



Gas Holders

Sewage Treatment Plants

Industrial Waste

Farm Waste

- No Maintenance
- Simple Installation
- Low Running Costs
- SCADA Interface
- Lightning Masts

Double Membrane Gas Holders

Utile have been in partnership with Sattler since 1991 and have an exclusive agreement to supply and install their range of double membrane gas holders throughout the U.K.



Double Membrane Gas Holders

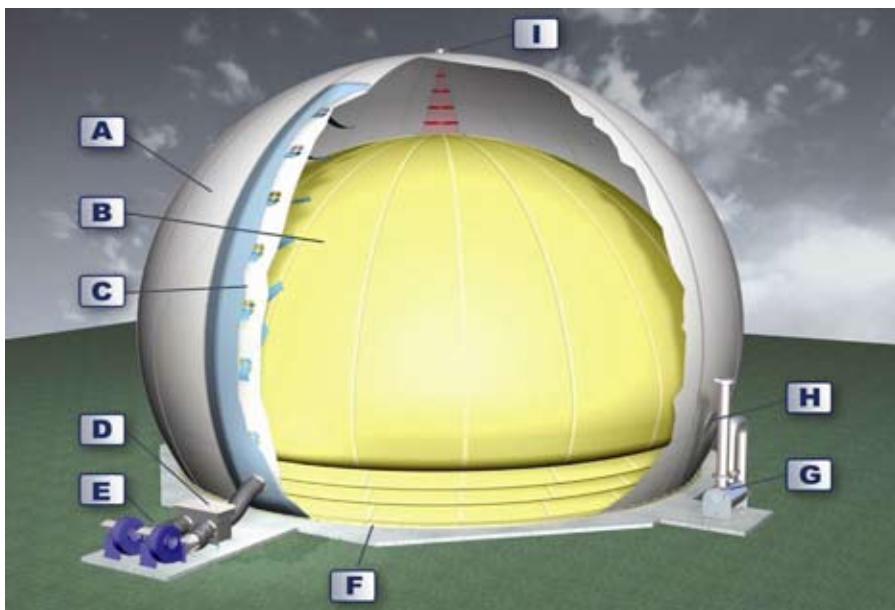
Sattler AG was founded in 1871 in Graz, Austria and to this day remains under private ownership. They are one of the largest producers of textile materials in Europe and are certified to ISO 9002 and ISO 14001.

Sattler operate through a global network of distributors and their position as market leaders in double membrane gas storage technology is a testament to their products quality and reliability. This feature is synonymous with Utile's reputation and coupled with our technical support and industry knowledge offers our customers the ideal solution.

The Sattler double membrane gas storage tank has been developed using the most recent technology for low pressure dry gas storage tanks.

The advantages of this construction are:

- High cost-effectiveness ratio
- Maintenance free set-up
- Unrivalled longevity of the materials
- Short delivery times
- Easy mounting within only a few days
- Immediate availability



- A Outer Membrane
- B Inner Membrane
- C Air Flow System
- D Non Return Valve
- E Radial Ventilator
- F Anchor Ring
- G Safety Valve
- H Inspection Window
- I Ultrasonic Sensor

Principle of Operation

Principle of Operation

The Sattler double membrane biogas storage tank consists of an external membrane which forms the visible outer round contour of the tank, an internal membrane and a bottom membrane which encloses the actual gas space.

A pair of duty and standby blowers provide air to the space between inner and outer membranes to regulate the variation in gas input and gas output, thus keeping the gas pressure inside the tank at a constant level, it also keeps the external membrane rigid protecting it against poor weather conditions. The supporting air in the space between the inner and outer membranes is balanced with the addition of an air damper valve.

As volume of the gas space changes according to the quantity of gas flowing in and out of the tank, a level detection device measures the volume of the inner membrane and relays the information to the control panel to regulate the operation of the plant.

The gas supply and discharge pipes are cast into the concrete foundations before the actual erection of the tank and then hermetically sealed to the bottom membrane on installation. The Sattler double membrane biogas storage tank is then clamped to the concrete foundation by means of an anchor ring.

Materials and Standards

Membranes are highly tear resistant polyester fabrics with a special PVC surface treatment and acrylate varnish. The maximum tensile strength of the PES fabric is tested according to DIN 53 354 and reaches in both the warp and weft direction a minimum of 5.500 N/5 cm width of stripe. In addition, the fabric is highly flame-proof according to DIN 4102-B1. Higher specification fabric is available on request.

The special surface treatment formula guarantees a high resistance against permeability and UV. The fabric is also resistant to the impact of the different biogas ingredients and the white colour of its external membrane has a highly reflective effect.

The construction and dimensions of the Sattler double membrane gas storage tank comply with all relevant standards. The tank is resistant against wind and heavy loads of snow and guarantees safe operation. The temperature resistance ranges from -30°C to +60°C.



Features

Double Membrane Gas Holder Features

- Capacity 50 - 5500m³
- Low capital cost in comparison to steel gas storage tanks
- Maintenance free
- Quick to Install
- Long service life
- Unique membrane fabrics
- Designed to meet customer requirements
- Control systems for plant integration
- ATEX compliant equipment in zoned area
- Designs for raised plinths

