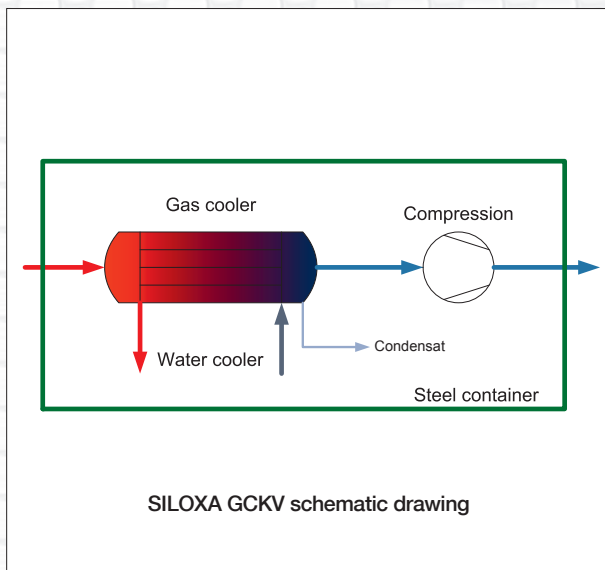


SILOXA container-based gas supply system for biogas with gas drying module, gas compression module and controller, GCKV model



Product description

The ingenious GCKV concept is based on consistent bundling of all key functional units that are needed to reliably supply the gas engines with the biogas produced. All components such as the gas warning system for monitoring the container atmosphere, the gas cooler, the condensate trap, the liquid coolant circuit, the water cooler and the compressor are housed in a modified sea container specially equipped for use in a biogas plant. A microprocessor control system handles the monitoring and control of all integrated assemblies. The all-in-one nature of the GCKV means the addition of only one more compact unit to the adjacent assemblies of the biogas plant, gas storage tank and gas utilisation system.

The GCKV comes in various performance classes with gas flow rates ranging from 180 to 2,100 Nm³/h, which means the right system is always available for every plant.

Combining the gas supply technology in a central system is advantageous because it reduces the investment volume for the operator, simplifies planning, guarantees reliable operation and saves on maintenance later. The unit is fully assembled in the factory by SILOXA engineers.

Sizes/system components

- A total of 12 performance classes with gas flow rates ranging from 180 to 2,100 Nm³/h
- All components are housed in 3,050 mm-long containers (GCKV 180) or 6,100 mm-long containers (GCKV 260 to GCKV 2100)

Design features (basic version)

- Steel container
- Ambient air monitoring
- Gas cooler
- Water cooler
- Liquid coolant circuit
- Condensate trap
- Cold insulation
- Compressor
- Control cabinet
- Factory assembly
- Technical documentation

Options

- Activated carbon adsorber 1 – MAKKA 700 MODEL, including pipework for the first activated carbon filter
- Activated carbon adsorber 2 – MAKKA 700 MODEL, including pipework for the second activated carbon filter (use of one filter while the other is changed)
- Autonomous hot water supply for heating
- Biogas analysis
- Temperature differential control
- Compressed air supply
- E, I&C/PLC controller
- Frequency converter
- Gas heating
- H₂S online analysis
- Assembly and commissioning
- Smoke detector
- Pipe with butterfly valve extending to 10 cm above ground level
- Pipe with butterfly valve, 10 cm above ground level
- Oxygen monitoring of the biogas
- Sound and heat insulation
- TÜV certification of the pipework
- Compression by 200 or 280 mbar
- Biogas flow rate measurement
- Pre-cooling
- Weld neck flange instead of loose flange



SILOXA
Take out what doesn't belong.

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Safety features

- All the components that come into contact with gas are electrostatically dissipative
- The system complies with the ATEX requirements for using biogas and with TRBS 2153 (technical rules for operational safety: prevention of ignition hazards due to electrostatic charges)

Relevance for the gas engine system

- No condensation of water in sensitive parts of the gas engine
- Dry gas improves the availability of the CHP
- Optimises the efficiency of the CHP

Consumption costs

- The systems are designed for optimum efficiency. This reduces the operating costs of the system to a minimum.

Service

- As well as installation, SILOXA also offers full regular maintenance and supply of spare parts for the GCKV (for further information, see service datasheet).

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