



FOCUSED ON CLEAN ENERGY

Siloxane contamination removal
solutions for biogas applications



ENGINEERING YOUR SUCCESS.

FOCUSED ON SUSTAINABILITY

The global biogas market is expected to be worth almost \$30 billion annually by 2022. It is quickly becoming a popular renewable energy source with growth being fuelled by its high efficiency, cost effectiveness and its ability to reduce greenhouse gas emissions.


The principle applications for biogas include electricity generation using gas engines or turbines and biomethane production both of which mean that gas purity and quality is vital.

Siloxanes are widely used as additives to various products including cosmetics, plastics, lubricants and even foodstuffs. The waste from these products ends up in landfills, sewage plants and biogas plants. When the gas produced from these plants is used to power biogas-to-energy units, siloxane contamination occurs.

Siloxane contamination causes severe damage to engines and turbines resulting in decreased efficiency, increased noxious gas emissions, costly repairs and a significant reduction in energy production.

Parker has the solution. We are the world leader in regenerative siloxane removal technology, with over 150 installations around the globe, providing complete protection for gas engines, gas turbines and natural gas pipelines. It is an environmentally friendly solution that enables you to operate safely and efficiently, with maximised up-time and increased profitability.



The image shows two large, cylindrical industrial towers with a ribbed, metallic surface. They are connected by a horizontal pipe. The towers are set against a clear blue sky. In the foreground, there are bare trees and a street lamp. The image is framed by yellow decorative elements in the top right and bottom left corners.

“Regenerative siloxane removal systems
are the most cost effective solution for our
gas contamination issues”

Operations Manager, UK Utilities Company

FOCUSED ON PROFITABLE SOLUTIONS

BioEnergy SRS (Siloxane Removal System)

The Parker BioEnergy SRS is an advanced siloxane removal system installed in the biogas supply line of a gas-to-energy installation. By tackling the cause at the source, it ensures the removal of up to 98% of siloxanes before they reach the engine. Compact, durable and using advanced Parker technology, it is engineered to enable you to enjoy the benefits of biogas in full – with extended equipment lifetime, efficient operation and reduced maintenance, downtime and cost.

Advanced media technology - exclusive to Parker

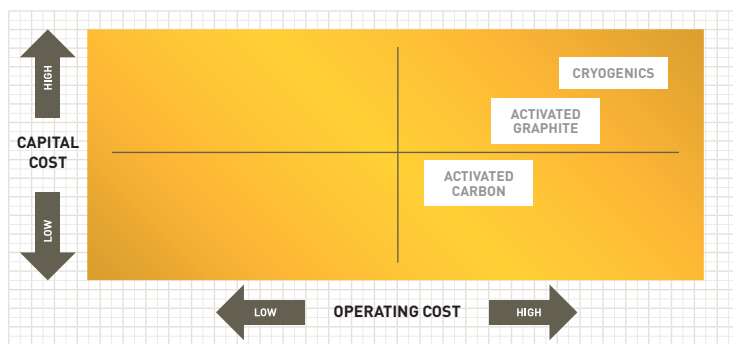
The secret of the Parker BioEnergy SRS is the specially designed adsorbent media which has many advantages over competing technologies:

- Operates at low temperature requiring only a small amount of heat energy for regeneration
- Extremely low pressure drop, no need for additional gas compression
- Made from hard-wearing, non-toxic polymer which can last several years before change-out
- Hydrophobic property increases siloxane adsorption capacity
- Installed in cassettes for easy removal and replacement – no cranes or scaffolding required
- No requirement for hazardous waste disposal of contaminated media
- High affinity for siloxane removal - up to 10 times more adsorbent than Activated Carbon





This special media is utilised within the Parker BioEnergy SRS to provide a self-cleaning, packaged siloxane removal system which offers rapid payback in comparison with other technologies (see below).



BENEFITS

Maximum plant efficiency

- Offers complete protection from contamination, allowing engines to work to their full potential
- Can reduce annual engine maintenance costs by up to 70%
- Provides cost-effective, bulk contamination removal for gas-to-grid applications

Lowest lifetime cost

- Low power consumption and minimal maintenance keeps OPEX down
- Return on Investment can be achieved in as little as 12 months

Easy of use

- Compact design with small footprint for ease of installation and reduced pipework
- Built-In Uninterruptible Power Supply provides battery back-up for power outs
- Microprocessor controlled, automatic operation requiring minimal user intervention
- Extensive range of remote communication and telemetry monitoring options

Guaranteed peace of mind

- No engine warranty issues
- No worries over optimal time for media change

Safe

- Microprocessor Control provides safe, automatic operation within programmable parameters
- Multiple fail safe detection features
- Non-toxic media for safe handling at installation and change-out





FOCUSED ON WORKING TOGETHER

Parker is your single source for advanced gas treatment technologies and systems that deliver first class quality, together with global support and availability.

Through our three specialist brands, concentrated on technological expertise and innovation, we help customers to meet sustainability targets and enjoy dramatically reduced running costs over the product lifetime, across a world of applications. All with the quality guarantee and peace of mind that comes with the industry leader.

**FOR MORE INFORMATION
OR A DETAILED DISCUSSION
ABOUT YOUR SPECIFIC
REQUIREMENTS PLEASE
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**FOCUSED ON
FILTRATION AND
SEPARATION**



**FOCUSED ON
REFRIGERATION
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**FOCUSED ON
ADSORPTION**



To find out more about Parker compressed air and gas treatments, visit solutions.parker.com/focusedonCAGT

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US Product Information Centre

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www.parker.com/gsf

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