



## Double Membrane Gas Storage Structure

COVERING A GREEN FUTURE



## Double Membrane Gas Storage Structure

The Double Membrane Gas Storage Structure is provided with a statical calculation in accordance with the prescribed European building standards. It is constructed and delivered according to national applicable laws, technical standards and requirements. This guarantees a safe, durable and reliable operation.

- The statical calculation applies to the complete membrane system:
  - outer and inner membrane
  - centre column including the high point ring for beltsystem
  - beltsystem including tensioning devices at clamping edge
- Use in all wind and snow load zones
- Different material qualities - from 800 up to 1300 g/m<sup>2</sup> - according to the structural report for wind load zones I - IV
- Gas storage volume in accordance with customer request
- Statically proven connection to the tank wall with our clamping system
- Computerized industrial high-frequency welding
- Self heating over and under pressure valve available
- Quality control by providing evidence of manufacturing protocols and test certificates

The membranes are on offer to almost all available tanks up to a diameter of 40 meters. The standard operating pressures are 0 - 5 mbar and a potential undue pressure situation of up to -1mbar is permissible. In case of individual membrane solutions a higher operating pressure is possible.

### TECHNICAL DATA

- Available up to ø 40 meters
- 100% computerized industrial high-frequency welding
- Operating pressure up to 20 mbar
- Lowest possible methane gas permeability
- Statical calculation applied to complete membrane system
- Worldwide installation



## Our concept

Relevant regional building codes stipulate that structural calculations are required for all building constructions.

These principles of structural analysis are based, depending on the tank's dimensions, on the different qualities of the membranes which ensure a safe transfer of such forces along the edge of the silo on the basis of their technical specifications.

Determining and calculating the shape of the covering and handling their ready-for-use fabrication are further decisive factors for fulfilling the official requirements. Computer-aided programmes calculate the ideal shapes for overlaying forces.

High-frequency welded seams having a width of 4 to 8 cm ensure the requisite transfer of forces in the surface areas and along the edge of the tank.

## Product and service

Our Double Membrane Gas Storage Structures are used for anaerobic digestion installations in the agricultural market as well as for industrial wastewater treatment plants.

The product is a complete membrane structure including technical components, such as: a carrying substructure, supporting air blower(s), attachment materials and a protective device for overpressure and under pressure.

Our experienced installation and service crew will install the products competently.