

Modular Gas Plants for Landfill applications

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Ready to use Modular Gas Plant for Landfill gas extraction





MGP

MODULAR GAS PLANT

KEY FEATURES

- Burns safely and efficiently methane content of 30 -50 (% Vol)
- o High-temperature combustion
- High safety standard
- Short installation time
- o Minimal maintenance requirements
- o Compact, safe and inexpensive

GENERAL SPECIFICATIONS

Gas Flow Rate : 40...5'000 Nm³/h

Burner Capacity upto : 30'000 kW

Blower pressure rise : 105...180 mbar

Methane Concentration : 30 - 50 vol.%

Combustion Temperature : 1'000...1'200 °C

Residence time : > 0.3 s

Turn down ratio : 1:5

Expected sound level at : < 69 dB (A)

full load (at 15 m distance and 2 m height)

Modular gas plants are compact units mounted on a robust skid that are ready for immediate use in landfills. The basic module comprehends a moisture knock-out pot, a blower, a flare with the latest safety devices and a completely

automatic control system with PLC.

"MGP" (Modular gas plant)

It is the basic modular unit designed to control emissions to limits in compliance with current legislation (TA-Luft), gas is burned in high temperature flare between 1'000 to 1'200° C with minimum retention time of 0,3 seconds and a burning efficiency of 99,99%.

"MGP-UT" (Modular plant with gas utilization)

These modular plants are designed to

be installed in landfills where the gas is intended to be utilized in combined heat and power (CHP) engines or boilers. The blower provides a higher supply pressure than the conventional MGP and the system regulates the utilization of the gas in the CHP and burn the exceeding gas. These models can also be provided with gas treatment system to remove particles, moisture, Siloxanes or H2S from the landfill gas.

Depending on customer's requirement each model can be fitted with a frequency inverter, a gas analyzer, a gas flow meter, frost protection, container or data management system with telemetry to supervise and record all the performance parameters of the plant.

OPTIONS

- Higher blower pressure (for gas utilisation)
- o Raw & Flue gas analyser
- Telemetry
- Visual data managenemt
- Containerized unit
- Turn down ration (1:10)

Note: More options available on request



SAFETY FEATURES

- EEx motor
- Flame arrester
- Slum shut valve
- Burner control device with UV-detection

SITE PREPARATIONS

- Pre-dewatering
- Foundation
- Electricity supply
- o Pipe line connection
- Condensate disposal







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