

SHAKTI[®]

Superior by Design

BIO DIGESTER

Convert Wet Waste into
Bio Gas and Manure



SHAKTI

INTRODUCTION

BIO DIGESTER

The SHAKTI Bio Digester gives you an opportunity to produce your own biogas for your cooking and other heating needs

The SHAKTI Bio Digester is easy to operate, and maintain



FEATURES

- **Total Capacity: 2.2 Cubic metres.**
- **Anti-Rotation Design: Inbuilt design that prevents the gas holder from rotating. This eliminates the requirement of a metallic structure to keep it in place.**
- **Plastic encapsulated dead weight: Makes it easier to handle and gives it a better aesthetic look.**
- **Well designed Feeder: The funnel shaped feeder is wide making it easy to feed waste into the digester without spillage. The straight inlet pipe ensures there are no blockages when feeding waste.**
- **Waste to be fed: Max 20 kg per day.**

SPECIFICATIONS

SPECIFICATIONS : SHAKTI BIO DIGESTER*			
Total Capacity : 2.2 Cubic Metres			
Gas Holder		Digester Tank	
Volume :	1 m ³	Volume :	1.2 m ³
Height :	1000 mm	Height :	970 mm
Diameter :	1290 mm	Diameter :	1478 mm
Built in Gas Outlet Size :		1/2 inch dia.	
Dia. of Feeder Pipe :		115 mm dia.	
Size of Overflow Slurry :		4 inch dia.	

ACCESSORIES PROVIDED : • 1 Burner Stove • 10 mts Gas Pipe
• Water Trap • 1/2" Ball Valve

INSTRUCTIONS

GENERAL GUIDELINES

- The Digester tank should be placed on a solid leveled surface, free from any sharp objects, stones, etc.
- Minimum space required for installation (Dia: 2.1 m, Height: 1.9 m). Provide free space of at least 1 meter around the Biogas Plant.
- Initially load the Biogas Plant with slurry of cowdung (200 kgs) and water (200 lts).
- After two days gas formation should start. It is a biological process and can require upwards of 10 days depending on quality of dung.

INSTRUCTIONS

GENERAL GUIDELINES

- Once gas has begun to accumulate, check for at least two days by burning. Flame must be blue.
- Once test is over, add approximately 4 kgs of waste. Increase this quantity to 10 kgs, 15 kgs and 20 kgs over the subsequent weeks.
- Water must be added equally i.e. 1 litre for 1 kg. Best results are obtained if the waste is pulverized into a slurry.

INSTRUCTIONS

TIPS TO START

- Use 100 to 200 kgs of cowdung mixed with equal ltrs. of water.
- Wait for the dome to rise, then exhaust air from the dome by opening the valve.
- Check if methane gas is formed by holding a match to light the stove.
- Mix the wet waste with water (50% wet waste & 50% water).



INSTRUCTIONS

TIPS TO START

- Load the mixed waste into the SHAKTI Bio Digester (max upto 20 kg per day) through the Feeder. Please do keep the feeder closed with the lid provided.
- Do not load the waste directly inside the tank. Only insert through the feeder.
- Ensure that the waste inserted is properly crushed.
- Maintain cleanliness in the surrounding area of the Bio Digester



Feeder with
Funnel & Lid

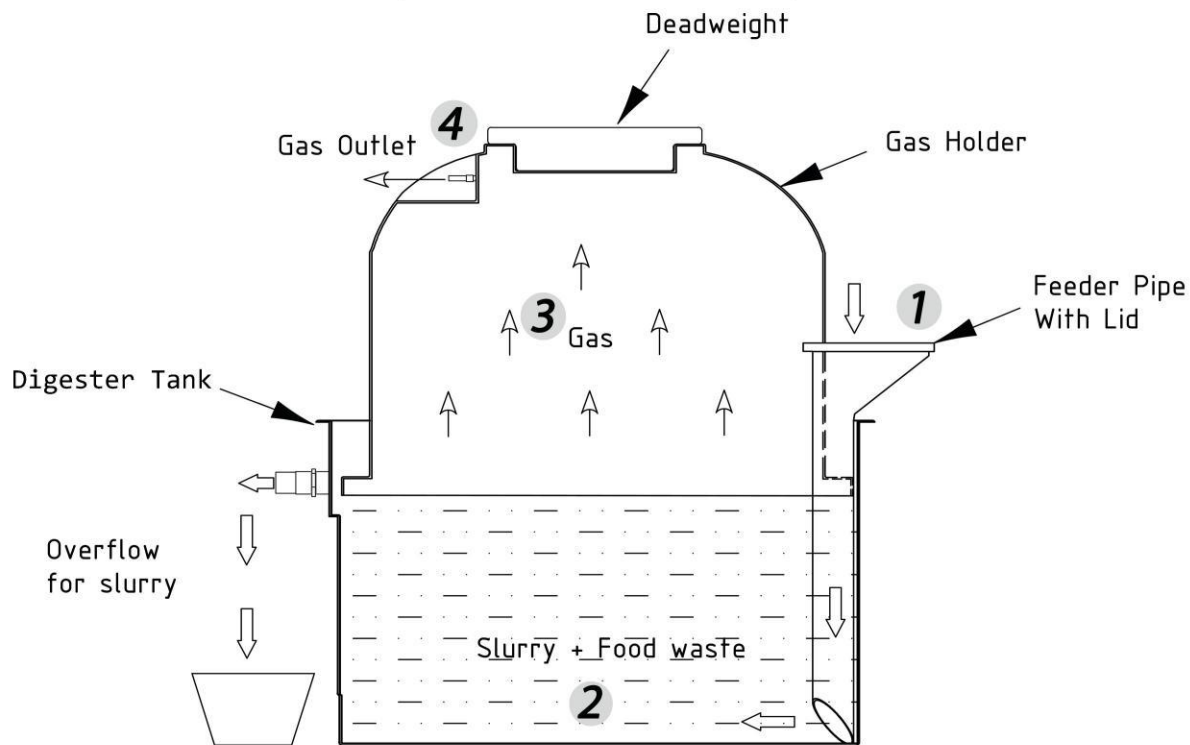
INSTRUCTIONS

TIPS TO START

- Slurry should be mixed with water and put for plants as manure.
- Water trap should always be installed at a lower level of the pipeline.
- Drain water at least once a week. To drain water, open the water trap valve. Close the valve once water is drained.



BIO DIGESTER



1

Cow dung and water is first fed into the digester. After burning gas comes out, organic waste is fed through the feeder pipe.

2

The anaerobic bacteria in the cow dung converts this organic matter into bio products - methane gas, Carbon dioxide, hydrogen sulphide etc and fertiliser.

3

The gas rises into the gas holder which floats depending on the volume of the gas.

4

This gas is then connected to your stove or can be used for lighting.

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THANK YOU
for your attention

