

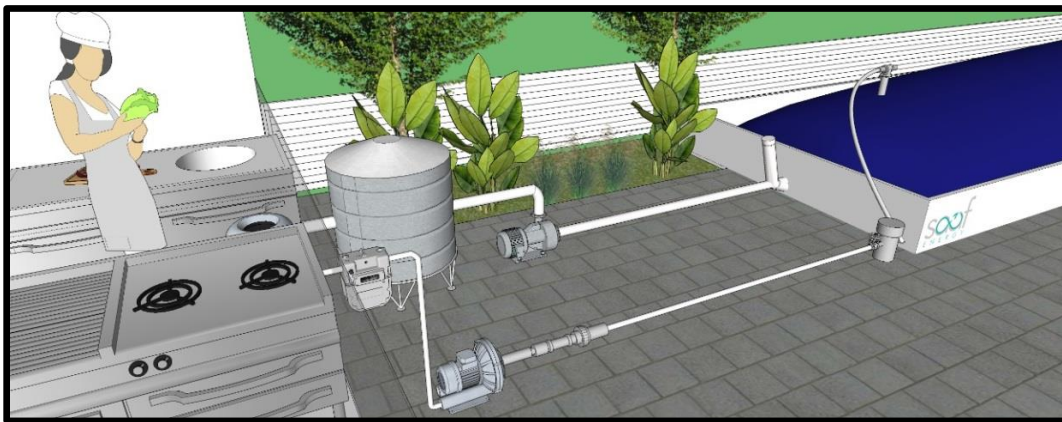
QTN

From: SAAF BIOGAS PVT LTD

Sub: FoodWaste GasBag™

Status: Catalog & Price List Quotation

Re: Your valuable feedback & PO 😊



On behalf of Saaf Energy we thank you for your interest in managing your wet waste responsibly, environmentally, and hygienically within your premises. You are now just a couple of steps away from preventing tons of food waste (a global ticking time bomb) from daily handling, transportation, and landfill disposal; and saving on your fossil-fuel sourced cooking gas and fertilizer bills!

In the FoodWaste GasBag™ we believe you have discovered the right solution at the right price for the right thing to do. To whet your appetite, the technology is a near off-grid, user & maintenance friendly, plug and play DIY Digester Kit packaged and door-delivered to the commercial bulk waste generator.




Enclosed herewith we invite you to check out our Product catalog & Price list; as well as Customer Scope & Cost-Benefit Matrix.




As a next step, we look forward to your invaluable feedback and to your valuable business

Thank you,

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PRODUCT CATALOG & PRICE LIST

1	Feeding Module	Description		0.1 TPD	0.25 TPD	0.5 TPD	1 TPD
a.	Commercial FoodWaste Mixie (1-5 HP range)	Plug and play organic waste crusher-grinder consisting of grinding chamber, hopper, teeth ring (SS) impeller (SS), cutting blades (hardened chrome steel), shaft and mechanical seal.		1 HP 300 Kg/h	2 HP 500 Kg/h	3 HP 700 Kg/h	5 HP 850 Kg/h
2	Hydrolyzer & Homogenizer buffer tank with inlet and outlet valves DN50	PE double layer water tank with manhole		Sintex or equivalent 500 L	Sintex or equivalent 750 L	Sintex or equivalent 1000 L	Sintex or equivalent 2 * 1000 L
3	Central Feeding & Recirculate Pump	Horizontal electric chopper pump / Centrifugal pump with open impeller type F (Criman Italy or equivalent)		0,75-40	0,75-40	0,75-40	0,75-40
a.	Inter-connecting Pipe and fittings			4X90° Elbow DN50 2XT-Piece DN50 4XValves DN50 Pipe DN50	4X90° Elbow DN50 2XT-Piece DN50 4XValves DN50 Pipe DN50	5X90° Elbow DN50 3XT-Piece DN50 4XValves DN50 Pipe DN50	6X90° Elbow DN50 5XT-Piece DN50 7XValves DN50 Pipe DN50
4	Digester Module			1 No	1 No	2 No	2 Nos
a.	Flexi Digester	North America manufactured LDPE plug and play modular digester or equivalent					
b.	With frame / wire support	Self-made					
5	Piped Biogas Module						

a	Biogas blower	0.4 KW Ring blower (1300 mmwc) by Raico or equivalent				
b	Moisture trap & Desulphurization	Condensate trap and FE-wool media-based desulphurization filter (included in biogas utility pipe kit)				
c	Gas Flow Meter	0.6-10m3/hr				
d	Dedicated Biogas Cooking Appliance	Double burner biogas spider cook stove with fittings				
e	Pressure Relief Valve (Safety valve)	-3 - +10 mb water column included in biogas utility pipe kit				
f	Pipeline Kit	Up to 100m with clamp, fittings etc.				
6 Digestate Module						
a	Liquid-phase storage tank	Standard PE water tank	1000L	1000L	1750L	1750L
b	Inter-connecting Pipe and fittings	Pipe from Digester outlet to storage tank DN100 including T-piece for the over-flow safety The recirculation pipe in in DN50	1XT-piece DN50 1X90° Elbow DN50 Pipe DN50 Pipe DN100 Reduction DN100/DN50	1XT-piece DN50 1X90° Elbow DN50 Pipe DN50 Pipe DN50 Reduction DN100/DN50	3XT-piece DN50 2X90° Elbow DN50 Pipe DN50 Pipe DN100 Reduction DN100/DN50	3XT-piece DN50 2X90° Elbow DN50 Pipe DN50 Pipe DN100 Reduction DN100/DN50
EX-FACTORY PRICE (INR) incl. installation			7,75,000	8,65,000	12,85,000	14,45,000
*GST, Transport, Cow Dung Inoculation			Extra	Extra	Extra	Extra

CUSTOMER SCOPE CHECKLIST & COST-BENEFIT MATRIX

	Comments	0.1 TPD	0.25 TPD	0.5 TPD	1 TPD
-	INR Ex-Factory Price incl. installation	7,75,000	8,65,000	12,85,000	14,45,000
@ SOURCE (INSIDE / BESIDE KITCHEN)	STEP 1: Food waste to slurry				
Segregated food waste (pre-cooked and post-cooked leftovers) free from non-biodegradable contaminants					
Commercial FoodWaste mixie (location & max. footprint)	Recommended location a) indoors / inside or beside Kitchen e.g. dishwash area, garbage room etc) b) In proximity of and with access to the hydrolyzer & homogenizer buffer tank and accessories	L x W (mm) 500 x 500 Height incl. mounted sink approx 1 meter	L x W (mm) 500 x 500 Height incl. mounted sink approx 1 meter	L x W (mm) 600 x 600 Height incl. mounted sink approx 1 meter	L x W (mm) 800 x 800 Height incl. mounted sink approx 1 meter
Hot Water input to Commercial FoodWaste mixie		SS 12 mm nipple 1 : 1 ratio ; 40 deg. C	SS 12 mm nipple 1 : 1 ratio ; 40 deg. C	SS 12 mm nipple 1 : 1 ratio ; 40 deg. C	SS 12 mm nipple 1 : 1 ratio ; 40 deg. C
Electricity input to Commercial FoodWaste mixie (3 phase)		1 HP 5 core cable/1.5sq mm	2 HP 5 core cable/1.5sq mm	3 HP 5 core cable/2.5sq mm	5 HP 5 core cable/2.5sq mm
Hydrolyzer & accessories e.g. blower, pump (location)	Recommended location a) place just outside / beside Kitchen area b) In proximity of & with access to the commercial FoodWaste mixie				
@ PLANT SITE	STEP 2: Slurry to biogas & liquid fertilizer				
Max. Cemented / Paved area free of encumbrances for location and installation of biogas digester within 100-200 meters of Kitchen and with uninterrupted access for slurry & biogas pipeline	Calculation includes buffer in case both steps 1 and 2 are to be carried out here (due to customer preference, lack of space in and around Kitchen or/and prohibitively long distance between kitchen & plant site)	2.65 m x 4.8 m = 13 sq. m	2.65 m x 14.5 m = 38 sq. m	5.3 m x 14.5 m = 76 sq. m	5.3 m x 19.2 m = 100 sq. m
+					
Food waste transport & disposal cost savings					
Usable biogas in terms of commercial LPG Cylinders per year		50	125	250	500
Usable liquid fertilizer in m3 per year		60	150	300	600
Carbon abatement potential in tCO2e per year		20	50	100	200