

Ecomembrane s.r.l (Italy) have been developing the application of plastic membranes for use in various industries for more than 20 years.

Large production facilities equipped with 'state of the art' automatic machinery now manufacture membrane products, which have been specifically developed to provide cost effective and environmentally friendly solutions for biogas collection and utilisation.

## Gas holders



Membrane Gas Holders



Fitted directly to the top of Anaerobic Digester tanks



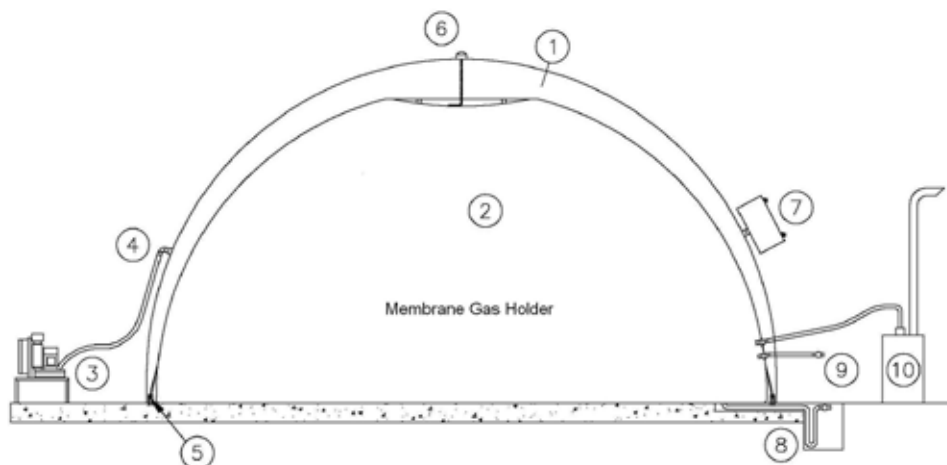
Replacement of existing steel Gas Bells



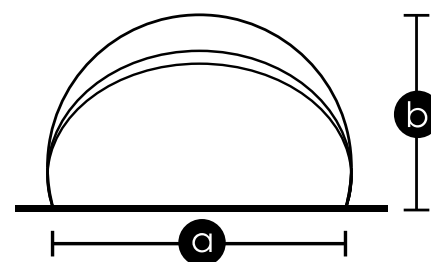
Low pressure floating systems for tanks and lagoons

## Main features

- 1 – Air Chamber
- 2 – Biogas Chamber
- 3 – Air Blower Unit
- 4 – Air Inlet
- 5 – Anchoring System
- 6 – Level Sensor (4-20mA)
- 7 – Pressure Regulating Valve
- 8 – Condensate Drain
- 9 – Gas Inlet/Outlet Pipe
- 10 - Gas Safety Relief Valve



Volume Capacity:	From 10 to 5000 m <sup>3</sup> with pressures ranging from 20 – 50mbar depending on the size.
Safety:	The patented 2 chamber and 3 overlapping membrane system completely divides the biogas from the air avoiding any potential explosive atmospheres.
Raw materials:	Are carefully selected and tested in-house before being used in order to warrant the product for a long working life without problems.
Low energy usage:	The air blower only runs when gas is being discharged from the gasholder requiring a fractional kW motor to maintain system pressure.
Half sphere shape:	Provides for constant and repeatable movements of the gas bag and consistency of level transmitters for control.
Civil requirements:	Simple flat concrete bases with cast-in anchor brackets. Above ground gas inlet / outlet pipework can be facilitated.
Easy to operate:	The gasholder is fully automated and requires minimal visual maintenance.
Power Failure:	The 2 membrane design enables the outer Membrane to remain inflated at all times.
Cost:	The capital cost to provide and install a membrane gasholder provides a considerable saving over conventional designs.



m <sup>3</sup>	a	b
10	3,40	2,20
50	5,80	3,40
100	7,30	4,20
300	10,50	5,80
500	12,50	6,80
800	14,60	7,80
1000	16,00	8,40
2000	20,00	10,40
3000	22,90	11,80
4000	25,20	13,00
5000	27,10	13,90

## Replacement of existing steel gas bells

Before



The constant pressure membrane gas holders can be specifically designed to replace old or damaged steel bells and mounted directly onto the existing concrete support structure.

After



## Digester tanks



The constant pressure membrane gas holders can be specifically designed to fit directly over anaerobic sludge digester tanks of any shape or size.

## Floating covers



Floating gas storage systems are designed to collect and store low pressure (1-3 mbar). The covers can be made to suit round or rectangular tanks of any size.

## Other products

### Flexible water tanks



The flexible water tank can be provided in any shape or size, they are easily erected, foldable, light and weather / UV resistant. They can be used for water storage in dry areas, fire fighting or as temporary supply points.

### Lagoon liners



A black 1.5mm thick membrane patented sealing system can be provided to easily cover any ground dug basin to provide complete water tightness. The material is totally recyclable and has a UV protection guaranteed of 8yrs.

### Smell retaining covers



Smell stop covers are designed to fit any size and shape of tank and are used to retain sludge odours and gases. The membrane materials are resistant to acids and the weather. Rainwater drainage systems can also be included.

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