

NATIONAL CENTRE FOR SUSTAINABLE COASTAL MANAGEMENT

Ministry of Environment and Forests (MoEF)

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Technical Specifications for High volume Air SPM sampler with Accessories (Quantity required -3)

Sl. No	Description
1. Inlet	Sampling Inlets for PM ₁₀ , PM _{2.5} , and TSPM
2. Flow	<ul style="list-style-type: none"> • Volumetric Flow Rate 1m³ /Hr • Flow accuracy: ±2% • Microprocessor based digital flow controller for constant flow rate even as particulate matter loading in filter increases • Flow in LPM on digital display with a resolution of 0. 01 LPM under actual operating conditions. • Flow rate maintained constant with ±2% accuracy throughout sampling period.
3. Filter	<ul style="list-style-type: none"> • Filter holder: Anodised aluminium or any non-reactive and non-corrosive material • Filter Media: Quartz, Teflon or Glass Fibre filter, • Standard 47 mm filter holder with filter support rod and SS mesh adapter.
4. User interface	<ul style="list-style-type: none"> • Interface: accessed via in-built keypad and LCD display. • Simple user programming of sampling periods, including multiple daily, weekly, 1-in-x days sampling sequences as well as continuous operation • Data Storage: Internal data logging with time/date stamp, total STP corrected and uncorrected sample volume, average temperature, pressure. • USB serial interface to enable data to be easily downloaded to PC • Display: Flow rate LPM, Volumetric flow, Ambient temperature, Filter temperature, Barometric pressure • Output terminal: USB transferring data into pc.
5. Operation	<ul style="list-style-type: none"> • Cut-off for PM¹⁰ particles through an omni-directional jet impactor system • Collection of PM^{2.5} is on main filter after passage of airstream through WINS impactor • Operating Environment: Operating ambient relative humidity 0–99%. temperature 0-50°C, • Quiet operation: Sampler should have extremely quiet operation as it may be used in residential locations. < 60 db • Calibration: Flow rate calibration kits to be provided
6. Other	Clock / Timer system: Programmable real time control system with automatic start & stop & digital display of date& time & time of sampling. Accuracy ± 2 min / month Construction: Weatherproof enclosure required .
7. Filter paper	Filter paper for collection of :47 mm dia PTFE
8. Power Requirement	230V AC, 50 Hz

