#### BIO TOILET

(Based on Eco Friendly Sanitation Technology Bio-digester) (Develop by DRDO)



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#### ABOUT US

#### COMPANY PROFILE

We have associated Company who is a Experience Company & only made for Bio-Digester & Bio-Toilet Technology Which is Develop by DRDE Gwalior/ DRDO Delhi for welfare of Human Beings

#### OUR MISSION

To ensure Pure Waste Discharge from a toilet, thus playing a critical role in preventable healthcare and thus Initiating Mahatma Gandhi Swach Bharat Abiyan

#### Our OBJECTIVE"

- Prevent Open Air Defection
- Manufacture & Install Affordable Bio Toilet and Bio Digester
- Install Bio Toilet & Bio Digester as much as possible before 2019
- Prevent Disposal of Human Waste in Sewage ,River, Pond, Lake etc
- Prevent Water Borne Disease like Cholera ,Typhoid ,Diarrhea etc

#### TECHNOLOGY

This Technology is developed by DRDO (MINISTRY OF DEFENSE). DRDO has transferred this technology to Our and associated Company who are manufacturing the Bio-Toilets and Bio-Digesters as per DRDO technology.

This Bio-Digester has Two Components

- ➤ Bio-Digester tank.
- This Tank Contain Multiple Chamber
- This Tank Can be made up of Mild Steel, Stainless Steel, Fiber Plastic and RCC

Reinforced

- Specially Design Bacteria Corsosium (Developed By The DRDO)
- This Bactria Works at Various Temperature
- Perform Fast Degradation of Human Waste.
- It Use Human Waste as a Substrate and Converted into Methane & Carbon-Dioxide Which is Also called as Biogas. Plus Water (Which can be filter by using Red Bed Technology)

#### OUR MANUFACTURING PRODUCT

- We are having associated Company manufacturing Bio Toilets and Bio-Digesters. There is no requirement of sewage line and electricity for the said products. This is an Eco-Friendly product.
- We are offering an innovative technology for disposal of human waste in eco friendly manner. These Bio toilets can function at any atmospheric temperature. The bacterial consortium degrades night soil and produces colorless, odorless and harmless water, which can be used as liquid fertilizer for gardening or agricultural purposes, or can be disposed off safely in the drainage or soak pit. Another by product of the degradation process is Methane or Bio Gas.
- The Tank of Bio toilets are cylindrical or Rectangular structure with the provision of inlet for human waste and out let for Bio gas and Water. Night soil degradation occurs through microbial reaction which converts it into bio gas. The smell of night soil, the disease causing organisms in the night soil and the solid matter are almost eliminated. On dry weight basis 99% of the solid waste is reduced. The gaseous effluent (bio-gas) is continuously let off to the atmosphere. Bio Gas can be used for various energy incentive activities like cooking, water and room heating. Liquid effluent can be drained to any surface or soak pit without any environmental hazards.

#### **Using the By-Products**

- The water can be used as a self sustaining irrigation source.
- By adding a reed bed the water can be recycled and used further.
- Based on the usage of the bio toilet, the methane produced can be used to generate electricity and for cooking purposes.

# **WHAT IS A Biodigester**

A Toilet System which

Disposes - human waste in a 100 %

Eco- friendly manner

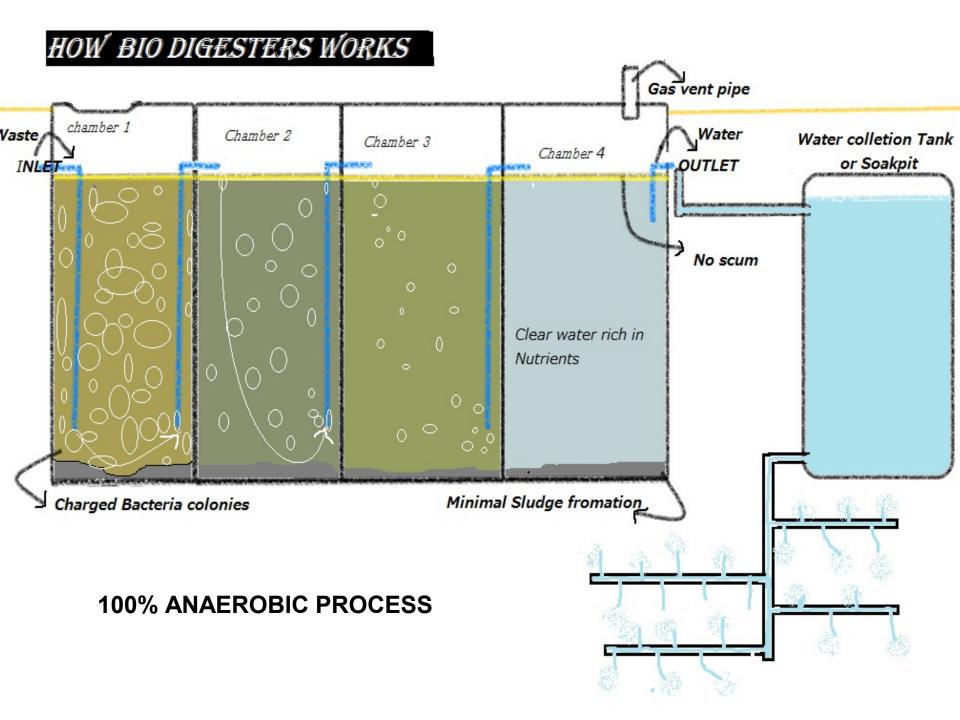
**Saves** - Energy

Conserves - Water

Produces - Bio gas

## **APPLICATION**





#### SALIENT FEATURES

Inoculums charging is only once during the entire life of Bio Toilet

**Affordable** 

Low space requirement as compare to Septic Tank or Soak pit

100% maintenance free

Can be installed anywhere

**Complete elimination of pathogens** 

No dependency on the costly energy sources for waste treatment

No disposal of sludge is required.

Waster water can be used for Gardening

Easy to transport and install

No insects grow because of absence of oxygen inside the tank

No requirement of adding bacteria/ enzyme

**BIODIGESTERS** 

#### WHERE IT CAN BE INSTALLED

- AREA Where there is no Sewage & no Layout is possible for Sewage piping
- Rural Areas or Urban Rural (Slums)
- Mobile Vehicles like Buses and Specially made Mobile Toilet
- Individual House
- School/Collages/Buildings/Hospitals/Hotels anywhere.
- Small Community / Large Residential Complex
- Industrial Establishment(only for Human & Kitchen Waste Disposal)
- Religious Places
- Temporary Large Gathering of People
- Railway Stations/ Platforms, Bus Terminals, Highways, Tourist places, Dhabaas, Petrol pumps
- Tourist Forests
- Military Vehicles, Weaponless armless vehicles
- Border



# BIODIGESTERS



**Metal Biodigesters** 



Spot test for inflamability of biogas



Biodigesters at Army Transit Camp Pang (Altitude: 15200 Ft)



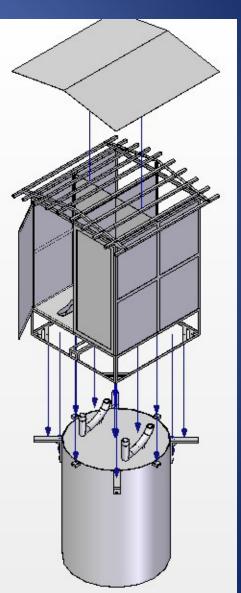
Biodigester at Siachen



# Biodigesters Installed at Partapur









# <u>Sikkim</u>











# MODULAR TEMP CONTROLLED BIODIGESTERS













# Bio Digester in Indian Railway









### Temperature Controlled Hybrid Biodigester

Digester

Solar Panel

**Grinder & Toilet** 

Grinder









Working at North Pullu (16400ft) since July 2006

Kitchen waste and human waste degradation



# Vivekanand Needam Gwalior











# Vivekanand Needam Gwalior











## Coach Care Centre Delhi







# Industrial Establishment





# Biotoilets for Commonwealth Games



Siri Fort, Delhi



Games Village, Delhi



# Biotoilet Complex at DRDE Gwalior









# Biotoilet Test Facility , Gwalior













# Biodigesters in Lakshadweep





Twin ELOOs – Dhamra, Odisha



#### TWIN ELOOs AT BUS STOP, HYDERABAD



# Rural ELOO standalone at Hyderabad





# ELOO Polyethylene Tank, underdevelopment for easy installation



# ELOO Rural Standalone Tank, Hyderabad



# BIO -TANK

(Concrete BDTS – Bio digester Tank system)

esidential , Sainikpuri, Hyderabad

Poridontial Sainikouri Hudorahad

Industrial, Bolaram, Hyderabad





#### BIODIGESTER WITH SANDBED FILTER



