

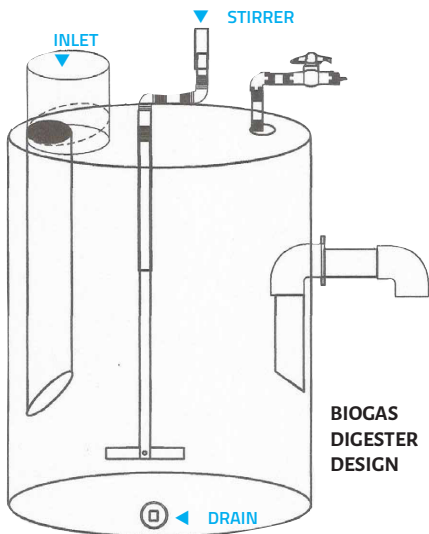


DOST-ITDI

"OUR BUSINESS IS INDUSTRY..."



PORTABLE BIOGAS DIGESTER



Department of Science and Technology
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Management
System
ISO 9001:2015



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Biogas is derived from the microbial digestion of biodegradable waste such as household waste or kitchen waste, animal manure, and other non-toxic organic materials. It is a mixture of gases produced by methanogenic bacteria under anaerobic conditions.

Methanogenic bacteria are microorganisms that act upon organic materials and produce methane and other gases in the process of completing their life cycle in an anaerobic condition.

Material type:

- HDPE Plastic (Blue drum) with inlet & outlet pipes (PVC)
- Stirrer with paddle (PVC pipe/S/S pipe)
- Drain (PVC clean out)

Digester maximum capacity : 211 Liters

Digester effective volume : 150 Liters

Gasholder maximum capacity: 145 Liters

Substrates / Loading Rate:

1 part Animal Manure + 1 part Water

Start-up Operation (7-10 days until gas is flammable)

Inoculum 100 L

Animal manure 8 kg

Water 16 L

Normal Operations (Daily Loading)

Animal manure - 5 kg

Water everyday - 5 L

- *Inoculum or starter comes from the sludge taken from an operational biogas digester.*
- *If no available inoculum, fill the digester with manure (about 100 kg) and let it stay for 3 days for inoculum build-up.*

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