PENTAIR
HAFFMANS

COMPOSITION ANALYSIS SERVICE FOR BIOGAS AND BIOMETHANE PRODUCTION

The high cost of biogas impurity

The composition of biogas changes over time and can vary depending on the type of feedstock used, making gas analysis important to optimize your digestor operations or maximize biomethane production and protect your biogas upgrading system against damage.

If the methane level of your biogas is too low, or the content of pollutants increases, you may need to use extra energy to upgrade the biogas into biomethane, which can be costly, and in some cases, your system can be damaged.

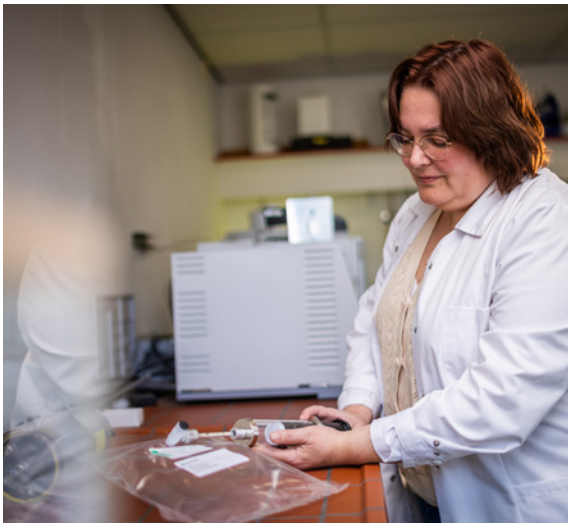
Protect your installation

Gas analysis helps you to get the best value from your biogas production, helps with the steady performance of the biogas upgrading system, and guarantees the quality of what you provide as a heat source, a biofuel, or a renewable energy source.

Gas analysis will also help to identify any potential issues with the digester operations, such as feedstock imbalance or insufficient retention time, that could affect biogas and/or biomethane production and quality.

Monitoring the biogas composition regularly enables you to make informed decisions about feedstock, perform program checks of drifting analysis systems, and help ensure the best return on your investment.

- **Impure biogas can damage your installation.**
- **If your gas is polluted, this can add to OPEX.**
- **Polluted biogas causes emissions.**



PENTAIR HAFFMANS CAS

How gas analysis works

The Pentair Haffmans Composition Analysis Service (CAS) analyzes both biogas and biomethane.

When Pentair Haffmans receives an order, specially protected sample bags, and sampling instructions are sent to the customer. The customer fills the sample bags according to the instructions and returns the bags to us.

An objective analysis report is prepared and returned to the customer within five working days. This report specifies the measured concentrations in the customer's sample.

When contaminants are found or methane levels are too low, you can count on Pentair to highlight the issue and find a solution. As a biogas upgrading solution provider and with 90 years of CO_2 capture and recovery expertise, trust us to help boost your biogas production efficiencies.

Pentair Haffmans CAS helps with:

- Product control through the detection of unexpected compounds.
- Enables the recovery of food-grade quality CO_2 from biogas upgrading.
- Assists in monitoring the performance of biogas digestor or biogas upgrading plant.
- Helps in reducing instances of plant downtime due to contaminants.
- Provides access to Pentair biogas and CO_2 recovery expertise.

Our comprehensive gas analysis tests for:

- Methane
- Sulphurous compounds
- Ketones
- Terpenes
- BTEX
- Siloxanes
- Esters, Aldehydes, Alcohols
- Other organic components

Gas analysis use cases

- Inlet and outlet biogas generation
- Biogas-to-biomethane generation
- Bioethanol
- Industrial CO_2 recovery gas analysis
- Biofuels: Bio-CNG and Bio-LNG
- CO_2 from fermentation and breweries and soft drinks

Gas samples can be taken at the gas source of the end product and all points in between.

Have your gas analyzed
Contact us: CASlab@pentair.com

LEARN MORE

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