EcoChem Mobile Continuous Emission Monitoring System (CEMS)

- Complete emission monitoring solution (probe, sample line, CEMS and DAS) provided in a mobile housing
- One or more system housed in air-conditioned trailer for minimal maintenance and hassle-free operations.
- Cellular phone link with powerful software allows total remote access for data monitoring, diagnostics and quick service support. Regularly emailed compliance reports
- Simple Hot-Wet sample system to streamline design
- Direct measurement (without converters) of up to 8 components including SO$_2$, NO, NO$_2$, N$_2$O, CO, NH$_3$, CH$_4$, CO$_2$, H$_2$O & O$_2$
- Three decades of design and application experience with installations including chemical and refining facilities, power plants, waste-to-energy, pharmaceutical manufacture, cement kilns and hazardous waste incineration plants.
- Cost-effective financial model; can be purchased outright or lease payments; short and long-term monthly lease plans which gives you the option to avoid large capital outlay

The EcoChem Mobile CEMS is a total “headache-free” CEMS outsourcing solution; you make monthly payments and EcoChem provides complete CEMS equipment, Data Acquisition System (DAS), calibration gases, emission data monitoring and exceedance checks; maintenance and service, including quarterly Calibration Gas Audits (CGA) and annual Relative Accuracy Test Audit (RATA) certification.
Unlike most other system integrators, EcoChem manufactures its own Probe, Analyzer and Data Acquisition System … **there is only one party responsible for the entire system!**

**Technical Specifications**

<table>
<thead>
<tr>
<th>Gas</th>
<th>Low Range</th>
<th>Typical Low Range</th>
<th>Typical High Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>SO2</td>
<td>0-20 PPM</td>
<td>0-1,000 PPM</td>
<td>0-1,000 PPM</td>
</tr>
<tr>
<td>NO</td>
<td>0-10 PPM</td>
<td>0-500 PPM</td>
<td>0-500 PPM</td>
</tr>
<tr>
<td>NO2</td>
<td>0-10 PPM</td>
<td>0-1,500 PPM</td>
<td>0-1,500 PPM</td>
</tr>
<tr>
<td>N2O</td>
<td>0-100 PPM</td>
<td>0-5,000 PPM</td>
<td>0-5,000 PPM</td>
</tr>
<tr>
<td>CO</td>
<td>0-10 PPM</td>
<td>0-100 PPM</td>
<td>0-100 PPM</td>
</tr>
<tr>
<td>NH3</td>
<td>0-10 PPM</td>
<td>0-1,000 PPM</td>
<td>0-1,000 PPM</td>
</tr>
<tr>
<td>CH4</td>
<td>0-100 PPM</td>
<td>0-2%</td>
<td>0-20%</td>
</tr>
<tr>
<td>CO2</td>
<td>0-2%</td>
<td>0-25%</td>
<td>0-25%</td>
</tr>
<tr>
<td>H2O</td>
<td>0-2%</td>
<td>0-25%</td>
<td>0-25%</td>
</tr>
</tbody>
</table>

* Typical range for application -- user can select appropriate range; dual ranges possible

**Weight & Dimension**

- Freestanding NEMA-12 or NEMA 4 housing
  - (Other user-defined configurations available)

**Flow Rate**

- 2-7 liter per minute with ¼” Swagelok connectors

**Display**

- Menu-driven LCD Panel can be field-customized

**Power**

- 115 volts AC / 60 Hz or 220 volts AC / 50 Hz

**Accuracy**

- ± 2 % of full-scale value

**Lower Threshold**

- 1 % of lowest range

**Response Time**

- 10 seconds

**Output Signals**

- Analog: 8 signals of 0/4 – 20 mA;
- Digital: 2 ports RS 232-C, 1 port RS 422-A;
- Relays: Failure Indicator, Service, Maintenance

**Operating Temperature**

- 32 – 105°F (0 – 40°C)

**Single MC3 analyzer measures gases including SO₂, NO, NO₂, N₂O, CO, NH₃, CH₄, CO₂, H₂O & O₂**