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 m³ with pressures ranging from 20 – 50 mbar 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.

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Replacement of existing steel gas bells

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.

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.