

# Greeneria<sup>®</sup>

## AUTOMATIC ORGANIC WASTE COMPOSTING MACHINE



**Nourish. Nurture. Nature**



An innovation from Aruna Green Ventures Pvt. Ltd







# Greeneria<sup>®</sup>

Leachate, a byproduct of waste dumping into landfills, seeps into water tables leaving them permanently polluted. Precious reserves of water are thus made non-potable. Scientific in-situ processing of waste can ensure a healthy environment and clean water promise for the future generation.

**INTRODUCING INDIA'S FIRST MOST ADVANCED, COMPACT AND FULLY AUTOMATIC ORGANIC WASTE CONVERTER IN INDIA!**



With a footprint of less than a car park, this highly compact solution tends to over 500+ apartments! Unbelievable but true!

CONTACT US AT +91.8861.075.555 or +91.8861.035.555



## ADVANTAGES OVER OTHER OWC SOLUTIONS

-  **Decentralized Waste Management Solution.**
-  **AESTHETIC DESIGN:** Designed to please aesthetic appeals.
-  **SMALL FOOT PRINT:** Less than a single car park for a 250kg unit that caters to 500+ apartments/houses.
-  **REDUCED LABOR COST:** Part time labor requirement reduces ongoing costs.
-  **SAFE HANDLING:** No pathogens due to operations in high temperature thereby reducing health risks significantly.
-  **REDUCED RECYCLE TIME:** Waste to manure duration is 1-3 days vis-a-vis traditional composting methods that require about 20-22 days.
-  **REDUCED TRANSPORT COSTS:** In-situ processing eliminates transport costs.
-  **HASSLE FREE OPERATION:** No multi-step process. Provide the input, plug & play!
-  **NO RECURRING COSTS:** No refurbishing of bio-catalysts and saw dust. Our machines are provisioned with it.
-  **RODENT PROOF:** Designed to keep rodents at bay.
-  **NON-ODOUROUS-** Cleanest with negligible odour.
-  **LONG TERM SOLUTION:** 25-30 years lifespan.
-  **MAINTENANCE/SUPPORT:** Warranties and AMCs to ensure 24x7, 365 days of uninterrupted operation.



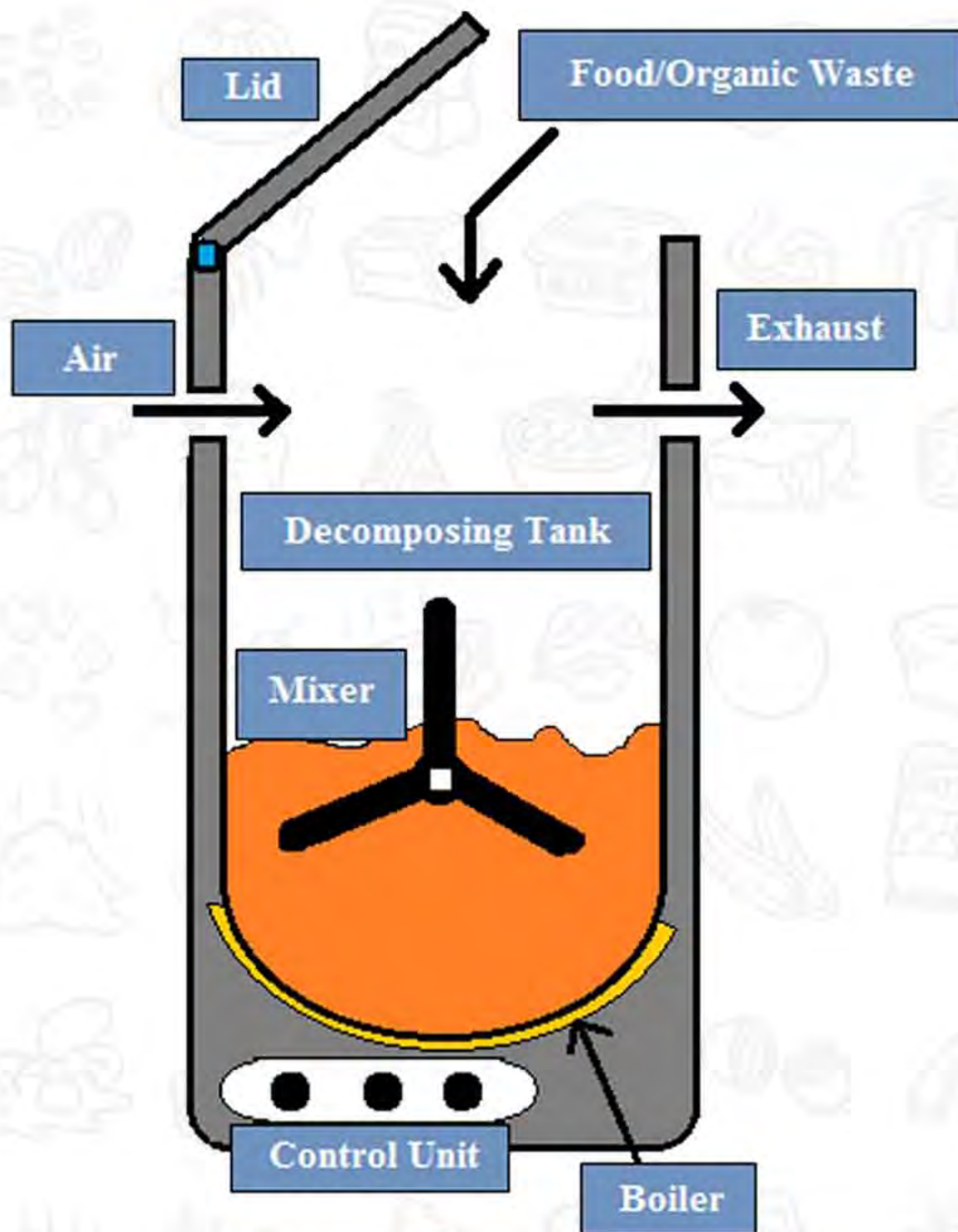


FIG: WORKING OF A TYPICAL OWC

🌱 Micro-organisms in our incubator feed on the organic matter and convert it into compost. Critical factors like temperature, moisture and oxygen are optimised 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 needs.






# Comparison of Various Waste Processing Techniques





	PARAMETERS	COMPOSTING			
		AUTOMATIC OWC	VERMICOMPOSTING	BATCH TYPE OWC	BIOGAS
PROCESS	TECHNOLOGY	Special micro-organisms developed using advanced technology break down waste to compost within 24 hours	Composting aided by earthworms in specially designed underground pits	Just a crushing grinding mechanism. Requires addition of bio-culture and storage for 15 days to convert to compost	Biogas contains methane & CO <sub>2</sub> . Produced by anaerobic digestion of organic waste
	PROBLEMS IN SHORT	Apart from overload damaging the blades there are no inherent problems	Constraints on space, cannot process heavy bio waste, highly labor intensive, odorous, unhygienic, time consuming, problems of insects & rodents	Vermicompost problems + heavy maintenance	Vermicompost problems + heavy maintenance
	OPERATION & LABOUR	Fill it. Shut it. Forget it!!	Heavily labor intensive	Labor intensive – involves crushing, mixing, storage and humidification	Labor intensive – continuous monitoring, removal of sludge and pressure checks
	REPLENISHING MICRO-ORGANISM.BIOCULTURE & SAWDUST	NEVER	NA	Addition of sawdust and bio-culture for every crushed lot	NA
	VOLUME REDUCTION	90% reduction in weight (100kgs waste ~ 10/15kg compost)	40% reduction in weight (100kgs waste ~ produces 60kg compost)	50% reduction in weight (100kg waste ~ produces 50kg compost) 1500kg compost/month yields utilization and storage problems	60% reduction in weight (100kg waste ~ produces 40kg compost) 1200kg compost/month yields utilization and storage problems
	SKILLED LABOUR REQ	NA	Low	Medium to high	Medium to high
	CONSTANT MONITORING	NA	Very high	High. Storage and humidification	High
	TIME FOR COMPOSTING	24 hours	60-90 days	15 days	NA
	RESTRICTION ON WASTE PROCESSING	Even tough bio wastes like meat & bones get degraded in 2/3 days	Cannot process non-veg food, oily and spicy food	Can process heavy bio waste like bones and others. Takes 30+ days for degradation to compost	Cannot process egg shells, fish, chicken & mutton bones, fruit peels, etc.
	COMPOST REMOVAL	Once in 10/15 days	Periodically	Daily	Daily
LOOKS & HYGIENE	QUALITY OF COMPOST	High quality compost	Good if managed well	Quality depends on the quality of human intervention, addition of proper/timely bio-culture, water etc	Slurry cant be used directly for plants but only after composting. Mediocre to good as there are many parameters that decide the quality
	ODOUR	No Odour	Heavily mal-odorous	Odorous if not managed properly	Odorous if not managed properly
	PROBLEMS OF INSECTS & RODENTS	NA	Insects and rodent magnet!	Flies, rats, insects hover near the stack of trays filled with compost during the curing process	Insects and flies problem if not managed properly
	QUALITY/DURABILITY	Highly durable	NA	Frequent Breakdowns	NA
COSTS	AESTHETICS	Brightly coloured	Not pleasant	Average	Not pleasant
	OPERATING EXPENSE	INR 0.75/kg of waste. No other costs	INR 2-5/kg on maintenance, bioculture, dry leaves + labor	INR 3-5/kg as labor, sawdust, bio-culture, water, maintenance costs	Labor costs offset by use of biogas
	CAPITAL INVESTMENT	Shortest ROI	Low	Moderate	Moderate
	SPACE REQ	One car park or less	Pits require huge space	Huge space requirement	Huge space requirement
	INSTALLATION	Plug & Play with a drainage provision	15-25 days	2-3 days	25-30 days



## 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.

## DOS' & DONTs'

-  DONT add hard/sharp materials like coconut shells, large animal bones, metal and stones, or sharp tools. They will damage the plates and the tank.
-  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 quality of compost.
-  DO place a buffer of 3-6 days on composting of pure garden waste since they are drier than typical food waste.



## THE PROCESS

COMPOSTING METHOD	MICRO-ORGANISM BASED NATURAL COMPOSTING
Treatable items	Vegetables, Fish, Bread, curry, roti, meat, animal bones, garden waste & other 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	Required once in 8 to 10 days. Though compost is formed in 24 – 48 hours, such prolonged processing helps in maturing
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.
Leach ate/ water Discharge	None
Gas discharge	No harmful discharge; Only water vapour .

## TECHNICAL SPECIFICATION

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.
CONTROL SYSTEMS	PLC Based
COMPOSTING TANK	SS
HOUSING	M.S with Powder coating or SS panels as a variant.
INPUT/OUTPUT	Door for waste input Separate door for getting out compost
HEATER	Insulated oil heating chamber or Heating pads as a variant.
OTHER FEATURES	<ul style="list-style-type: none"> <li>• Provided with waste overload function</li> <li>• Indicators for Power mode, heater &amp; power saving mode</li> <li>• Stainless steel (SS304 ) shaft &amp; mixing blades</li> <li>• Safety feature: Internal mixing blades automatically stop when hopper door is opened ( in auto mode)</li> <li>• Can be run in auto mode or manual mode</li> <li>• Internal shaft turns and sends out the compost , when the compost door is opened</li> </ul>
DOORS	Separate door for waste input & 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 25 years.



Approx. Dimension: 15 x 6.6 x 10.4 ft



# Greeneria®

MODEL: G - 500

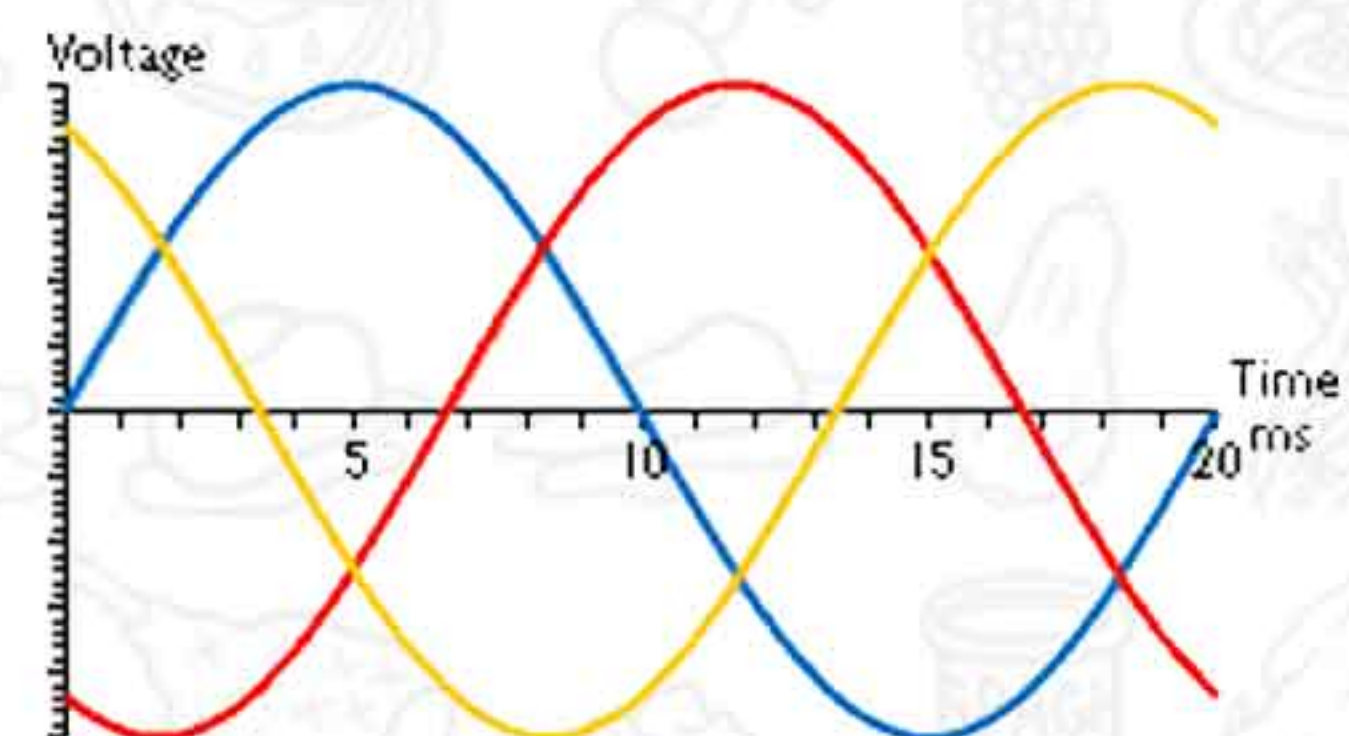


Approx. Dimension: 10.9 x 4.8 x 6.5 ft

MODEL: G - 250



Approx. Dimension: 7.6 x 3.9 x 5 ft



Three Phase Power Supply



# product range

Approx. Dimension: 3.6 x 1.7 x 3.1 ft

**MODEL: G - 40**



 1.35KW

**Per day waste processing capacity : Upto 40kgs**

**MODEL: G - 100**



 3.1KW

**Per day waste processing capacity : Upto 100kgs**

Approx. Dimension: 5.7 x 2.4 x 3.8 ft

**MODEL: G - 150**



 4.8KW

**Per day waste processing capacity : Upto 150kgs**

Approx. Dimension: 6.1 x 2.9 x 4.2 ft

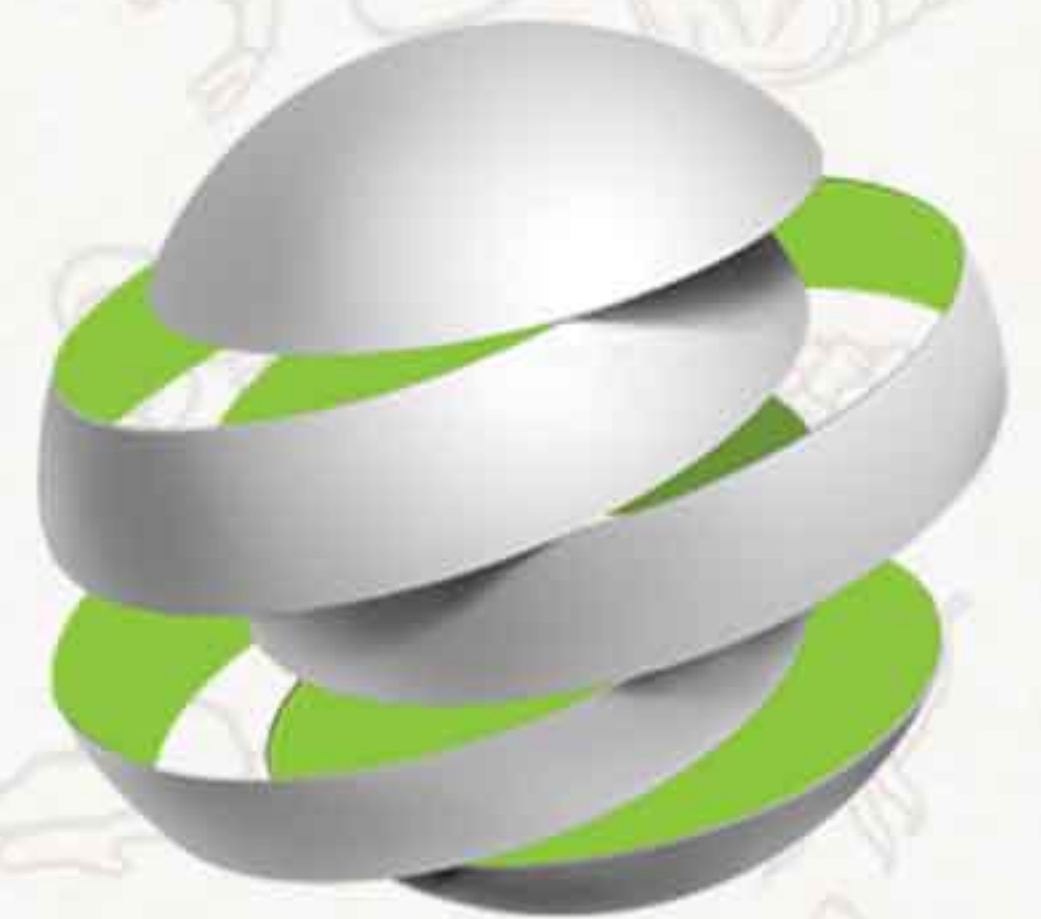
Customization option available after due diligence and discussion. Please get in touch with us for more details on the same.



WASTE MANAGEMENT  
DECENTRALIZED & DEMYSTIFIED

Greeneria<sup>®</sup>

India's most advanced automatic  
organic waste composting machine.



Aruna Green Ventures Pvt Ltd.

Nourish. Nurture. Nature

No:581, 30th main, Banashankari III Stage, Bangalore - 560085

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## **Aruna Green Ventures Pvt Ltd.,**

#581 30th Main, Survey 17 Kathriguppe, Banashankari 3rd Stage, Bangalore - 560 085.

Contact : Mr. S. R. Kumar    Mobile: 91-88619 21167 / 88610 75555

### **GREENERIA COMMERCIAL QUOTE FOR G75,G125 & G250**

<b>Model</b>	<b>G75</b>
	To process upto 75 kgs of organic waste per day
<b>Unit Price</b>	Rs. 6,50,000.00 (Six Lakhs and Fifty Thousand Only)
<b>Discounted Price</b>	Rs. 5,85,000.00 (Five Lakhs and Eighty Five Thousand Only)
	<i>Lifespan of our machine is 25-30 years</i>
<b>Model</b>	<b>G125</b>
	To process upto 125 kgs of organic waste per day
<b>Unit Price</b>	Rs. 9,50,000.00 (Nine Lakhs and Fifty Thousand Only)
<b>Discounted Price</b>	Rs. 8,55,000.00 (Eight Lakhs and Fifty Five Thousand Only)
	<i>Lifespan of our machine is 25-30 years</i>
<b>Model</b>	<b>G250</b>
	To process upto 250 kgs of organic waste per day
<b>Unit Price</b>	Rs. 12,50,000.00 (Twelve Lakhs and Fifty Thousand Only)
<b>Discounted Price</b>	Rs. 11,25,000.00 (Eleven Lakhs and Twenty Five Thousand Only)
	<i>Lifespan of our machine is 25-30 years</i>
<b>Taxes/ Exclusions</b>	VAT @ 5.5 Applicable
<b>Terms of Payment</b>	50% advance
	40% on delivery
	10% on commission and installation
<b>Delivery</b>	2 weeks from the date of Purchase Order (durantion can be shortened)
<b>Warranty</b>	1 year from the date of Delivery.
<b>Validity of Offer</b>	30 days from the date of this quotation
<b>Others</b>	Cheques/ Payment/ Purchase Order should be in the name of Aruna Green Ventures Pvt. Ltd. payable in Bangalore.

We trust, you find the above in order & look forward for your valuable order.

Thanking you and assuring you of best services.

**Sincerely,**

**S.R.Kumar**

**Director**

91-88619 21167