

Biogasclean QSR - biological removal of H₂S from biogas

**BIO
GASCLEAN**

the key to efficient
and successful
utilization of biogas



Key features of **Biogasclean QSR**:

- **The PTU** – the Process Technique Unit - is the machine room and contains PLC controller board, circulation pump, air blower, valves, flow meters and – if required – also gas detector system and heating system installed either on a skid or in a custom built fiberglass container or a modified shipping container.
- **The scrubber tank** is manufactured in high quality fiberglass and supplied with a **grating** so it is possible to inspect the tank underneath the packing media. The tank is supplied with **ladder and handrail** and - if required – also with insulation. The tank is **so strong that it can be filled with water**. We manufacture fiberglass tanks in several countries to reduce transportation costs.
- **The packing media** is manufactured in plastic and can be cleaned inside the tank with the **QSR® - Quick Sludge Removal - system**. This will reduce downtime and increase revenues.
- **Safety**; injection of air into biogas is only safe with a reliable control system. The PLC receives signals from an oxygen meter and will reduce or stop air injection in case the oxygen content in the clean gas gets too high. If the PTU is enclosed the safety system will remove the ignition source by cutting the power supply if the gas detector in the PTU should measure above 25% of the Lower Explosive Level (LEL).

Plant: *Thai Beverage Energy Co. Ltd Thailand*

Capacity: *600 m³/h
8,000 ppm H₂S*



Plant: Iglsoe Agro & Biogas
Denmark

Capacity: 650 m³/h
(off-gas from
upgrading)
2,220 ppm H₂S



- **Automatic operation;** the system is automatically controlled by the PLC controller board which reduces the risk for manual errors and operation problems. The main function is to provide safe, optimal and stable conditions for the biological process. The signals can be made available in the control room.

- **Low operating costs;** the system uses no chemicals and has a very low electrical consumption. In many projects we use treated water from an anaerobic digester or an aeration pond as scrubber liquid and nutrient source. This is cheaper than soft water and industrial fertilizer. To prevent clogging inside the scrubber tank the water is first pre-treated in the **MUW® - Make Up Water - system.**

- **Guaranteed performance;** we provide performance guarantees on all projects.

- **Tailor made;** we design each system to the project specific biogas flow and H₂S load.

Biogasclean A/S

Biogasclean is specialized in biological desulfurization of biogas without the use of chemicals. We develop, manufacture and supply fully automated gas cleaning systems for H₂S removal combining low operating costs with high availability. Our track record comprises mid 2018 more than 235 plants in operation or under construction in 40 countries. Biogasclean supplies clean gas to more than 540 MW gas engines and boilers and removes sulfur from biogas upgrading units.



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