



e file No. 259/7/2019-Biogas
Government of India
Ministry of New and Renewable Energy
(Biogas Division)

AAUB, Opp. to CGO Complex,
Lodhi Road, New Delhi-110003.

Dated: 14.12.2022

OFFICE MEMORANDUM

This is in continuation of MNRE's Request for Proposal (RfP) invited online during the month of January, 2020 for new design of small biogas plants for consideration for approval under this Ministry's Biogas Programme. and the O.M. of even number dated 28.01.2021. The undersigned is directed to inform that based on the field performance evaluation undertaken by the Sardar Swaran Singh National Institute of Bioenergy (SSS-NIBE), Kapurthala as per the parameters recommended by the New Biogas Projects Experts Appraisal Committee (NBPEAC) constituted by this Ministry, the flexi domestic biogas plant designs are approved as per given specifications and parameters in **Annexure-I**. The approved biogas plant's designs/models shall be considered eligible for the benefits under the Biogas Programme of this Ministry.

2. The MNRE reserves the right to cancel/ modify the said approval at any time in future based on the feedback received from the end users/BIS/Technical agencies or the implementing agencies.

This issues with the approval of the Competent Authority in this Ministry.

Encl: as above.

(S R Meena)
Scientist D

E-mail: meena.sr@nic.in

To,

1. Heads of all the State Programme Implementing Agencies (PIAs);
2. CEO, Khadi and Village Industries Commission, Mumbai;
3. Chairman, National Dairy Development Board, Anand ;
4. PIs of all 8 Biogas Development and Training Centres (BDTCs);
5. Manufacturer/Developer of flexi domestic biogas plant models.
6. Mechanical Engineering Department, Bureau of Indian Standards, New Delhi-12
7. DG, SSS-NIBE, Kapurthala (Punjab).

Copy to: (i) Senior Technical Director, NIC, MNRE, New Delhi 110003 - for uploading on MNRE's website.

(Relates to MNRE's O.M. No. 259/7/2019-Biogas dated 14.12.2022)

Subject: Technical specification of flexi-biogas plants

Specifications/ Parameters	Name of Original Equipment's Manufacturer (Biogas Plants of capacity range from 1 m ³ to 25m ³ Biogas generation per day)		
	M/s Home Biogas	M/s Sistema bio	M/s S P Eco Fuel
1. Biogas plant Size (biogas generation m ³ per day)	1.4 and 2.6	1, 1.5, 2, 2.5, 3, 4, 5, 6, 8, 10, 15, 20 and 25.	3, 5, 7, 10, 15 and 25
2. Material of construction	UV resistance polypropylene based flexible Type Prefabricated biogas plant	UV resistance LLDPE, (with a minimum average thickness of 1.25 mm)	PVC Coated Polyester Fibre based (with Mini. weight of 760 Gram/ Sq. Mtr. Flexible Balloon Type Biogas Plant.
3. Tensile Strength	Warp – 209 & Weft – 192 (Kg/5 CM)	33 kN/m (Test- ASTM 6693)	Warp - 240 & Weft – 220 (Kg/5 CM)
4. Tear Strength (Kgs)	Warp - 45 & Weft – 52 (as per ASTM D4533)	(Min Average): 120 N (ASTM D1004)	Warp - 35 & Weft – 30 (as per BS 3424 Part 5 Method 7A)
5. Resistance to flame and weather	All components of the biogas unit to be flame resistant/ non-flammable as per DIN 75200, UV stabilized and weather resistant.		
6. Biogas Delivery Pressure (at burners)	The biogas delivery pressure to be maintained uniformly at 150 mm Water Column upto 80% of utilization of the generated biogas volume.		
7. Leakage	Used materials should not leak at 220 PSI test pressure as per IS 7016 or as per equivalent standards or LLDP type bio-digesters should not leak at 80 mBar.		
8. Accessories (fitting and Burner)	Double Burner Stove with gas valve, Moisture trap/Remover, Lighter O& M User's Manual, Dung Mixture Drum/ feeding tank, Biogas pressure booster pump or any suitable alternate/apparatus (such as counterweight bag, as applicable.).		
9. Piping and fittings / connections	Inlet & Outlet Pipe with diameter of 110 mm PVC material, Gas Line: HDPE with Diameter 25 mm (1") Gas pipe line with length of minimum 30 meters.		
10. Useful life of Biogas Plant	Minimum 10 years from the date of commencement of operations of the biogas plant.		
11. Finishing of the product	The Biodigester provided to the users should be new, and free of all kind of defects, such that it conforms to the specifications provided in the User Manual. The User Manual should have the Dos and Don'ts and basic troubleshooting guidelines along with consumer help line number / email.		
12. Marking / Unique Serial Number	Distinctly marked with Product code, Capacity of biogas generation in cubic meters per day, daily feeding quantity in Kgs, Unique Serial Number of the unit as a mark of identification including Batch number with year of manufacturing clearly visible after installation.		
13. Installation and commissioning of Biogas plant	Shall be done by the Manufacturer's authorized and trained personnel. The beneficiaries of biogas plants shall be provided with an "Operation and maintenance" Manual in the printed form/version along with warranty and guarantee clauses.		

Note: The Manufacturer of the biogas plant shall be bound to carry out any further required change(s) in these approved model of biogas plants, as and when felt necessary and asked by the Ministry (MNRE), including those required for formulating a new BIS standards for standardization of such models of biogas plants