

**ECOMEMBRANE**  
ENVIRONMENTAL TECHNOLOGY

*CUPOLA M3 Gasholder Dome*



- The constant-pressure CUPOLA M3 is designed to collect and accumulate biogas from directly over anaerobic digesters or sludge holding tanks.
- Membrane made of double-sided PVC coated polyester fiber fabric, UV-microbial-abrasion-biogas resistant, flame retardant B1 according to DIN4102, built with strips of membrane cut;
- Manufacturing: welded with a high frequency electronic welding and shaped to obtain the gas-holder form;
- The welding edges are covered with an Eco-Safe layer of pure PVC that stops every porosity of the fibres to the biogas. The welding process is made following the quality rules of ISO 9001





# CUPOLA M3

## *Gasholder Dome*

- ❖ It is so called because it is made up of two completely separate chambers, an air chamber and a gas chamber. This design avoid any possibility of a gas leakage into an enclosed volume of air and creating an explosive atmosphere. Any gas leakage will flow naturally to atmosphere passing through the free space between the two chambers.
- ❖ Gas leakage in a 2 membrane design passes into the air chamber and is expected to be 'washed' out by the continuous replenishing of the air chamber by the blowers

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# CUPOLA M3

## Gasholder Dome

### MAIN COMPONENTS

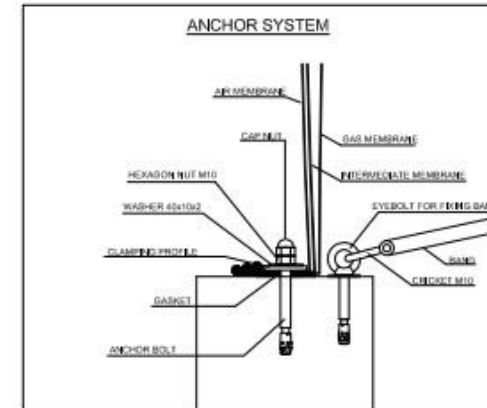
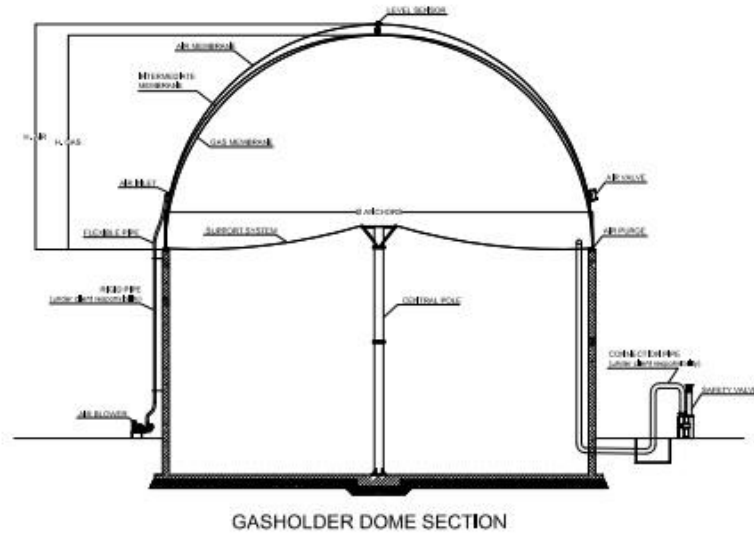
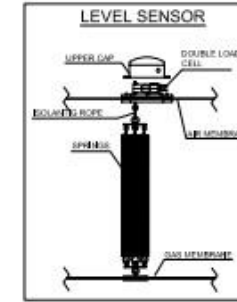
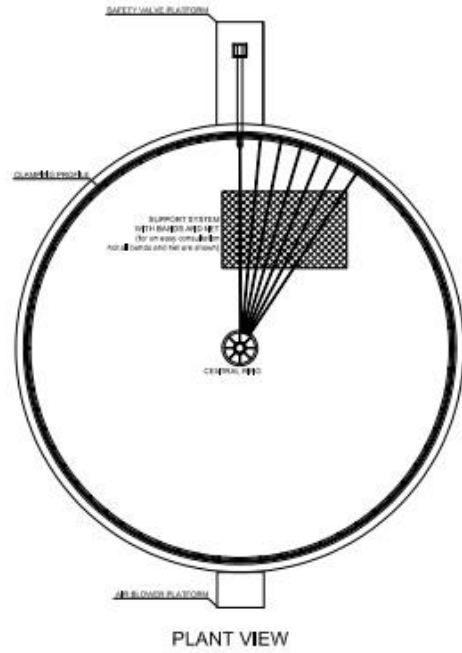
- Anchorage System;
- Air Fan;
- Air Valve;
- Hydraulic Safety Valve;
- Inspection Window;
- Volume Level Sensor 4-20mA
- Net Support System

### OPTIONAL

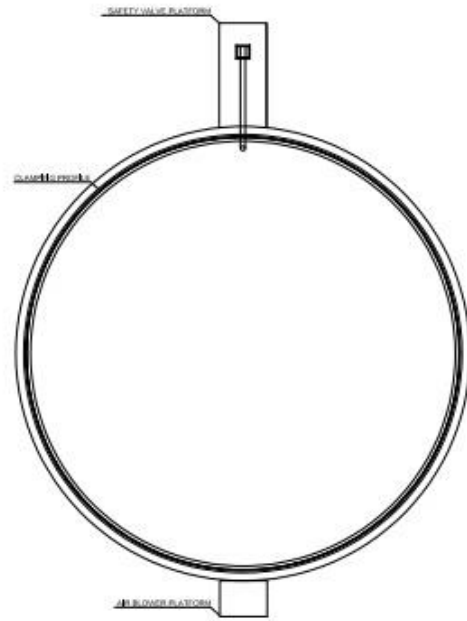
- ❖ *Central Pillar*
- ❖ *Methane Detector*
- ❖ *Air Pressure Transmitter with display*



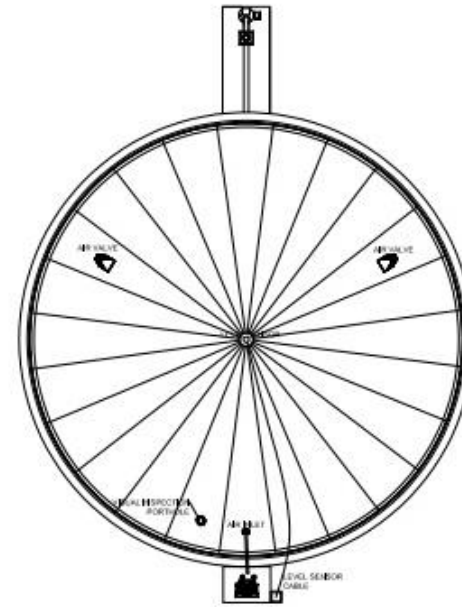
Ø tank (m)	¼ Sphere		½ Sphere	
	H (m)	V (m³)	H (m)	V (m³)
6,00	1,60	18	3,20	54
7,00	1,85	30	3,70	86
8,00	2,10	46	4,20	129
9,00	2,35	67	4,70	184
10,00	2,60	94	5,20	254
11,00	2,85	127	5,70	339
12,00	3,10	166	6,20	441
13,00	3,35	213	6,70	562
14,00	3,60	268	7,20	703
15,00	3,85	332	7,70	866
16,00	4,10	404	8,20	1.052
17,00	4,35	487	8,70	1.263
18,00	4,60	581	9,20	1.501
19,00	4,85	686	9,70	1.767
20,00	5,10	802	10,20	2.062
21,00	5,35	931	10,70	2.389
22,00	5,60	1.074	11,20	2.748
23,00	5,85	1.230	11,70	3.142
24,00	6,10	1.401	12,20	3.572
25,00	6,35	1.586	12,70	4.040
26,00	6,60	1.787	13,20	4.546
27,00	6,85	2.005	13,70	5.093
28,00	7,10	2.240	14,20	5.683
29,00	7,35	2.492	14,70	6.316
30,00	7,60	2.723	15,20	6.995
31,00	7,85	3.052	15,70	7.720
32,00	8,10	3.361	16,20	8.494
33,00	8,35	3.690	16,70	9.318
34,00	8,60	4.040	17,20	10.194
35,00	8,85	4.412	17,70	11.123
36,00	9,10	4.805	18,20	12.107
37,00	9,35	5.222	18,70	13.147
38,00	9,60	5.661	19,20	14.245
39,00	9,85	6.125	19,70	15.403
40,00	10,10	6.613	20,20	16.621



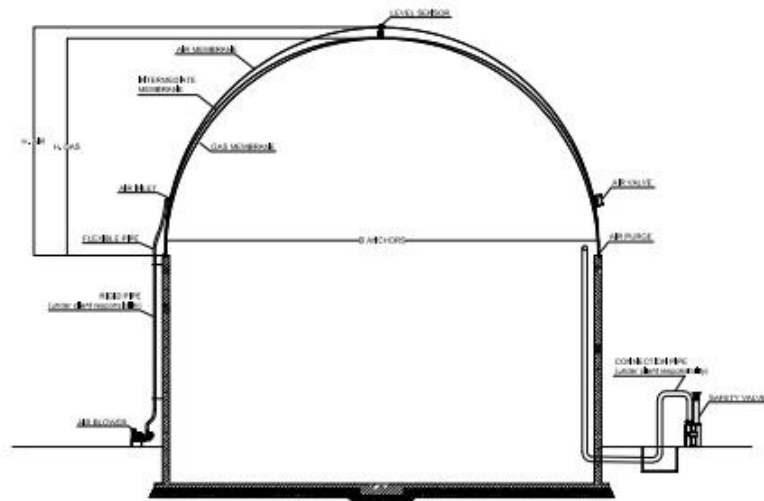
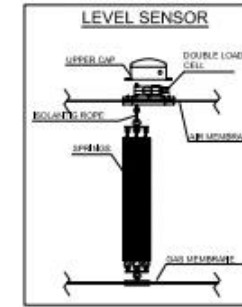
**CUPOLA M3 with  
Net Support System**



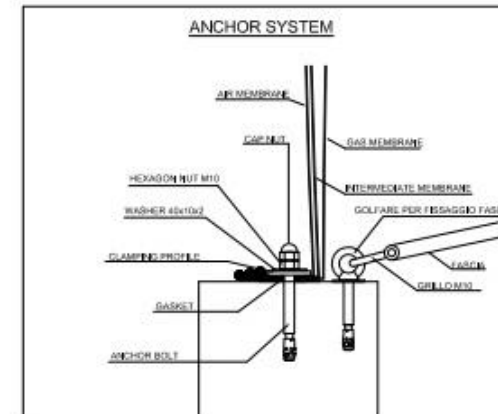
PLANT VIEW



POSITION OF THE ACCESSORIES



GASHOLDER DOME SECTION



ANCHOR SYSTEM

**CUPOLA M3 without  
Net Support System**