

SUB: OFFER FOR RAIECO FULLY AUTOMATIC OWC MACHINE 1000 kg/day

We thank you for your inquiry about the above project for the treatment of organic waste. We wish to introduce ourselves as one of the leading manufacturers and resellers in the design, supply, erection, and commissioning of water, wastewater, and solid waste treatment and management systems.

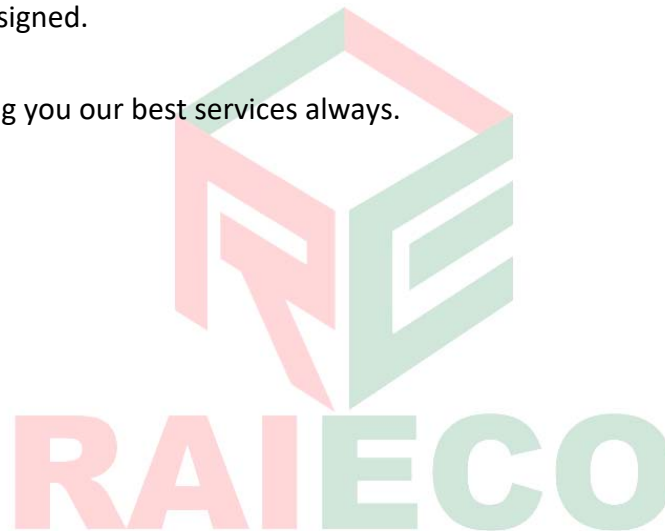
We are also consultants and liaisons for the state pollution control board for Orange, Green, and White categories CTE and CTO. Our focus has been to understand the customer requirements, offer the most appropriate solutions at a reasonable price.

We are now pleased to enclose our proposal for a fully automatic organic waste compost machine for 1000 kg/day

We hope you will find our proposal in line with your requirement. In case you desire any clarification, please contact the undersigned.

Thanking you and assuring you our best services always.

Yours Sincerely,



INTRODUCTION

- The waste generated is from the company's mess, kitchen and other organic waste produced activities. The waste shall be treated in automatic organic waste compost machine.
- Keeping in view the site requirements, it has been decided to have OWC for **1000 kg/day**
- The present offer is for design, supply, erection, installation and commissioning of RAIECO Organic Waste Compost Machine (RAIECO-OWC) of capacity 1000 kg/day.

KEY FEATURE OF RAIECO-OWC

Introducing India's first most advanced, compact and fully Automated Organic Waste Converter, operational features of the machines are as follows:

- Fully Automatic
- Composts all types of food including chicken and fish bones, egg shells etc.
- Low noise
- Part time labor/ process handling
- 75-80% volume reduction
- Very low OPEX
- Low floor space/compact
- No pathogens, safe for human handling
- No foul smell, no rats/insects/flies
- Very good aesthetics
- Continuous composting
- Stainless steel tank, life of 20+ yrs.
- Overload function-Machine comes to a halt in case of overload
- Indicators are provided for power mode, heater & power saving mode
- Internal mixing blades automatically stop when compost removal door is opened

PROCESS OF RAIECO-OWC

- Micro-organisms in our incubator feed on the organic matter and convert it into compost. Critical factors like temperature, moisture, and oxygen are optimized for the bacteria to thrive and compost the organic/food waste at a very fast pace.
- Moisture and temperature are automatically regulated using sensors at the bottom of the tank whenever organic waste is added.
- Fully aerobic digestion is facilitated by the periodic and intermittent rotation of the mixing blades (no crushing/grinding) to maximize microbe activation.
- The actual decomposition is done by our special 'thermophilic' microorganisms which thrive in high temperature & high acidic or salty atmospheres.
- The composted manure goes back as manure for our garden and farm feeds.

Composting method	Micro-organisms based natural composting
Treatable items	Vegetables, Fish, bread, curry, roti, meat, garden waste & others compostable organic biomass
Untreatable items	Metal waste, plastic, glass, big bones, large shells, petrochemicals, stones
Processing time	Most organic items are composted in 24 – 48 hours
Removal of compost	Can be removed after the process of 24 hours.
Use of output	Can be used in Gardens directly, after mixing with soil in 1:10 ratio, must be matured if used in farms for food
Water discharge	None
Gas discharge	No harmful discharge; only water vapor

RECOMMENDATIONS

- ✓ Compost from the machine should be mixed with soil in the ratio of 1:10, before using as manure. Additional nutrients may need to be reinforced if used for food farming.
- ✓ Dry garden waste should be moistened to facilitate composting. Care should be taken to only moisten the waste and not make it dripping wet.
- ✓ Garden waste should be shredded additionally for better results. Large stems, barks, etc. must be shredded before being fed into the composter. Can be supplied at an additional cost based on the capacity and model.

PROCESSING TECHNOLOGY (TECHNICAL SPECIFICATIONS, SCIENTIFIC INFORMATION)

Operation	Fully Automatic
Output	Organic manure
Installation requirements	Almost plug and play. Vent to be connected outdoors or storm water lines. No need of water inlet. Water may be required, only to clean the machine externals and any spilled waste
Composting tank	SS 304
Housing	SS 202
Structural Frame	MS Channels
Input/output	Door for waste input and separate door for getting out compost
Heater	Insulated oil heating chamber or heating pads as a variant
Other features	<p>Provided with waste overload function</p> <p>Indicators for power mode heater and power saving mode</p> <p>SS 202 shaft and SS 304 mixing blades</p> <p>Safety feature- internal mixing blades automatically stop when hopper door is opened (in auto mode)</p> <p>Can be run in auto mode or manual mode</p> <p>Internal shaft turns and sends out the compost, when the compost door is opened</p>
Doors	Separate door for waste input and separate door for compost removal
Preferred location for installation	Can be a garden, area adjacent to garden, car park, preferably with a connection to the drainage.
Warranty	1 year with manufacturer's warranty. Extended warranty also with AMC
Life of the machine	Expected around 20-25 years in normal condition



SPECIFICATION OF MACHINE

S.N.	PARTICULARS	DETAILS
1.	Model	RAIECO-1000 kg/day
2.	Capacity	1000 kg/day
3.	Type	Fully Automatic
4.	Technology	E-aerobic
5.	Operation Type	Automatic
6.	Time required to compost	24 hours
7.	Brim Capacity	6500 liters
8.	Waste Mixing Chamber	SS 304
9.	Mixing Blades	SS 304
10.	Outer Body	SS 202
11.	Shaft	SS 202
12.	Shredder hopper	SS 202
13.	Shredder Blade	MS
14.	Structural Frame	MS channels
15.	Control Panel Make	L&T/Siemen/In-House or Reputed Any
16.	Mixer Motor Make	Crompton/Lubi/REMI/Havells/any ISI
17.	Shredder Motor Make	Crompton/Lubi/REMI/Havells/any ISI
18.	Heater Make	Havells/Syska/any ISI
19.	Gear Box Make	BONVARIO/Hindustan/EQV.
20.	Bearing Make	SKF/NTN/EQV.
21.	Mixer Motor Power Rating	8-10HP
22.	Shredder Motor Power Rating	6-8 HP
23.	Heater (4 Nos: 2W+2S)	6 kW
24.	Numbers of Heating element	6 Nos. (3W+3S)
25.	Exhaust Fan	0.50 kW
26.	Blower	0.50 kW
27.	Input Door Opening	(1.2 X 1.2) feet
28.	Output Door	(1.0 X 1.0) feet
29.	Approx. space requirement	250 Sq. Feet
30.	Dimension	Aprox (14 X 8 X7.75) Ft
31.	Power Rating	26.5~kWh
32.	Power Consumption	Aprox.100-105 units per day
33.	Mount Type	Wheels/Pads
34.	Make	RAIECO

COMMERCIAL PRICE, TERMS AND CONDITIONS

1. PRICE: For RAIECO-OWC 1000 kg/day with inbuilt shredder will be rupees:

S.N.	PARTICULAR	QTY.	AMOUNT
1.	RAIECO-OWC 1000 kg/day fully automatic With Inbuilt shredder	1 No.	12,02,500/-
2.	Installation Charges.		20,000/-
TOTAL			12,22,500/-

2. PAYMENT TERMS:

- 50% in advance with Purchase Order.
- 50% against P.I. before dispatch.

3. TAXES, DUTIES & LEVIES:

- GST charges are **extra**.
- Octroi, Freight and Transit Insurance are **extra** as actual.

4. DELIVERY/COMPLETION PERIOD:

- Machine shall be supplied within 5-6 weeks from the date of acknowledgement of duly signed PO/WO/LOI along with advance.
- The above delivery date has been considered on assumption that No Material Approval Report (MAR) is required during design & engineering stage. If in case MAR is required by client/consultant, then delivery period shall be effective from the date of approval of MAR.

The timelines mentioned as above in regard to Supply, Installation & Commissioning shall be subject to Force Majeure conditions (which includes non-availability of any material due to Strikes, Lockouts, Slow Down, any act of war or enemy action or natural calamities (includes bad weather conditions etc.) or any act of god or as a result of any notice, decree, order, rule, notification or order of the court or any competent, regulatory authority) and shall not lead any financial repercussions on the seller.

5. RETURN OF EXCESS MATERIAL:

In order to facilitate the Installation & Commissioning, we sometimes send extra material while dispatching the material. Once the Installation/Commissioning is over, we reserve the option to take back unused material and customer shall have no lien on such material unless any extra quantities have been supplied for stand by working/performance of the equipment/plant.

6. GUARANTEE/WARRANTY:

- 1-year OEM manufacture warranty from company.
- Fabrication defect or any leakage is in RAIECO scope.
- Trouble shooting & rectification of electrical, electronic & motor defect faults are in RAIECO Scope.
- Warranty will not cover any physical damage. (Subject to feed any unwanted material like stones, bricks, glass, heavy metals or any non-organic material like plastic, paper etc.)

Note: -

- Warranty will be start after first installation. (Installation shall be done within 10 days of delivery).
- We will reinstall and provide operational training of machine as or when required after first installation.

DO'S & DON'TS

- DON'T add hard/sharp materials like coconut shells, metal and stones, or sharp tools. They will damage the plates and the tank.
- DON'T feed any non-organic materials like papers, plastics.
- DON'T operate shredder all the time, It should be run only at the time of feeding.
- DO clear your compost, once it reaches the red level. Excess compost might enter the motor assembly and spoil the motor.
- DO maintain the optimum quantity of wet waste recommended for your machine. Larger than the recommended quantity will overload the machine and result in damage of the heater and compromise on the quantity of compost.
- DO place a buffer of 3-6 days on composting of pure garden waste since they are drier than typical food waste.
- DO oiling and greasing of bearings, gear boxes in every 6 months.
- FEED water in case of dry organic waste like garden waste.
- FEED saw dust in case of high moisture available in organic waste.

WORK REQUIRED BEFORE INSTALLATION (CLIENT SCOPE)

- Shed for machine.
- Foundation for machine.
- Water taps nearby machine.
- Exhaust fan in OWC area.
- Earthing and Electrical point nearby machine.
- Provide electrical point through servo stabilizer to avoid electrical fluctuation.
- Drain point nearby machine.
- Related accessories like waste Bin/Pits, Bucket, shovels, mask, apron, gloves etc.