

GAS CHILLER GC



- Gas chiller for the dehumidification of biogas, sewage gas and landfill gas
- Available in compact, split and special designs
- Condensate removal via siphon or pressure-independent with pump
- Improved efficiency and protection for gas engines and CHP stations
- Simple operation
- Components in contact with gas made from 11.4404/1.4571 stainless steel
- Optionally with reheating
- Optional with pre-chilling stage for energy savings

ENVIRONTEC'S GAS DEHUMIDIFICATION

Biogas, sewage gas and landfill gas always contain water vapour in an unsaturated state. During combustion, the water vapour results in considerable corrosion damages to the gas engines and turbines. Malfunctions caused by these damages lead to significant downtimes and high repair costs.

The use of a gas dehumidification system can considerably extend the engines' service life and notably reduce the maintenance costs.

The condensation of the water vapour in the gas is caused by temperature reduction which in turn results in a dehumidification. The condensate is separated out in a trap installed after the chiller and removed via a siphon. The dehumidification simultaneously results in an increased efficiency. The EnvironTec gas dehumidification process presents a cost-effective solution in this context.

The gas dehumidification modules are available in performance ranges offering gas flow rates from 100 to 6000 Nm³/h. Special designs are also available on request.

Additional application examples are configurations in combination with a post-heating stage ahead of active carbon filters and feeding into a gas pipeline to prevent subsequent condensation.

For additional energy savings the gas dehumidification can be enhanced with an extension module comprising an air cooler and a tubular heat exchanger. ATEX regulations.

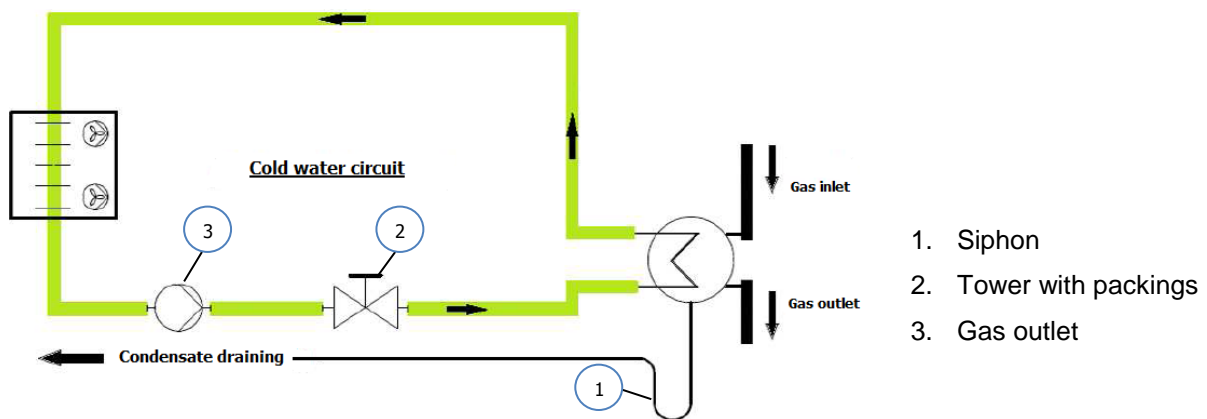
APPLICATION AREAS

- Communal or industrial sewage treatment plants
- Chemical industry
- Paper industry
- Landfill sites
- Food industry
- Agriculture

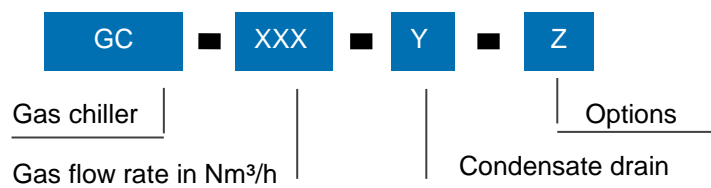
DESIGN PARAMETERS

- Gas flow rate: 10 – 6.000 m³/h
- H₂S content: up to 20,000 ppm (2.0 vol%)
- Gas temperature at inlet: up to 105 °C
- Gas temperature at outlet: down to 3-5 °C
- Gas pressure at inlet: -100 to +500 mbar
- Ambient temperature: -20°C to +45°C

P & I



TYPE SPECIFICATION



XXX 100 Nm³/h to 6000



S_siphon
A_automatic (magnetic valve +
condensate pump)



NW_reheating
VK_pre-cooling stage
SP_split design
C_container design