

AKSHAYA INNOTECH

Innovating for a better world..



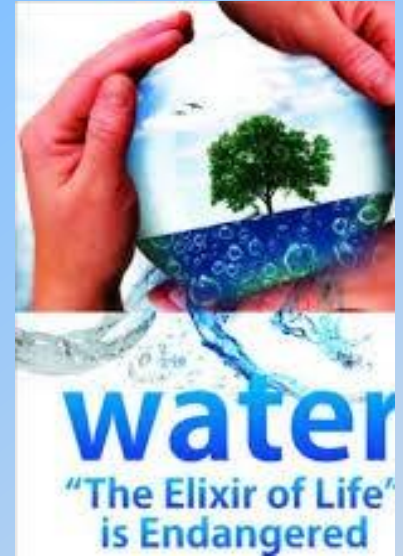
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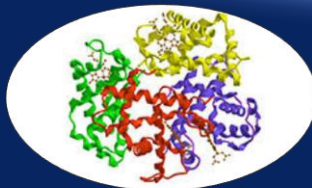
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EcoBud

A Disruptive Model for Sewage treatment and water reuse.



About Us:

Water Treatment Specialists

We are one of the leading water and wastewater management companies based in Hyderabad, specializing in the designs, production, and supply of several water treatment plants individually customized to suit your water requirements. We offer a scalable service covering single-sites through to large multi-projects, resolving customer requirements quickly and effectively to industry-certified standards.

Products and Solutions:

- a. End to End Solutions for Drinking Water Treatment.**
- b. Domestic Water Treatment.**
- c. Alkaline Water Systems.**
- d. Sewage Treatment Systems.**
- e. Solid Waste management Solutions.**
- f. Biogas Plants.**
- g. Effluent Treatment Systems.**
- h. Customized Microbes for Municipal Solid waste Composting.**

Limits of Treatment

S.No.	Parameter	Unit	Result	
			Raw	Treated
1	pH	--	6.8-8.0	7.0-8.0
2	SUSPENDED SOLIDS	mg/l	200-250	< 20
3	CHEMICAL OXYGEN DEMAND – COD	mg/l	800-1000	< 150
4	BIO-CHEMICAL OXYGEN DEMAND – BOD (3 days incubation at 27°C)	mg/l	200-400	< 20
5	OIL & GREASE	mg/l	25-35	Nil
6	Coliform count	CFU/100 ml	200-500	Less than 5
7	Streptococcus and Staphylococcus	CFU/10 ml	50-100	Nil
8	Vibrio and other pathogens	CFU/10 ml	40-100	Nil
9	Smell	---	Septic	None
10	Color		Brown to black	Clear to light green.

Competitive advantage of EcoBud Vs Conventional STPs

Salient Features of EcoBud STP:

- Compact, has minimum Moving Parts, Consumes Very Low Power and be odor free.
- Energy Recovery in first stage of treatment while removing over 30-40% of the BOD/COD.
- Compact Two stage Aerobic Bioreactor. (SAFF + MBBR)
- Low Power Blower used for aeration.
- Collection cum equalization tank in RCC is placed below the ground level.
- All other tanks of STP in RCC can be built below the ground as required.
- The system can be run on an ON-OFF Mode.
- Automatic Operation through Control Panel.
- Minimum Manpower requirement.

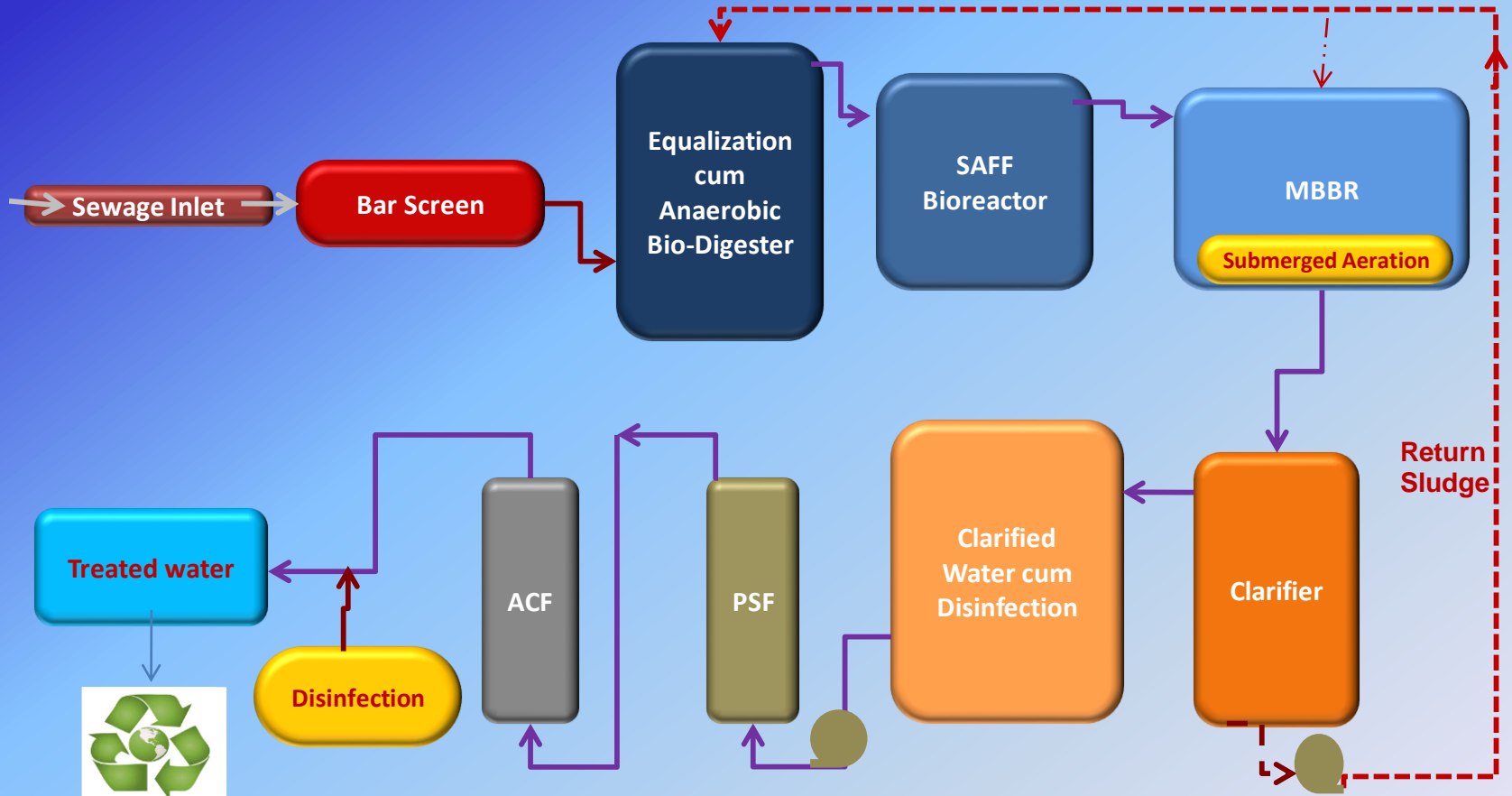
Advantages of EcoBud STP:

- reduced Space Requirement by 20-30%.
- Works on very low power (40-50% less electricity used)
- Zero maintenance
- Minimum chemical intervention
- Zero sludge generation and Zero odors
- 100% water recovery and reuse.
- Capable of handling shock loads.
- Customized Microbes with high Enzymatic activity.
- Scope for energy recovery through Biogas.
- Faster Return on Investment.

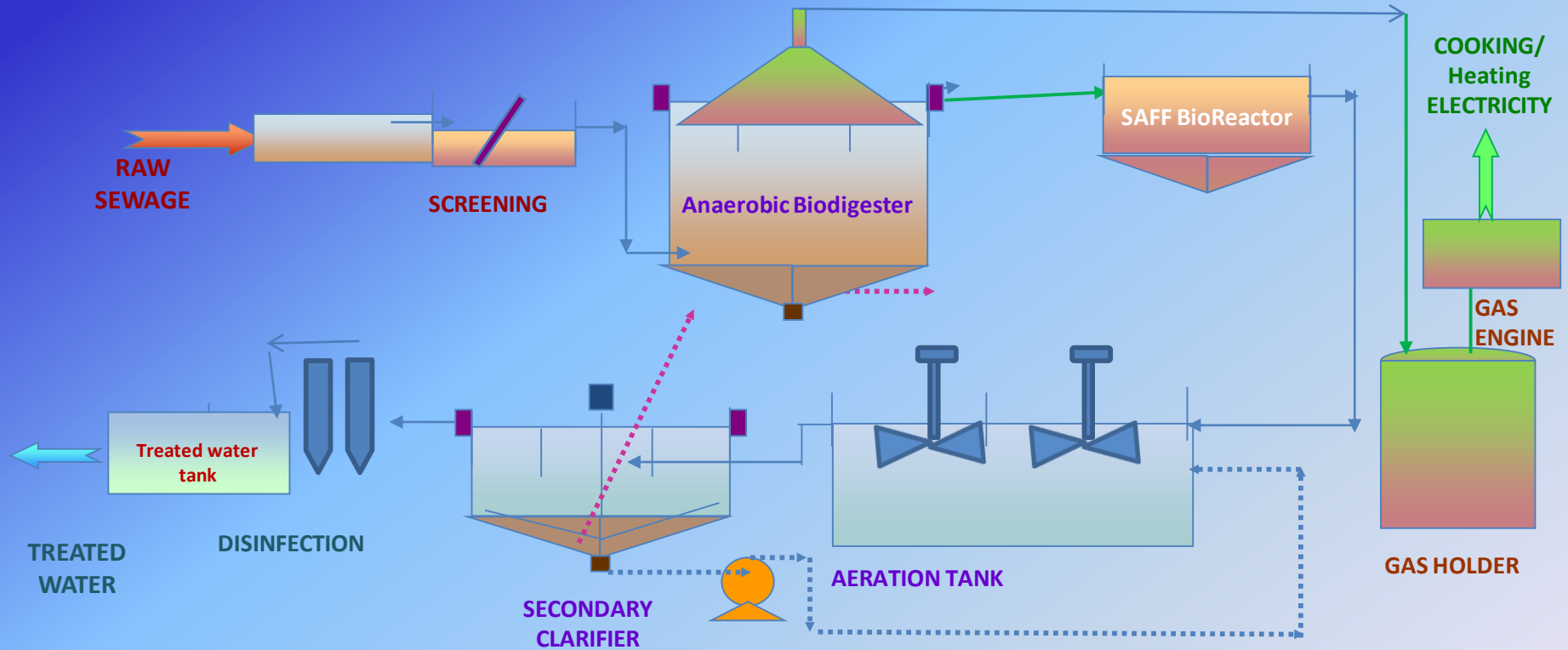
Competitive advantage of EcoBud vs Conventional STPs

S.No.	Feature	Eco-Bud	Conventional Systems
1	Space Requirements	Very Low	Large
2	Resource Recovery (Biogas)	High	Nil
3	Energy Requirements	Very Low	High
4	Carbon Footprint	Very Low	High
5	Obnoxious Odors	Nil	High risk if not run continuously.
6	Maintenance	Ultra Low	High
7	Chemicals Requirement	Low	High
8	Moving Parts	Minimum	All moving parts
9	Water Reuse and Recovery	100%	Only for gardening
10	Sludge Generation	Less than 2%	Very high
11	Noise Pollution	Zero	High
12	Operator/Surveillance requirement	Minimum	High
13	Sustainability	100%	--
14	Pathogens Reduction	>98%	50-60%
15	ON-OFF Mode of operation	Yes	No
16	Return on Investment	Fast	No

EcoBud Treatment Scheme

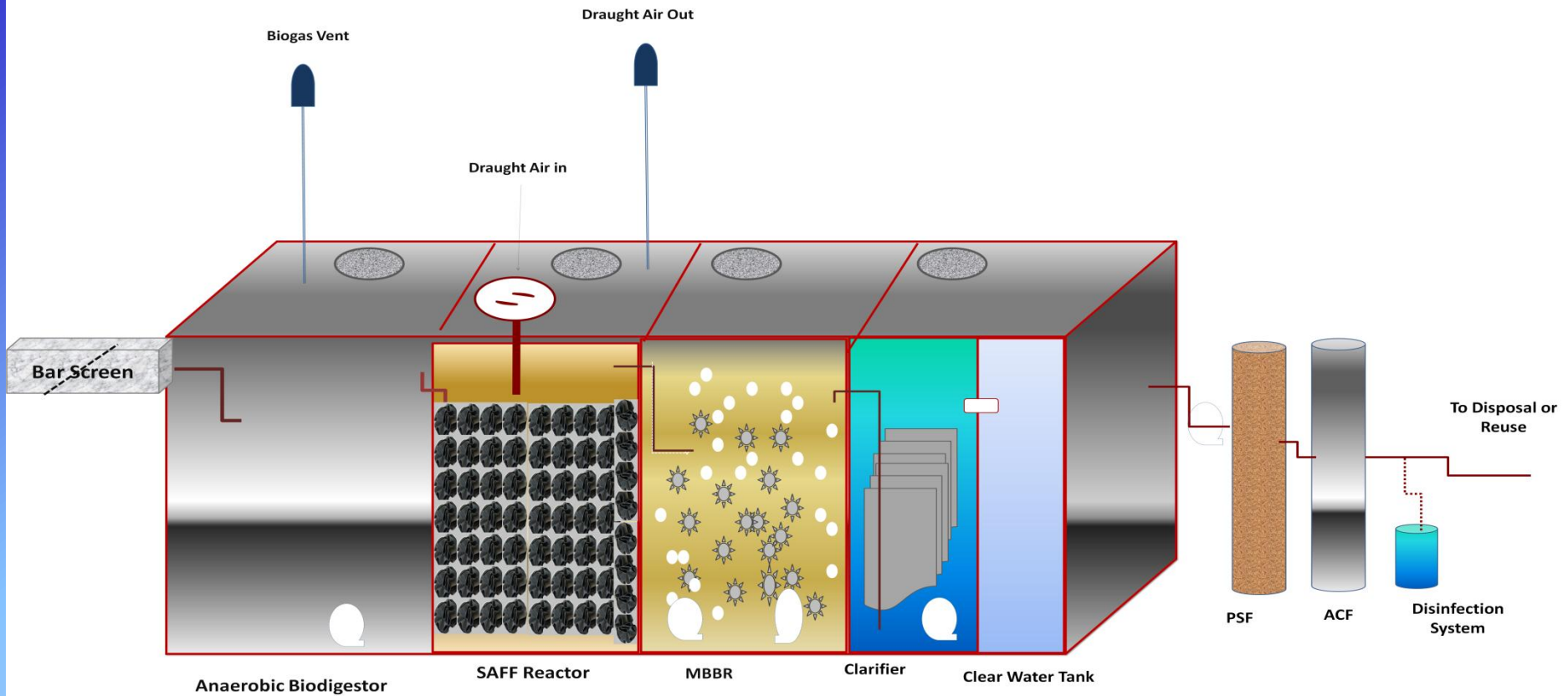


EcoBud - Flow Diagram



A Disruptive Model in Treating the Sewage – EcoBud

Works on Natural Draft Aeration with Low electricity.



Advantages of UASB (Biomethanation):

- a. Requires zero external power as against aerobic systems.
- b. Can handle a wide variety of effluents with organic loads.
- c. Generates valuable fuel in the form of methane.
- d. Scope for generation of power and heat.
- e. Recovery of high quality organic fertilizer rich in nitrogen, phosphorus.
- f. Zero recurring costs.
- g. Faster rate of return on investment.
- h. 100% safe and can operate under high shock loads.

Disadvantages of Biomethanation:

- a. Requires onetime slightly higher cost.
- b. Susceptible to toxic chemicals and high salts.
- c. Compression of natural gas is slightly affair.



Come.. Let us Build a sustainable tomorrow



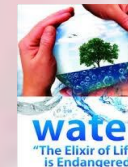
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Do not let the well dry,
to learn the worth of Water !

Thank You !

Dr. Sarath Babu