Biogas & Biomethane Purification

Puragen

CHP engine protection and biogas upgrading

We deliver biogas purification systems carefully tailored to the specifications of CHP engine manufacturers and biomethane OEMs and operators.

Purifying raw biogas - from AD sites, wastewater treatment plants and landfills - improves its quality as a fuel by removing harmful contaminants, including siloxanes that cause silica buildup and corrosion in CHP (combined heat & power) engines.

Raw biogas can also be upgraded into biomethane for gas-to-grid (G2G) injection, and also for use as a sustainable vehicle fuel, where strict purity standards require effective contaminant removal to ensure compliance.

Targeted contaminant removal

Hydrogen sulfide

A corrosive, toxic and flammable gas that damages components.

Volatile organic compounds (VOCs)

Removal of a range of VOCs, including siloxanes, pinene and limonene, that can cause abrasive deposits on hot surfaces within engines that reduce combustion efficiency and can lead to component failure.

Odorous compounds

Removal of a range of odour-causing contaminants, including ammonia (NH_3), formed in the feedstock handling process and within anaerobic digestion processes.

Activated carbon technologies

Our high-capacity FiltraPure® media and VOCSorber® mobile carbon filtration units maintain low-pressure drop, high flow rates and extended media life to ensure optimal biogas quality, for maximum CHP engine efficiency and biomethane purity.

Activated Carbon (large-size GAC)

Provides high-capacity adsorption of VOCs for continuous biogas purification

Extruded Pellets

Optimal pressure drop and contact time for gas phase applications

Impregnated Carbons

Grades of GAC and pellets are available, impregnated with functional chemicals, specifically targeting inorganic contaminants like H_2S and NH_3

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Mobile filters

VOCSorber® 2-SX

- Maximum Flow Rate (m3/hr) - 2,500
- Typical Application - Smaller scale biogas and odour controil

VOCSorber® 5

- Maximum Flow Rate (m3/hr) - 3,000
- Typical Application - Biogas and odour control

VOCSorber® 30

- Maximum Flow Rate (m3/hr) -6,000
- Typical Application - Larger scale biogas and landfill gas

Services

Engineering Solutions

We can provide full-service installation support to integrate activated carbon systems with your existing infrastructure and operations.

Reactivation

Our award-winning reactivation facility provides a closed-loop purification cycle that delivers cost efficiency, quality control and reduced carbon footprint by more than 90%.

Site Services

We manage the full carbon journey, from carbon exchange and reactivation to maintenance and system optimisation. Hassle-free, efficient filtration, tailored to your operation.

Talk to a purification expert today

Do you already oversee purification systems? Or are you just starting your purification journey? Either way, we can help—from product selection to system design to ongoing maintenance and optimisation.

Get in touch @

puragen.com

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