

ALL-WEATHER PASSIVE AIR SAMPLING SYSTEM

PASS Equipment

Applications

Sample Analysis

The Maxxam Advantage

Passive air samplers accurately and cost-effectively measure trace levels of atmospheric pollutants in ambient air. When monitoring air quality for environmental or occupational health & safety purposes, passive sampling allows for the physical uptake of a gas or vapour sample via a permeative or diffusive process. Requiring no electricity to operate, it is an effective alternative to active sampling (analyzer method). Passive sampling is preferred for use in remote and wilderness locations and for large-scale and regional air quality assessments.

PASS Equipment

Maxxam's proprietary Passive Air Sampling System (PASS) units are compact, portable, require no electricity and very little maintenance. The all-weather PASS has a durable top cover to shelter against rain, snow and wildlife. The unit itself can be secured to any support system with strapping or hose clamps and users can easily install up to three samplers per shelter to allow for efficient analysis across multiple parameters. Maxxam offers reusable samplers and shelters for sale or rental, depending on the specific needs of the project.

Validated for use in even extreme weather conditions, Maxxam's PASS provides an accurate, integrated, cost-effective way to gather and analyse air quality data. It can be used independently or as part of an extensive air monitoring network.

Applications

Passive sampling is used by environmental and engineering consultants, government agencies and research study groups in applications such as:

- Airshed & fenceline monitoring
- Compliance, nuisance & baseline studies
- Environmental impact assessments
- Odour monitoring
- Urban pollution complaints

It is particularly valuable in the following industries:

- Petroleum & petrochemical
- Chemical & fertilizer manufacturing
- Pulp & paper plants
- Mining operations
- Electrical generation/power plants
- Agriculture



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Sample Analysis

Maxxam's PASS is validated for ultralow level detection limits of the following pollutants based on 30 days exposure:

The system is also validated for Volatile Organic Compounds (VOCs) and benzene, toluene, ethylbenzene, and xylenes (BTEX).

After the desired sampling duration, the samplers are shipped back to our laboratory for analysis. Air tight shipping containers are used to ensure sample integrity between the field and the laboratory.

Pollutant	Descriptor	Detection Limit
Sulfur Dioxide	SO ₂	0.1 ppb
Hydrogen Sulfide	H ₂ S	0.02 ppb
Nitrogen Oxide	NO ₂ /NO _x	0.1 ppb
Ozone	O ₃	0.1 ppb
Ammonia	NH ₃	0.1 ppb

The Maxxam Advantage

Expertise: Serving customers across the globe, PASS analysis is conducted by our experienced team in Maxxam's Edmonton laboratory. We are able to deliver industry-leading detection limits using low-level gas chromatography-mass spectrometry (GC-MS) for the majority of the analyses.

Accreditation: Maxxam is certified or accredited for specific tests and matrices related to passive air analysis as registered with the Standards Council of Canada (SCC) in compliance with ISO/IEC 17025.

Quality: In addition to accreditation, Maxxam employs over 40 staff dedicated to quality assurance and quality control. Our unparalleled quality management system helps ensure that the data we generate is accurate, reliable, and defensible.

Maxxam is the Canadian market leader in analytical services and solutions to the energy, environmental, food and DNA industries and a member of the Bureau Veritas Group of companies – a world leader in testing, inspection and certification services. We support critical decisions made by our customers through the application of rigorous science and the knowledge and expertise of our over 2500 employees.

For more information please contact:

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