

Fe ON

Bio Organic Solutions & Services

Biogas and Composting Solutions



Bio Gas Plants ●
Organic Composting ●
Consultation Services ●

ABOUT THE COMPANY

With growing awareness of the environment, Biogas is still considered undervalued when compared to other forms of energy. We at Fe ON BOSS believe that Biogas has great potential that is yet to be recognized mainly in growing economies such as India.

We have 15+ years of experience working with commercial and industrial projects. We are Headquartered in Chennai.

We have an enthusiastic team with the aim to constantly evolve and come up with new ways to make Biogas Mainstream by changing the conventional methods, improving them to meet modern needs, and at the same time keeping the costs low.

OUR MISSION

Our mission is to bring affordable Biogas solutions to all. We work in optimizing the process and MoC in achieving affordable biogas solutions.

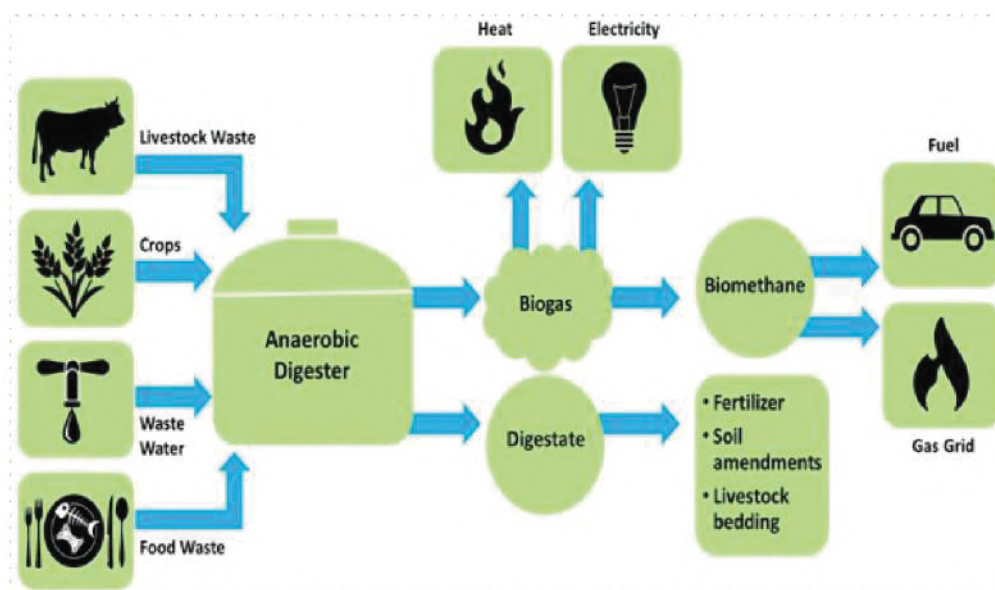
OUR VISSION

Our vision is to form as a reputed company in this field and keep all our customers happy by giving a exceptional Service Support.

"We promise to keep our customers happy at all times by serving them quality products along with quality after-sales support "

WHAT IS BIOGAS

Biogas is a type of biofuel that is naturally produced from the anaerobic decomposition of organic waste. When organic matter, such as food waste and animal waste, breaks down in an anaerobic environment (an environment absent of oxygen), they release a blend of gases, primarily methane, and carbon dioxide. Due to the high content of methane in biogas (typically 50-65% percent), biogas is flammable, and therefore produces a deep blue flame, and can be used as a fuel source. Biogas is a mixture of gases whose composition is as follows



Composition of Biogas %

Methane (CH ₄)	50-65%
Carbon dioxide (CO ₂)	30-40%
Hydrogen (H ₂)	1-5%
Nitrogen (N ₂)	1%
Hydrogen sulphide (H ₂ S)	0.1%
Oxygen (O ₂)	0.1%
Water Vapors (H ₂ O)	0.1%

OUR FOUNDING TEAM



ARUN KUMAR
CO- Founder & CEO

Seasoned entrepreneur with 20+ years of experience manufacturing, oem, steel and metal fabrication, biogas erection and maintenance, relationship management, people management, operations management and customer relations across various sectors like civil work, infrastructure, real estates e-commerce, automotive, etc. with strong communication, leadership skills, liaison capabilities, and drive to succeed, i'm passionate about building & leading competitive teams and creating a culture of excellence and sustainable solutions for the development of the ecosystem of the state and country

Continuous involvement and development in r&d, we have come up with many innovative solutions for efficient biogas plant operations. successfully commissioned over 200+ biogas plants all over india. some of innovations we have done in advanced 100% safety fire-proof biogas booster, and duel fuel (biogas -lpg) burner system.



RAJESH KUMAR
Co- Founder & CTO

BIOGAS EQUIVALENTS

Name of the fuel	Kerosene	Firewood	Cattle dung waste	Charcoal	Furnace Oil	Electricity	LPG	Diesel	Coal
Equivalent quantity to 1 cum of biogas	0.62Litre	3.50Kg	12.3Kg	1.46Kg	0.40Litre	1.25KW	0.3 - 0.43Kg	0.52Litre	1.6Kg

BIO - SLURRY

Biogas slurry improves the soil's physical, chemical, and biological properties. The biogas slurry contains considerable amounts of plant nutrients, improves crop production and soil physical properties, and prevents adverse environmental impacts of chemical fertilizer use. Biogas slurry contains 20-30 percent organic matter and macronutrients (N, P, K) & Micronutrients (Fe, Mn, Zn, Cu, B, etc.) necessary for plant growth.

Bio Slurry Parameters	Amount
Total nitrogen %	1.40-1.84
Total phosphorus %	1.10-1.72
Total potash %	0.84-1.34
Organic carbon %	35.0-38.4
Zinc (mg/kg)	103-116
Copper (mg/kg)	51-68
Manganese (mg/kg)	231-295

CARBON FOOT PRINT



Global Warming Potential (GWP)

of different types of gases

1 kg Carbon
Dioxide (CO₂)

1 kg
CO₂e

1 kg Methane
(CH₄)

25 kg
CO₂e

1kg Nitrogen
trifluoride (NF₃)

17 200 kg
CO₂e

Releasing 1 kg of Methane (CH₄) into the atmosphere is equivalent to 25Kg of CO₂. 1KG Methane (CH₄) = 25KG of CO₂.

ROI

BETTER



WITH BUY BACK PERIOD
OF LESS THAN 2-3 YEARS!



BIOGAS SOLUTIONS

FOOD WASTE BIOGAS PLANT

Food waste is one of the most common forms of trash seen across the world. They have a lot of organic materials and can produce a lot of biomethane. Food waste biogas plants are the most efficient way to recycle food waste with the least amount of personnel, physical upkeep, and running costs.

COW DUNG BIOGAS PLANT

Cow dung is an undigested waste excreta from cows that may be recycled and used as fuel and manure. Cow dung biogas is one of the best ways to recycle it quickly and easily with little physical effort, and as a bonus, you receive cooking fuel and fertilizer as a by-product. The generated gas is high in methane and may be utilized to replace LPG simply and safely.

HUMAN WASTE BIOGAS PLANT

When it comes to sewage waste management in suburban and rural areas, it may be highly time-consuming consuming. For smaller amounts of waste, STP plants will not be the best option. We provide a more effective alternative in the form of a Human Waste Biogas Plant. Our device is more efficient at producing biogas from human waste, reducing reliance on the traditional septic tank system.

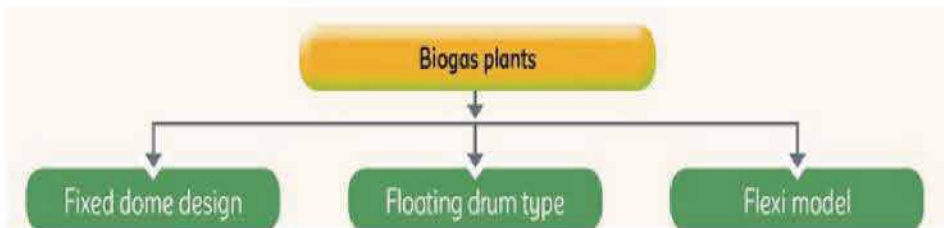
DOMESTIC BIOGAS PLANT

Cow Dung Biogas Plant				
Input Waste	Size	Cooking Hours/Daily	LPG Cylinder Replacement	Buyback period
50Kg	1.4M D x 1.8M H	2.0Hrs/SB	27KG - 1.8 Cylinder/Month	1.4Years
75Kg	1.6M D x 1.8M H	3.0Hrs/SB	40.5KG - 2.7 Cylinder/Month	1.4Years
100kg	1.8M D x 1.8M H	2.0Hrs/DB	54.0KG - 3.7 Cylinder/Month	1.3Years
125Kg	2.0M D x 1.9M H	2.5Hrs/DB	67.5KG - 4.6 Cylinder/Month	1.3Years
150Kg	2.3M D x 2.2M H	3.0Hrs/DB	81KG - 5.5 Cylinder/Month	1.2Years
Food Waste Biogas Plant				
50Kg	1.6M D x 1.8M H	2.5Hrs/DB	67.5KG - 4.6 Cylinder/Month	1.0Years
75Kg	1.8M D x 1.8M H	3.0Hrs/DB	101KG - 6.9 Cylinder/Month	1.0Years
100Kg	2.0M D x 1.9M H	4.0Hrs/DB	135KG - 9.3 Cylinder/Month	0.9Years
150Kg	2.3M D x 2.2M H	5.0Hrs/DB	202KG - 13.9 Cylinder/Month	0.9Years
200Kg	2.4M D x 2.6M H	5.0Hrs/UDB	270KG - 18.62Cylinder/Month	0.9Years

INDUSTRIAL BIOGAS PLANT

We also deliver 1-10 TPD Biogas plant for industrial application with Thermal and Power Generation

BIOGAS PLANT TYPE'S



PREFABRICATED FRP-BASED PLANT

We develop quality Pre-Fabricated Biogas gas plants with high-grade materials that guarantee good service life and protection from the weather. We have dedicated skilled workers at our fabrication place, whose main goal is to maintain quality standards as most of the process is handmade, we ensure that all look and feel the same.

We have pre-fabricated biogas plants of Cow Dung type and Food waste type with capacities starting from 5KG /Day to up to 200KG/Day capacity

On-Site FABRICATED FRP/MS BASED PLANT

We carry onsite fabrication of plants for high capacities considering the difficulties in logistics. As the plant size grows with capacity, it is economically not feasible to carry factory fabrication. We integrate technology where ever possible as per customer needs, we give MS-FRP combined Models. It increases the lifespan of the product and reduces maintenance. The problem of rust is also removed.

We do on-site fabrication for capacities over 200KG/Day for all Waste types.

MS FRP BIOGAS PLANT





BIOGAS ACCESSORIES

Along with the plant we supply all the necessary accessories. We have a wide range of models and sizes to choose from

FOOD WASTE CRUSHER

For proper working of the biogas plant and to have a higher efficiency rate it is necessary that the input waste fed in of paste form. We have Domestic and Industrial type food waste crusher based on the daily waste capacity.

BIOGAS BOOSTER WITH VFD CONTROL

We supply Biogas Booster to enhance the pressure of biogas and allow it to travel a longer distance because it is created at atmospheric pressure in the plant. We only employ a vacuum suction booster pump that is both safe and non-explosive.

FLAME ARRESTER AND MOISTURE TRAP

Safety while using biogas is very important. Flame arrester and moisture trap forms an integral part considering the safety of the plant. The amount of moisture in the gas has an impact on how well the booster and burner work. For safety reasons, the flame arrester acts as a non-return valve, preventing reverse firing in the pipeline.



DOMESTIC FOOD CRUSHER



INDUSTRIAL FOOD CRUSHER



BIOGAS BOOSTER



VFD CONTROLLER



FLAME ARRESTOR



BIOGAS ACCESSORIES

FLOW METER, BIOGAS BALLOON

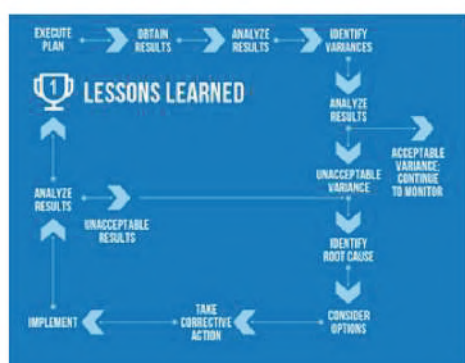
Biogas Balloon acts as a storage system when the quantum of gas produced is in excess of the actual need. Biogas Balloon can also be used where we require un-intermittent and long burning hours. We have Domestic and Industrial type Biogas Balloon with varying capacities starting from 5M³.

BURNER AND PIPES

We provide a variety of burners to meet the demands of our customers, including a domestic SS single stove, a single/double MS burner, a Stainless Steel single/double burner canteen burner, and a heavy-duty canteen burner variation of Canteen Burner. We also provide Hydraulic Standard Flexible Hose, which has a longer lifespan than traditional PVC pipes.

BIOGAS ENGINE

We can create power from food/cow dung/vegetable/fruit waste biogas plants using a biogas engine. The combustion energy of biogas is converted to kinetic energy which turns the turbine and generates electricity. In order to generate electricity from waste, the minimum daily quantum of waste required is 400KG.



BIOGAS PLANT
PROCESS MONITORING



BIOGAS FLOW METER



BIOGAS BALLOON



DUAL INJECTION BURNER



BIOGAS ENGINE

COMPOSTING SOLUTIONS



Composting is defined as the biological degradation process of heterogeneous solid organic materials. We deliver products that speed up the natural decay of organic material by providing the ideal conditions for detritus-eating organisms to thrive. The end product of this concentrated decomposition process is nutrient-rich Compost. This can be used as organic fertilizer to help crops, garden plants, and trees grow.

INDOOR COMPOSTING

Indoor composting is a process that converts waste like paper and kitchen scraps into a substance referred to as "humus". This is a dark and heavy material that enriches the soil with nutrients, helps structure maintenance, and helps to sustain moisture. This nutrient-rich humus is perfect for gardens. We provide Home composting solutions in the form of Compost Bins, which aid in accelerated composting thus reducing the composting time cycle.

COMPOSTING MACHINES

An organic waste composting machine is an independent unit that facilitates the composting process and provides better compost. It takes waste as its input and provides manure as its output. Composting without an organic waste composting machine will take a considerable amount of time, space, and manpower. We provide Non-Heating type composting machines which consume less space, Manpower and just take a 30 Day process to convert the waste to Compost.



*A distinction
between renewable
and non
renewable energy
is academic.*

~ Carlo Rubbia



CONSULTATION SERVICES ON ORGANIC SOLID WASTE

Organic waste (for example, food scraps, vegetable remnants, fruit litter, and so on) and compost (which is degraded by microorganisms in the soil) may be expertly handled or disposed of by partnering with the correct specialists. Composting or organic waste management is the way to go if you want to be environmentally friendly. Composting it might minimize greenhouse gas emissions, which would be beneficial to the environment. We have a team of Environmental management consultants, climate expert and waste management specialists who would guide you with the waste management at your premises. We also help you in getting green certifications. Learn ways to recycle your organic waste by reaching us.

We carry out the a detailed study of your present methods of waste management, analyze it, and come up with ways to optimize and improve it both in terms of amount of waste recycles and the labor involved. This reduces the periodical cost spent for waste management.

We abide with local rules and regulations set by the Local body Government at all times.



OUR EXPERIENCES



150Kg/Day Biogas plant - Govt.College of Engg, Salem



Mild Steel (MS + FRP) - 1000 KG Biodigester Plant



500kg biogas plant - Govt.College of engg, Bargur, Krishnagiri

OUR EXPERIENCES



300Kg Biogas Plant - ITC Limited, Chennai



50kg biogas plant x 3 Nos - Guntur

OUR EXPERIENCES



1000kg Biogas plant - Padaleeswarar temple, Cuddalore



MS + Inbuild Biogas Balloon Plant - 250KG



250Kg CD - Kapaleeshwarar Temple - chennai

OUR EXPERIENCES



1 TPD - Biogas Plant



100kg/day organic waste composter



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Bio Organic Solutions & Services

Biogas and Composting Solutions

Contact Us

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