

# ENHANCING EFFORTS FOR SUSTAINABLE ENERGY GENERATION



## Green Energy for Greener tomorrow

Bio Gas is the ideal energy solution for today's world. It provides clean fuel to meet demands, reduces load on the local power grid and also produces organic manure for farming as a by-product.

Since bio gas production utilizes bio waste, pasteurized bio mass, condensed substrate, digestate feed and slaughter house waste; it also significantly reduces water and land waste.

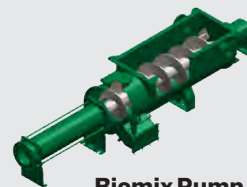
## Bio Gas Production

- Bio-Mix pump is used to mix and transfer slurry made of Macerated bio-waste and digestate liquid (at 70°C) into fermentation tanks.
- In an oxygen free environment inside fermentation tanks; micro organisms transform organic matter into methane rich bio gas and carbon dioxide through a process called anaerobic digestion.
- A progressive cavity pump is used to circulate the sludge heat exchangers to maintain sludge temperature at 37 °C. This ensures that anaerobic bacteria remain intact inside the fermentation tank
- After fermentation, the resulting digestate slurry is transferred by biomass pump to open lagoons
- Finally, progressive cavity pump is used for filling the organic manure into the tankers.

## Progressive Cavity Pump Applications in Bio Gas Industry

- **Feeding highly viscous bio-waste slurry to fermentation tanks.**
- **Recirculation of fermentation tank slurry and feeding to digestate storage tanks**
- **Mixing of Bio-waste with the digestate slurry**
- **Transfer of digestate to bio-mix unit & open lagoon**
- **Transferring Organic Manure from open lagoon to tractors**

## Biogas Pump



**Biomix Pump**  
Flow rate upto 215 m3/hr  
Pressure upto 12 bar



**Horizontal RB Series Pump**  
Flow rate upto 250m3/hr  
Pressure upto 12bar

**Vertical VB Series Pump**  
Flow rate upto 250m3/hr  
Pressure upto 12bar



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