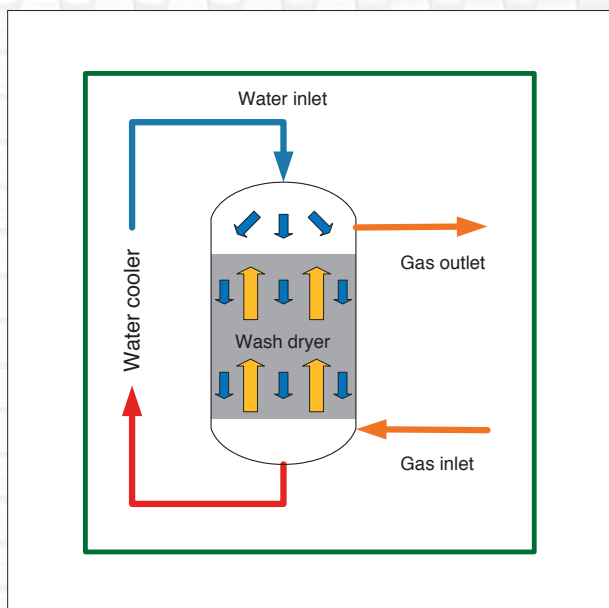


SILOXA gas wash dryer for biogas, landfill gas and sewage gas, GWK model



Product description

The SILOXA gas wash dryer is a compact gas conditioning module for drying biogas, landfill gas and sewage gas and for removing other harmful gas contaminants.

The gas wash dryer unit is supplied complete with packed column counter current unit and full cooling unit. All components are mounted on a steel base frame, along with their pipes and electrical cables. All system components that perform the cooling and supply the cooling agent are properly insulated to prevent the formation of water condensation. The device features an electric microprocessor control system that ensures automatic, reliable and safe operation of the wash dryer.

In the gas wash dryer, the gas, which is saturated with water vapour, flows upwards through the packed column in the opposite direction to the cold water. In this packing material layer, intensive heat and substance exchange takes place between the gas and the cold water. The gas cools down and its oversaturated water vapour content condenses directly into the downwards-flowing washing water. Solid and liquid gas contaminants (dust, particles) are completely washed out during this process and gaseous contaminants (H_2S , ammonia) are reduced according to their water solubility.

Gas wash drying

Using this process offers clear advantages:

- Efficient drying of the biogas, landfill gas and/or sewage gas
- Measurable improvement in gas quality
- Robust, low-maintenance technology
- Minimal pressure loss
- Unaffected by load fluctuations

Sizes/system components

SILOXA's GWK gas wash dryers are available as standard versions for three performance classes of gas utilisation systems. If required, however, systems are also available for almost any other gas flow rate.

Model	Gas flow rate	Output of gas utilisation system at 60 % CH_4
GWK 180	180 Nm^3/h	up to approx. 350 kW
GWK 320	181 to 320 Nm^3/h	up to approx. 550 kW
GWK 500	321 to 500 Nm^3/h	up to approx. 1050 kW

Control

The GWK gas wash dryer from SILOXA is safe and convenient to operate. The central control component is the control panel of the water cooler.

Design features (basic version)

- Frame and base plate
- Gas drying system
- Water cooler
- Condensate trap
- Control cabinet
- Cold insulation
- Factory assembly
- Technical documentation



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Options

- Version for indoor installation
- Autonomous hot water supply for heating
- Explosion-proof design
- Gas heating
- Machine container, 10 foot
- Assembly and commissioning
- Compressor

Safety features

- All components are gas-tight. The system therefore conforms to the ATEX requirements for using biogas.

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 GKW. For further information, see service datasheet.

