AAT Dry gas storage

Wind and weather proof storage of biogas.
High snow loads and wind loads up to 300 km/h.

The AAT Dry gas storage is a closed, pressureless membrane storage in a protection housing.

The protection housing is made of e.g. steel frames with corrugated sheeting in the form of a standing cylinder. It is only used as protection and suspension of the installed membrane. Through the segmental construction the required storage size can be adjusted in diameter, height and model (steel, steel-enamel, concrete, system building construction) to the local circumstances.

The gas is stored pressureless in a membrane which is advantageous compared to traditional systems concerning life span, safety, investment costs and operation costs. The membrane storage can also be performed individual in form and size so that an installation in various housings are possible.

The gas storage tank which is situated between the digester and the consumer is installed to store the continuously produced biogas. The surrounding free space between protection housing and membrane is used for aeration and monitoring.

After passing the safety equipment the produced gas flows into the storage tank through a connecting pipe, whereby the membrane is filled up. Withdrawal from the membrane is via blowers. This is used for transport and to increase the gas pressure and will be controlled depending on the consumer.

The optical control of the filling level is done by a sinker led in a glass tube. Additonally there is an analogue signal as well as two switchpoints available for the system control. The safety equipment is situated between filling and withdrawal pipes. It is a combination of a condensate trap, hydraulic positive and negative pressure safety device, gravel filter and valves. The pressure relief pipeline is conducted over the housing roof. Additionally a mechanical overfill safety device with lever and wire rope can be installed which will lead off the gas over the pressure relief pipeline.

Advantages:
✓ Low investment costs through segmental construction system
✓ Long life span through gentle operation
✓ Low operation and maintenance costs
✓ No corrosion damage since it is a closed system
✓ The gas blower is only in operation when withdrawing gas.
✓ High slow load
✓ for extreme wind power