).

The APM 460DXNL uses an electronic feedback flow controller with pressure sensor, to automatically maintain constant sampling rate through the filter/cyclone assembly. When the dust load on filter becomes excessive and exceeds the capacity of the blower, the electronic circuits provided in the flow controller automatically shut down the machine. (As per BIS IS 5182 Part 23:2006). To compensate for a variation in filter characteristics the flow controller has a provision to allow adjustment of the sampling rate.

The APM 460 DXNL uses a brushless, noiseless blower manufactured by a prominent American company. This heavy-duty blower can be operated for several thousand hours without any maintenance. As the blower of the APM460 DXNL is powered by an Induction Motor it is practically immune to voltage fluctuations thus need of voltage stabilizer is completely eliminated.

FEATURES

- Automatic Flow Controller with electronic feedback for constant sampling rate throughout the sampling period.
- Brushless regenerative blower with very little noise.
- Heavy duty Induction motor fitted in blower requires no maintenance.



APM 460DXNL



SPECIFICATIONS

Housing	Sturdy Aluminium cabinet to house Blower, Filter holder assembly, time totalizer, Programmable timer, Flow Controller & Flow Measurement device
Particulate Sampling / Separation	A cyclone is used for fractioning the dust into two fractions at D-50 cut off for 10 microns. Particles from 10 micron down to 0.1 micron are collected on Filter Paper placed on filter holder. Coarse particles (bigger than 10 microns) have collected in a cup under the cyclone.
Heavy Duty Blower	Brushless & Noiseless, operated at 220V AC (+/-) 10V single phase 50 Hz, supply continuously for at least 28 hours
Flow Rate	0.8 – 1.4 m ³ /min free flow with flow stabilization by Electronic Feedback Flow Control Device
Filter Holder	Aluminium casting with fine finished rubber gasket
Flow Measurement	Glass Manometer Tube accurately graduated directly in m ³ /min and measured across a critical orifice
Flow Controller	The system will automatically maintain the flow rate constant through an Electronic Flow Controller with pressure sensor and compensate for dust load deposited on the filter. When the dust load increases beyond the capacity of the blower the flow rate will begin to decrease and the system will automatically be shut-down if the flow rate tends to drop below 0.85 m ³ /min (As recommended in BIS IS 5182-Part 23:2006).
Programmable Timer	0-24 hrs (Flexible to set at any interval of time)
Time Totalizer	0 – 9999.99 hrs
Size & Weight	400 x 300 x 650mm, 60Kg

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Year
Warranty

*Specifications are subject to change without any prior notification

To facilitate sampling of gaseous pollutants, provision has been made to attach the APM 411/ 411TE gaseous sampling attachment with the main sampler