



MEC *ClearWaste™*
Restoring Nature

MEC ClearWaste™

February 2022

ABOUT US

MEC is an international green technology firm committed to solving the challenges of eco-friendly solid waste management with the ClearWaste™.

The ClearWaste™ converts solid waste into recyclable ash that accounts for only 1-4% of the inputted waste. The ClearWaste™ requires only the electricity of an average home to drive its state of the art thermal decomposition process. It can therefore be used without any fossil fuels. It also releases no harmful emissions. Its small footprint (about the size of a minivan) and trailer-mounted capabilities make it the perfect solution for at-source waste treatment reducing transportation costs, particularly for remote areas.

MEC ClearWaste™'s success stories include partnerships with local governments in the densest municipalities of India and Bangladesh for solid non-recyclable plastic waste treatment.



210 KG/HR (*5.0 TON/DAY)



No fossil fuels



No harmful emissions



Compact and modular



Mobile, plug and play



Safe and user friendly



24/7 operation

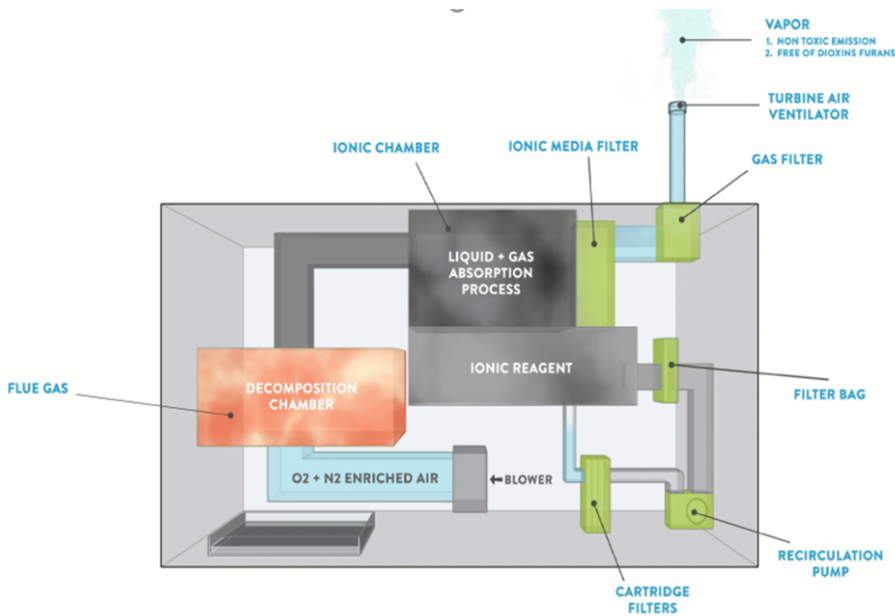


Remote monitoring



Real-time emission
monitoring

THE TECHNOLOGY



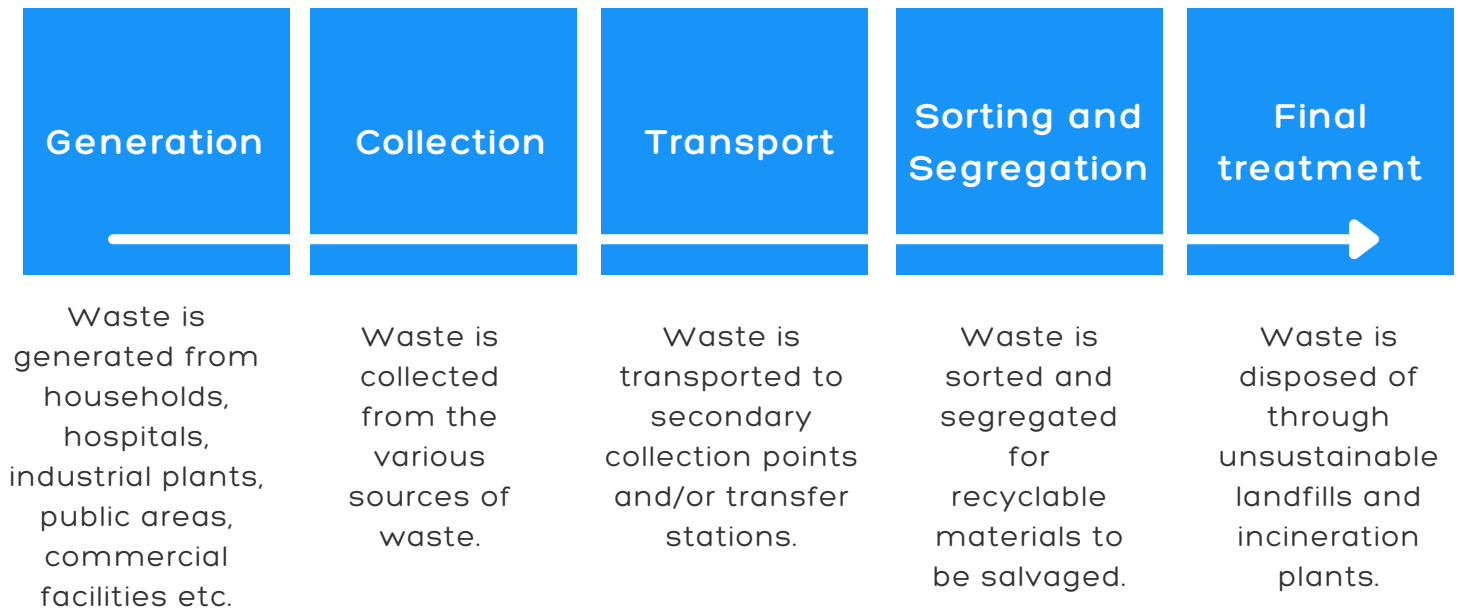
- The MEC ClearWaste™ breakthrough piezo-electret engine creates Plasma state conditions in the reactor without additional energy.
- In Plasma state, rapid complex reactions disintegrate carbonaceous waste into elemental fragments in an auto thermal equilibrium exothermic process.
- Recovered energy powers pre- and post-treatment equipment requirements, creating a closed-loop environmentally friendly solution.




AN ANSWER FOR A CLEANER, GREENER TOMORROW.

- MEC ClearWaste™ is on the cutting edge of clean and efficient conversion technology. The MEC ClearWaste™ process is a more efficient, more reliable, and less capital-intensive method to eliminate municipal solid waste without using any fuel or gas. The by-products, i.e., ash, can be recycled into construction and building materials.
- MEC ClearWaste™ can be placed at the site of waste production as it only occupies a small working area without the need to transport to landfills or incinerators. This could effectively render landfills a thing of the past.
- MEC ClearWaste™ reduces greenhouse gas emissions in two ways.
 - First, MEC ClearWaste™ process produces far lower CO₂ and NO_x emissions compared to an incinerator.
 - Second, landfills are a major source of methane emissions which, on a pound for pound basis, produces 21 times more greenhouse gases than the CO₂ that is used in the MEC ClearWaste™ process.

THE PROBLEM

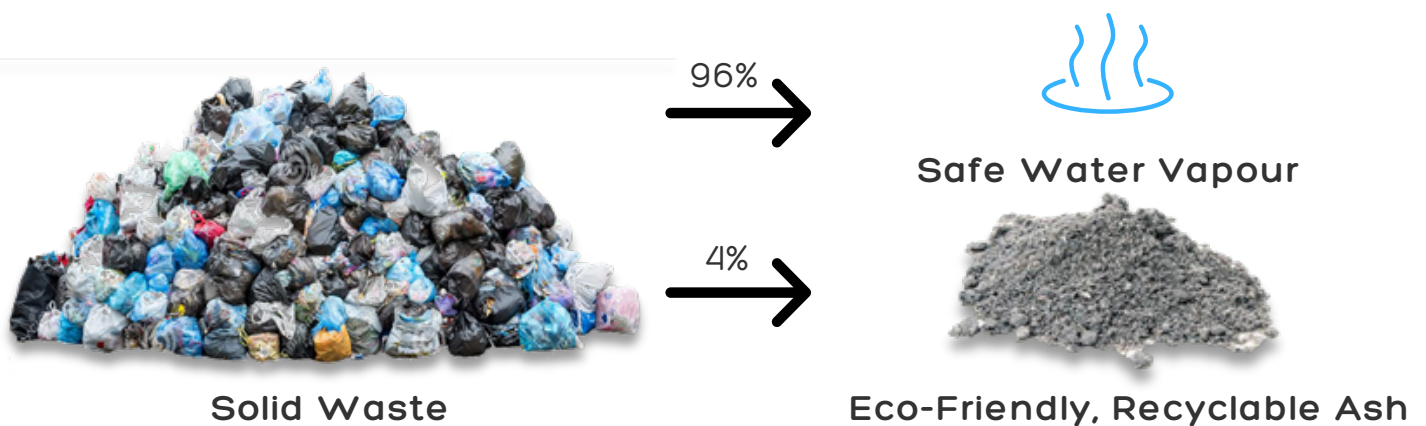
Conventional Waste Management



The process is  costly  long  labour-intensive  pollution-prone

THE SOLUTION

MEC CLEARWASTE™ treats TRASH into ASH



- A single unit can treat **5 tonnes of waste a day**.
- It requires **no fuel, diesel or gas**, using only electricity to power its 2 blower fans, 1 exhaust fan and 1 recirculation pump.
- Its emissions are all non-toxic, and **environmentally-friendly**, with minimal odour
- Maintenance cost is limited to filtration media changes
- Commissioning takes only 2 days
- The machine **can operate 24/7**
- Its **small footprint** of 65 square metres and trailer-mounted option which enables on-site and mobile waste processing

CLEARWASTE™ IN ACTION

DHAKA, BANGLADESH

Community Solid Waste Management (Unit: CW 2.50E)



- In partnership with South Dhaka Authorities, we set up a community-based modern disposal site to treat local waste at-source.
- Our units are being placed in localised community-based disposal centres as an end-all solution to street waste and incoming waste from surrounding areas.

MUMBAI, INDIA

Solid Waste Treatment at Transfer Station (Unit: 5.00E)



- In partnership with Brihan-Mumbai Municipal Corporation (BMC), we are diverting waste from landfills, and countless of dumping grounds through deploying our units in Transfer Stations across Mumbai. In doing this, we reduce costs and CO2 emissions across Mumbai's waste management chain
- Our units are being deployed at Transfer Stations at source to reduce and prevent waste from going to landfills and incineration plants.

CLEARWASTE™ IN ACTION

CHENNAI, INDIA

Mobile Solid Waste Management (Unit: 5.00E- Containerised and Trailer Mounted)



- We are working alongside Greater Chennai Corporation (GCC) to collect and treat waste generated in suburban communities and public events.
- For this application, we developed mobile units for quick and efficient collection and disposal of waste on-the-go.
- The mobility of the units enable wide coverage of collection points, providing a waste treatment solution in areas and instances where there was none.

MINISTRY OF HEALTH, MALAYSIA

Clinical Waste Reduction in Malaysia (Unit: CW 5.00E)



- Requested by Ministry of Health Malaysia to aid in Covid-19 clinical waste treatment.
- Unit has successfully treated all types Clinical Waste (Non Body Tissue) including COVID infected waste like PPE, masks, sharps, all kinds of contaminated wastes such as food containers from Hospitals and Covid-19 Quarantine centres.

LET'S START OUR CLEANER, GREENER TOMORROW TODAY

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