

## “Capacity Building and Strengthening Institutional Arrangement”

### Analysis and sampling of air and air pollution

# Mobile system for air monitoring

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APAT

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## APAT MOBILE STATION

- All the air pollution monitoring systems are installed in the vehicle.
- This mobile system can satisfy even for urgent air pollution monitoring request at any site.
- A mobile system for field monitoring is easily implemented in measurement campaigns for road traffic monitoring or pollution events.

## APAT MOBILE STATION



Instruments currently installed inside the mobile station include the following:

Parameter	Instrument	
Benzene, Toluene, Xylene	Orion	BTX 200
SO <sub>2</sub>	Monitor Europe	ML 9850
NO <sub>x</sub>	Monitor Europe	ML 9841
CO	Monitor Europe	ML 9830
O <sub>3</sub>	Thermo electron	49C
PM <sub>10</sub> ; PM <sub>2.5</sub>	Tecora	Sentinel
PM <sub>10</sub> ; PM <sub>2.5</sub>	Environnement	MP 101
PM <sub>10</sub>	Unitec	LSPM10
PM <sub>10</sub> ; PM <sub>2.5</sub>	Thermo electron	Teom 1400a
PM <sub>1</sub>	Thermo electron	Teom 1400a

## BENZENE, TOLUENE, XYLENE

### Syntech Spectras BTX



The instrument is a gas chromatograph with a built-in preconcentration system. Hydrocarbons are preconcentrated on Tenax GR, desorbed thermally and separated on an EPA624 equivalent column, to reach optimal separation from interfering hydrocarbons. Analysis is done by a photo ionisation detector (PID). This ensures a high specific sensitivity for benzene and other aromatic hydrocarbons.

## SO<sub>2</sub>

### Monitor Europe ML 9850



Monitor Europe ML 9850 Sulphur Dioxide Analyser is able to measure low levels of hydrogen sulphide in ambient air. The Monitor Europe ML 9850 Sulphur Dioxide (SO<sub>2</sub>) Analyser uses **ultra violet (UV) fluorescence** technology to measure concentrations of SO<sub>2</sub> accurately and reliably.

## NO<sub>x</sub>

### Monitor Europe ML 9841



By the addition of an ammonia oxidiser, the Monitor Europe ML 9841 Oxides of Nitrogen Analyser is able to measure low levels of ammonia in ambient air. The Monitor Europe ML 9841 is a chemiluminescence analyser.

NO and NO<sub>2</sub> measurements from the same sample stream. No misleading artefacts due to stream switching.

## CO

### Monitor Europe ML 9830



Monitor Europe ML 9830 Carbon monoxide (CO) Analyser is a Non-Dispersive Infrared (NDIR) photometer, which uses Gas Filter Correlation (GFC) to measure low concentrations of CO accurately and reliably.





## THERMO ELECTRON 49C

THERMO ELECTRON 49C UV is photometric based ozone analyzer.

### Key Features:

- Dual cell design
- Electronic diagnostic transducers
- Multi-line alpha numeric display
- Dedicated communications processor
- Remote performance diagnostics



## PM<sub>10</sub>; PM<sub>2.5</sub>

### TECORA SENTINEL

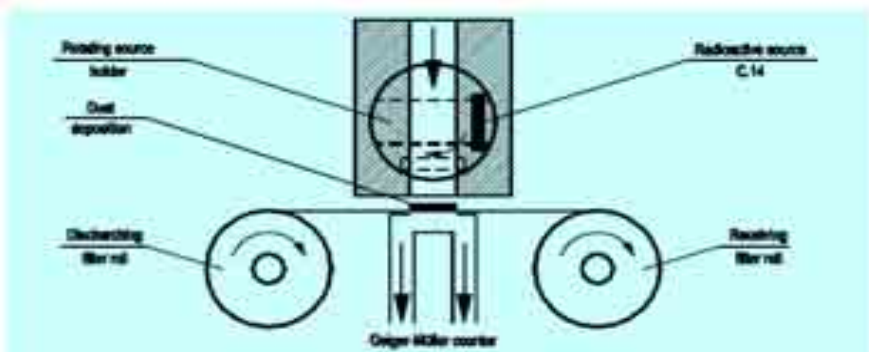


Automatic sequential 16 filters exchange module for PM<sub>10</sub> or PM<sub>2.5</sub> sampling.

Together with the sampler Charlie this unit has been certified by TUV as a system working in compliance with the EN 12341 norm.

# PM<sub>10</sub>; PM<sub>2.5</sub>

## ENVIRONNEMENT MP101M



Environment MP101M is an ambient suspended particulates automatic beta gauge mass monitor.

## PM<sub>10</sub>; PM<sub>2.5</sub>

### UNITEC LSPM10



LSPM10 is a particulate continuous monitoring instrument using the principle of orthogonal nephelometry.

Particle concentration is derived by measuring the light scattered from an excitation beam.

Constant flow controlled pump.

## PM<sub>10</sub>; PM<sub>2.5</sub>; PM<sub>1</sub>

### THERMO ELECTRON TEOM 1400A



The Series 1400a monitor incorporates an **inertial balance** that directly measures the mass collected on an exchangeable filter cartridge by monitoring the corresponding frequency changes of a tapered element.