Digester Doctor

Ensuring operational efficiency of your Anaerobic Digester



Arka BRENStech offers customized "Microbial Cultures & Enzymes" to treat various organic wastes including vegetable wastes, rice straw, cow manure, and other agricultural wastes anaerobically to ensure no scum formation and high rate biomethanation happening inside the digester. These are non-toxic & environmentally safe products. More than 30 different types of proteins are estimated to be present in the enzyme solution. Offered products are water soluble with a dilution ratio of 1:1000. And recommended dosage upon stabilisation shall be minimal. Some of the salient impact upon addition of our products to biogas plant shall feature: Improvement in biodegradation efficiency leading to better COD & BOD removal.

- 1. Reduce the refractory COD content.
- 2. Facilitates breaking down of harder to degrade components.
- 3. Aids depigmentation in case of colouration is contributed by refractory chemicals.
- 4. Minimises scum formation due to faster hydrolysis.
- 5. Increases the overall efficiency of digestion.

- 6. Increase stirring Efficiency.
- 7. Improves pumpability.
- 8. Increased usage of cost-efficient input materials.
- 9. Improves the process stability.
- 10. Reduced downtime leading to higher profitability.
- 11. Reduction in sludge formation, and.
- 12. Solubilisation of hard scum.

The products are specifically designed for organic waste treatment through Anaerobic Digestion (AD). The offered solution works by breaking down complex molecules faster and releasing more of the stored energy in form of biogas from the concerned biomass/feedstock. Thus, resulting harnessing more energy from the same amount of Biomass/Feedstock. Our products show significant improvement in efficiency of a typical biogas plant by increasing the biogas yield upto 15%.

Applications:

- > Biogas plants (with any organic feedstock).
- > Municipal Solid waste (Organic) fermentation plants.
- > Wastewater treatment plants.
- > Anaerobic industrial wastewater plants.
- > External biological desulphurisation columns.



A glimpse of Arkalture and Brenzyme effect on scum in digester

Products:

Arkalture: Helps in improving and sustaining the population of favourable microorganism in the digester.

Brenzyme: Helps the microorganism to break the biomass into simple molecules.

Arka Gas Enhancer: Improves digester's stability and the bio-gas yield thus augmenting overall plant performance.

Product Packaging:

The above-mentioned product will be delivered in a container with a minimum packing capacity of 5 litres, which can be conveniently fed to the pre-treatment or directly into the digester. The product has a shelf life of minimum 6-months, and the product is stored under normal condition without any specific requirement.

Dosage:

Our experts will calculate the customised dosage requirement based on several factors, like feedstock type and other plant specifics.

