

Biogas



Biogas, after proper treatment, can be converted into electricity and upgraded to biomethane.

Biogas technology is the conversion of organic substances to methane as fuel and valuable fertilizer from available resources that otherwise would go unused.

Biomethane is produced from Biogas, upgrading it by different technologies (Membranes, scrubbers, etc). It can be used as biofuel or injected in the gas grid for common use. Our dual flares are specially designed for this field, in which is necessary to burn variable flows of gas of different composition. The dual flare is able to burn biogas as well as biomethane using a unique flare.

Biogas is usually produced by anaerobic digestion where the digester is lately connected to a system to generate energy like Cogeneration or Combined Heat and Power (CHP) systems.

As long as the CHP system is running and burning the biogas there is no release of unburned gas to the atmosphere. However, these systems need to be stopped from time to time due to breakdowns or preventive maintenance. In those cases where the biogas production cannot be stopped and the gas has to be burned in an enclosed combustion flares. These biogas flares are also commonly called medium temperature flares, due to its burning temperature above 800° C.

The required type of flare in a Biogas project depends on customer requirements and local regulations. Then the combustion might require a high temperature flare with temperatures above 1'000 °C.

Raw biogas, as directly produced in the digester, cannot be used in the CHP system without treatment. Gas treatment includes cooling to

reduce the moisture content, removal of oxidative substances like H₂S and elimination of siloxanes. A proper removal of siloxanes is critical for the generation of energy since the combustion of gas with siloxanes convert it in silicon dioxide, an abrasive substance that can block and damage gas engines as sand would do.

Hofstetter Gastechnik AG designs and manufactures a wide range of products for proper treatment and utilization of biogas.

Products

Emergency flare (EMF)

High temperature flare (HTF)

Medium temperature flares (MTF)

Biogas - Images



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