

Double membrane gasholder SGTc-dm

Construction:

The double membrane gas holder consists of three highly resistant fabric-reinforced membranes mounted onto a reinforced concrete slab. The bottom membrane seals the gas chamber against the reinforced concrete foundation.

The flexible inner membrane forms the variable gas chamber with the bottom membrane as well as together with the tight outer membrane, the pressure-regulating chamber, which, due to the connected support-air blower continuously interacts with the gas chamber at stable gas pressure. Membranes are crafted from polyester plastic coated with PVC, UV ray protected, resistant to mould, with high fire resistance, and are coated from both sides by softening finishing material. Inner membrane is additionally protected from biogas compounds influence.

Biogas storage system (gasholder with equipment) has following technological functions:

- biogas flow stabilization;
- biogas storing during maximum biogas production in digesters/reactor;
- pressure stabilization in biogas network.

Technology:

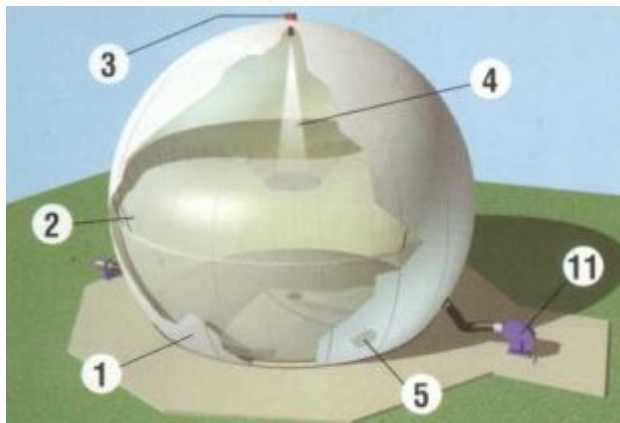
Proper pressure in storage system is achieved by overpressure in membrane interlayer area: between inner and outer layer. Biogas inflows/outflows to/from inner membrane interior by one or two pipelines made from stainless steel.

Thanks to compressed air pressure between layers proper relative pressure in biogas network is achieved.

Air is pumped into gasholder space constantly with simultaneous flexible efflux regulation.

Protection against excess pressure rise in gasholder is provided by protection system.

Gasholder inner membrane level is measured by (4) by rope measurement (optionally by ultrasound probe) - located at the top of outer membrane.



- shear-sphere shape;
- equipped with protection system;
- flexible airflow control;
- long lifetime of membranes;
- volumes from 10 to 15 660m³;
- tank diameter from 3.4 to 35m.



Basic equipment:

- membranes: outer (1), bottom and inner (2),
- biogas holder anchoring system,
- rope measurement (3) with converter,
- glass window (5) for visual control of inner membrane level,
- automatic adjustable airvalve,
- air blower (11),
- air pipelines system,
- local electrical cabinet.

Options:

- additional level measurement,
- second air blower as active reserve or to storage,
- additional glass window in outer membrane,
- biogas pipelines with gasholder foundation,
- gasholder second stage security system: protection against overpressure,
- biogas pressure measurement.

SGTc-dm

Double membrane gasholders series of types:

Model	Volume [m ³]	Diameter [m]	Diameter beside foundation [m]	Height [m]
SGTc-dm 10	10	3.38	3.38	1.69
SGTc-dm 20	20	4.26	4.26	2.13
SGTc-dm 40	40	5.40	5.40	2.70
SGTc-dm 70	70	6.46	6.46	6.46
SGTc-dm 100	100	6.09	5.56	4.57
SGTc-dm 140	140	6.82	6.18	5.11
SGTc-dm 200	200	7.68	6.87	5.76
SGTc-dm 260	260	8.38	7.48	6.29
SGTc-dm 300	300	8.79	7.83	6.59
SGTc-dm 340	340	9.16	8.16	6.87
SGTc-dm 430	430	9.91	8.80	7.43
SGTc-dm 540	540	10.69	9.48	8.02
SGTc-dm 660	660	11.43	10.12	8.57
SGTc-dm 700	700	11.66	10.26	8.74
SGTc-dm 810	810	12.24	10.76	9.18
SGTc-dm 970	970	13.00	11.42	9.75
SGTc-dm 1000	1 000	13.13	11.53	9.85
SGTc-dm 1150	1 150	13.76	12.07	10.32
SGTc-dm 1350	1 350	14.51	12.73	10.88
SGTc-dm 1580	1 580	15.29	13.40	11.47
SGTc-dm 1820	1 820	16.03	14.04	12.02
SGTc-dm 2100	2 100	16.81	14.72	12.61
SGTc-dm 2400	2 400	17.58	15.38	13.18
SGTc-dm 2720	2 720	18.33	16.03	13.75
SGTc-dm 3080	3 080	19.10	16.70	14.33
SGTc-dm 3460	3 460	19.86	17.36	14.89
SGTc-dm 3880	3 880	20.63	18.03	15.47
SGTc-dm 4320	4 320	21.38	18.68	16.04
SGTc-dm 4800	4 800	22.15	19.34	16.61
SGTc-dm 5320	5 320	22.92	20.01	17.19
SGTc-dm 5870	5 870	23.69	20.67	17.76

Additional info about other gasholder volumes or color options
can be acquired by sending request for quotation.

