

Extract

Purify

Store

Utilise

Let's make it possible



Gas Storage Datasheets

ENNOX
bioaas competence made in austria



Double Membrane Gas Holder NOXstore DM

For temporary buffering due to fluctuations in gas production, storage of the produced biogas is required.

The holder is made up of two spherical shaped polymer membranes (other forms are also possible), lying one inside the other. The external membrane is maintained in a stable form with the use of an air blower. The external membrane then serves as protector for the inner membrane against the influence of environmental factors such as wind or snow.

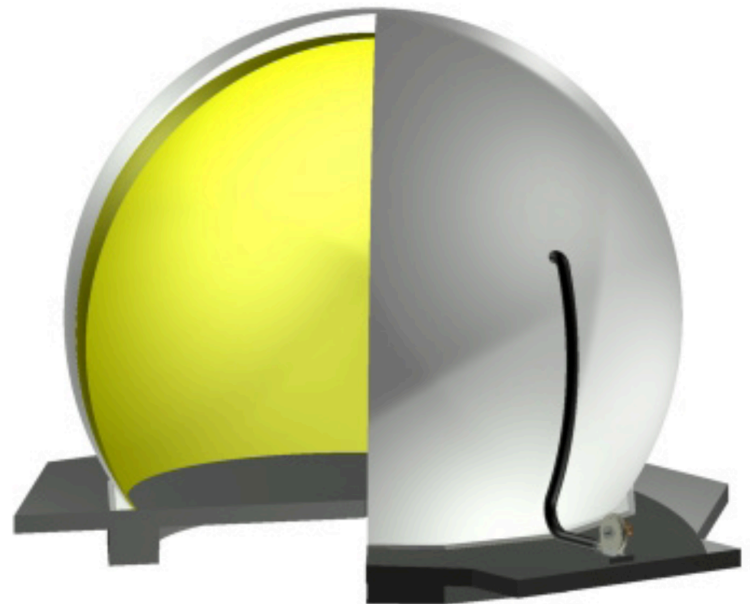
The gas is stored within the inner membrane. The pressure generated by the blower is applied to the outside surface of the inner membrane thus maintaining the system pressure from the biogas reactor. The movement of the inner membrane during inflation and deflation is recorded either with a cabled sensor or radar. The information is then converted into a level indication signal and sent to a central control system.

The regulation of the supporting air resulting in the stability of the external membrane is controlled by a standard pressure maintaining valve. An over pressure valve is responsible for the safety within the inner membrane.

Double membrane gasholders are available in various sizes, pressure classes and construction types. The design and specification of such systems is carried out according to the individual application requirements.

Double Membrane Gas Holder NOXstore DM Technical Data

Specified and manufactured according to the actual application parameters.



Highlights

- Robust design with long lifetime
- Various storage forms and sizes up to approximately 5000 m³
- External membrane with inspection window
- Strong and resistant membrane material
- Short assembly time
- Supplied with hydraulic pressure maintaining valve as standard

Options

- Colour according to customer requirements
- External membrane can be customised (i.e. with logo)
- Technical calculations and specification of the storage construction
- Can suit various system pressures
- Various systems for level measurement, ATEX upon request



Low pressure gas holder NOXstore

For the temporary storage of bio or sewage gas in a zero pressure environment conforming to the technical norms (DVGW, ÖWAV, SUVA, safety regulations for agricultural biogas systems SWA). The gas holders are available in various storage capacities ranging from 10 – 7,500m³.

The storage of the biogas/sewage gas is achieved with a cylindrical gas bag which is freely hung in a building or silo. The silo serves, in this case, as an effective supporting and protective construction. The outside surface of the silo can be powder coated in any colour specified by the customer.

The gas bag is manufactured from a high quality polyester membrane (non-flammable, fungus repellent and methane/UV resistant) utilising the most modern frequency welding techniques.

We can provide, according to the most stringent safety requirements, various additional systems for level indication, hydraulic and mechanical pressure regulation, explosion proof measuring systems as well as pressure boosting stations.

Ennox offers not only the design, construction and installation of the gas storage system, but also the subsequent on-going inspection and maintenance of the system by fully qualified and authorised personnel.

Low Pressure Gas Holder NOXstore Technical Data

Specified and manufactured according to the actual application parameters.



Highlights

- Robust design with long lifetime
- Gas balloon can be replaced
- Short assembly time, low maintenance
- Equipped with hydraulic under/over pressure safety system as standard
- Existing buildings (concrete silos) can be utilised
- Available in various sizes

Options

- Colour as per customer specification
- Various level measurement systems, ATEX if required
- Blower station EX Zone 1 available
- Additional mechanical over pressure device as an option
- Extensive range of accessories (condensate drain, gravel pot, measuring systems)
- Maintenance and periodic service by fully trained and authorised personnel if required



Gas Blower RAV

Digesters and biogas reactors are normally designed and built to cover relatively low system pressures due to cost implications. In order to carry out effective cleaning of the system, operation of a consumer or transfer of the biogas, it is necessary to increase the operating pressure in the pipework.

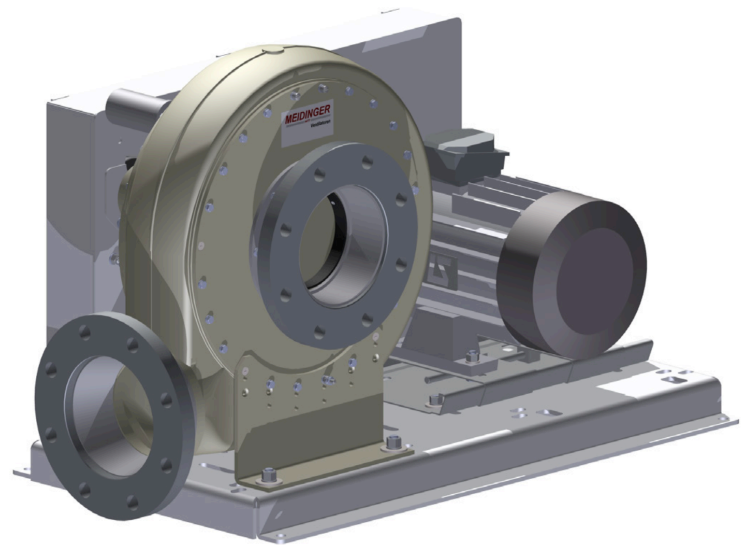
We supply our customers with radial ventilators for the increase in system operating pressure, either as an individual unit or as a complete blower station with all internal pipework and instrumentation.

The ventilators can be either directly driven or equipped with a belt drive. They are suitable for ATEX zone 1. The flowrate can be infinitely adjusted by using an optional frequency inverter.

The radial ventilators are suitable for flow rates up to 2000 m³/h and a pressure increase up to 160 mbar (or 320 mbar with a multi-phase system).

Gas Blower RAV Technical Data

Specified and manufactured according to the actual application parameters.



Highlights

- Suitable for ATEX Ex- Zone 1
- Flat characteristic curves guarantee defined operating levels
- Robust design with long lifetime
- Low maintenance
- Available for various pressures and flowrates

Options

- Complete blower station with pipework available
- Blower with direct or belt drive
- Multi-phase upon request
- Flowrate regulation with frequency inverter
- Weather and acoustic protection covers