

# **EPAM 5000**

The Environmental Particulate Air Monitor Model EPAM-5000 is an innovative light scattering nephelometer and filter gravimetric air sampler combined in one portable compact and light weight design.

The EPAM-5000 provides a complete real-time profile and graphical representation of airborne particulate levels and exposures with data read out in milligrams per cubic meter (mg/m³). This dynamic capability is not possible with using only a gravimetric particulate sampler. The EPAM-5000 combines both the real-time and gravimetric technique, which allows the investigator more accuracy in defining and analyzing the nature and magnitude of potential health risk resulting from the inhalation of lung damaging particulates.

The EPAM-5000 complements both the EPA and OSHA reference methods. By offering an inexpensive and fast means to define problem areas and to "pinpoint" where more study is needed.

#### **Features**

- Immediate display and data storage of lung damaging aerosols.
- Unique aerodynamic particulate sizing real-time sensor and in-line 47mm filter cassette which allows concurrent gravimetric samplings.
- High correlation to EPA PM-10 methods and TEOM\*.
- Easy to use data analysis software.
- 5.0 Lpm (liters per minute) flow compensated sampling pump.
- True 24 hour battery capacity or continuous A/C power operation.
- Audible alarm siren.
- Optional Wireless Data Transmission to Central Computer

The EPAM-5000 reduces the cost of acquiring data for regulatory compliance program support and safety audit reporting. The benefit of real-time data collecting allows for immediate and permanent documentation and assists in reducing the number of manual filter gravimetric tests. This reduces labor costs and associated lab analysis and results in a cost saving for any air monitoring programs.

#### **Applications**

- Survey sampling for lung damaging ambient PM-10 &microm and PM-2.5 &microm particulates
- EPA Saturation Monitoring studies to define problem areas
- Complements fixed monitoring sites with real-time graphical reports
- Waste site fence line monitoring for qualifying off site particulate migrations
- Evaluating pollution controls and equipment
- Trend analysis data for particulate air quality
- Emergency response and fugitive emissions
- Wild fire and controlled burning studies
- Urban transportation air quality studies
- · Particulate indoor air quality studies
- Determining levels of respiratory production
- A useful too in all environmental and occupational health and safety studies

## Safety and Environmental – IAQ

Specification	
Display	Large Alphanumeric LCD 4 line, 20 character display
Operation	Four key splash proof membrane switch - menu driven
Calibration	gravimetric reference NIST traceable - SAE fine test dust
Accuracy	±10% to filter gravimetric SAE fine test dust
Sensing rang	0.001 to 20.0 mg/m³ or .01 to 200 mg/m³ (optional)
Particulate size range	.01 - 100 μm
Precision	$\pm .003 \text{ mg/m}^3 (3 \mu\text{g/m}^3)$
Sampling flow rate	1.0 - 5.0 Liters/minute
Filter cassette	47mm FRM style
Alarm output	90 dB at 3 ft
Recording time	1 second to 15 months
Sampling rate	1 second, 10 seconds, 1 minute and 30 minutes
Date storage	21,600 data points
Memory & time storage	>5years
Real-time clock & display	hours, minutes, seconds, day, month, year
Data display	concentration range in mg/m³ & TWA, Max, Min, STEL, date time
Digital Output	RS-232
Operation temperature	-10°C to 50°C
Storage temperature	-20°C to 70°C
DustComm Pro Software	Windows driven for graphical and data translation
Power	Rechargeable and interchangeable battery
Operating time	>24 hours on battery
Charging time	Approximately 22 hours
Humidity	95% non-condensing
Dimension (case)	14" x 6.0" x 10.00"
Weight	12 lbs

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