



Comprehensive - Decentralised
Solid Waste Management Solutions

# Winner of Skoch Order of Merit - 2017







### **DECENTRALIZED SOLID WASTE MANAGEMENT SOLUTIONS**

# Bio-boxX<sup>™</sup>

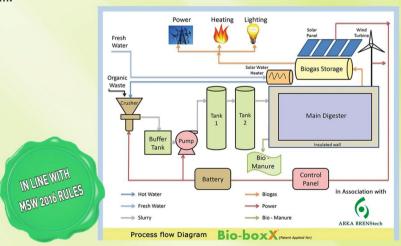
A Containerized Kitchen/Organic Waste Processing System



Completely Self Substainable Waste to Energy Plant at Indian Railways
Organization for Alternative Fuel (IROAF), Kishan Ganj, New Delhi

The BioboxX is a de-centralised organic waste treatment plant. It is containerized and a plug and play model. The waste is manually segregated into biodegradable and non biodegradable fractions. The biodegradable fraction is fed into the biobox alongwith some water. The bioboxX, has a sufficient retention capacity to digest the degradable matter into biogas and the residual liquid - a soil enricher. The biogas is used for cooking or can be used for power generation, and the liquid slurry-can be either used for horticulture filter and dried as organic matter-liquid or dry manure is near odour free.

This is truly a scientific and environmentally friendly "energy positive" way of disposal of organic waste and harnessing of renewable energy therefrom.



Ideal waste management Solution with green energy and Solution with green energy and manure output for: Hotels, manure output for: Hotels, etc. Large kitchens Housing Societies, etc.

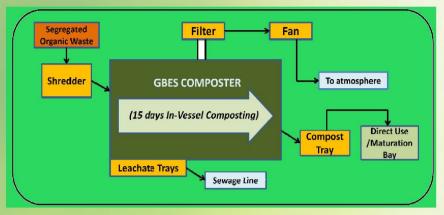
#### **Our Valuable Clients:**

Indian Railway Stations/Factory:- Sarai Rohilla (IROAF) (New Delhi), North Western Railways (Jaipur), DMRC Shastri Park (New Delhi), Integral Coach Factory (Chennai), Under Installation: 1. BCT (Mumbai Central), 2. SCR (Secunderabad) | Municipal Corporation:- Tumkuru Municipal Corporation (Karnataka), NDMC (New Delhi), Municipal corporation (Shimla) | Educational Institutes:- Birla Institute of Technology and science- Pilani (Pilani Campus) | Exports:- ACS Textiles (Bangladesh) | Under Kamdhenu Yojna:- Sushma Sehgal (Lucknow U.P.), Saurabh Yadav, (Lucknow U.P.) | Hotels:- EROS Hotel, (New Delhi)



### **GBES Bio-Composter**







- For producing NATURAL COMPOST and NOT Burnt Carbon
- Fully Automatic Natural Composting Machine
- Energy Positive Composting Solution
- In-vessel composting for treatment of small quantities (25kg/day to 1000 kg/day) of segregated organic waste in nutrient rich organic manure using low power.
- Odor Free Composting Process
- Uses forced aeration and mechanical agitation for rapid composting
- Suitable to replace manure and fertilizers for all agricultural needs.

Model No	GBES 25	GBES 50	GBES 100	GBES 250	GBES 500	GBES 1000
Capacity (kg/day)	25	50	100	250	500	1000
Connected Load* (HP)	2	2	2.5	4	7.5	10
Consumption*(Units/day)	1-2	1-2	2-3	3-4	4-5	8-10
Dimensions WxHxL (m)	1.2x1.3x2.5	1.2x1.3x3.2	1.4x1.5x3.3	1.5x1.6x4.3	2.2x2.2x4.2	2.5x2.5x6.3
Space Required (m²)	8	9	10	13	17	26
Culture Cost*(Rs/month)	75	150	300	750	1500	3000

#### **Our Valuable Clients:**

Hotels, Restaurants, Marriage Gardens: Jaypee Siddharth, Le Meridien, World Art Dining, Airport Residency (Delhi), Mitali Garden, Madhu Jas (Indore) | Offices / Residential Complexes:- DLF in various buildings, Gurgaon One (Delhi, Gurgaon), NHPC-(Mandi) | Schools/Hospitals:- Choithram (Indore) | Temples:- Hanuman Temple, Banke Bihari-Punjabi Bagh (Delhi) | NGO's:- Sledgehammer Foundation (Faridabad), Eco Santulan (Kolkata) Club:- The Country Club (Delhi) | Factory:- IPCA (Ratlam)



### FRP / Mini Bio Gas Plants



40 kg/day Capacity Mini Biogas Plant at Army Public School, Delhi. Substrate: Canteen Waste

#### FRP/ MINI BIOGAS PLANTS

Mini- Biogas Plants are small capacity 'Pre-Fabricated Biogas Plants' that can process any type of organic waste including kitchen waste, horticulture waste, cattle dung etc. in an environmental friendly manner to produce Biogas & Bio-Manure.

Available in capacities i.e. 30 kg, 40 kg, 50 kg, 100 kg, 200 kg & 250 kg per day processing capacities.

Long life due to manufacturing in corrosion resistant FRP material. Requires less space.

No civil work required.

No electricity consumption.

No dedicated manpower required.

#### Our Valuable Clients:

- Springdales School
- Jaquar & Company Pvt Ltd.

Capacity in Kg/day of waste	50	100	150	200	250	300	500
Gas equivalent to LPG	2	4	6	8	10	12	20
Manure produced in kgs per day	10	20	30	40	50	60	100
Space Required	4 m <sup>2</sup>	4 m <sup>2</sup>	5 m <sup>2</sup>	7 m <sup>2</sup>	8 m <sup>2</sup>	8 m <sup>2</sup>	15m <sup>2</sup>
Electricity Consumption	1HP	1HP	1HP	2HP	2HP	ЗНР	ЗНР

Retention Time: 25 Days

## Nisarguna Biogas Plants

We at GBES are License Holders of Nisarguna
Technology From Bhabha Atomic Research Center.

NISARGUNA plants are designed for handling and processing the biodegradable waste material in a decentralized manner. These plants can be installed for handling 1 to 25 MT of segregated biodegradable waste per day.

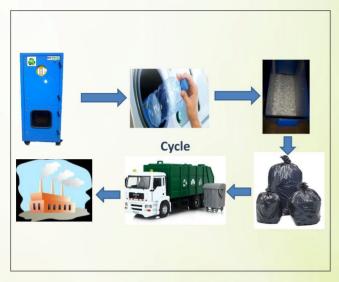
#### **Our Valuable Clients:**

- Uttar Pradesh Rajya Nirman Nigam Limited
- Tihar Jail, New Delhi
- Banaras Hindu University, Varanasi





### The Pet Bottle Crusher



With an aim to become to "PET NEUTRAL"



#### **Technical Specification:**

- Dimension: 3300X820X1000 MM,
- MS body, weight 640 kg
- Crushing Force: 6.5 tone, 50 ltr oil tank
- Two door: top load, specific curve design to support crushing force
- Power: 2HP-2.2KVA motor, single phase -15 MPR plug in, push button for up and down.
- Chamber Size: 500X400X500, bale size: 60-70kg as per waste quality
- Easy & safe to use: Top door fed, 11 seconds movement

#### Impact:

- Volume reduction of 50% to 90% as per material compacted
- Saving in transport by minimum 4-5 times hence reduction in:
  - 1. Fuel cost by 5 times in transport, more viable for recyclers
  - 2. Reduction in CO2 emission in environment, greener & sustainable effort from waste producers

#### **Our Valuable Clients:**

- TATA Consultancy Coca Cola
- Taj Hotels North Western Railway, Jaipur

- Tech Mahindra
- Zee TV
- Bislery
- North Western Railway, Jodhpur

Geotech is the market leading manufacturer and supplier of portable and fixed Landfill Gas Analysers and Biogas Analysers.













**□ BIOGAS 3000** 

Fixed-Line Biogas Analyser



Portable Biogas Analyser

#### **About us**

- \* Green Brick Eco Solutions Pvt.Ltd. a company started in 2011, works in the domain of Cleantech Energy Systems and focuses on providing Comprehensive Decentralised Solid Waste Management Solutions, We are in the field of offering solutions for waste "treatment", as against only shifting it from one place to the other.
- \* Have developed decentralized Biogas Generation System known as "Bio-boxX" which is a containerized plug and play organic waste treatment plant.
- \* Won Skoch Order of Merit in 2017, for outstanding work in the field of waste management at decentralized level.
- \* Have collabrations with BARC (Bhabha Atomic Research Center) for Nisarguna Biogas Technology & IIT Delhi for High Pressure Water Scrubbing of Biogas.

#### **Technology Providers & Partners**

- \* BARC (Bhabha Atomic Reserach Center) Developed Nisarguna Technology for Generation of Biogas and have various ongoing projects across India. We are License Holders for Nisarguna Technology.
- \* IIT Delhi Have developed High Pressure Water Scrubbing system for H2S removal from Biogas, we are their technology Holders for all our biogas purification projects.
- \* Biocrux First Company in India to provide Compact, Automatic and Soundproof Plastic Bottle Crushing Machine for End User. GBES has strategic tie up with Biocrux for all our Comprehensive Waste Management projects.
- \* GRE (Green Revolution Engineers) Manufacturers of Bio- Composter which is fully automatic Bio-Mechanical Rapid Composter. GBES has strategic tie up with GRE for all our Comprehensive Waste Management projects.

#### Our Associates - Digital Utilities Group of Companies

- \* DU is a company engaged in the manufacture of Sulphitation and allied Equipment including FRP based pipes for sugar industry.
- \* Developed and supplied Film type Sulphur Burner in 1998; and have supplied to over 300 sugar factories in India and to 9 countries world wide.
- \* Won the DSIR award for outstanding R&D by FICCI & DST; Govt of India
- \* In 1999 collaborated with M/s Biogasclean APS of Denmark, a world leader in Biological H2S scrubbing from Biogas for power generation.
- \* Have over 100 installations world wide with more than 450 mwe generation; with 10 mwe in India.

#### **Business Partners:**







Sister Concern



**Technology Providers** 







F- 58, Okhla Industrial Area Phase-I, New Delhi-20, India

Ph: +91-11-40526992-93 Telefax: +91-11-26811372

E-mail: info@gbes.in | www.gbes.in