



**MEDVEDA**  
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OMNISCIENCE PVT LTD



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**Medveda Omniscience is engaged in providing solution for waste management, waste disposal and waste recycling. Medveda Omniscience takes great pride in bringing to India one of the most advanced, cost effective, compact and easy to operate Solid Waste disposal system that uses state-of-the art technology which is being used in various countries including India. The machine proposed has features like self-generated power, low on emissions, requires no segregation and minimum land requirement.**

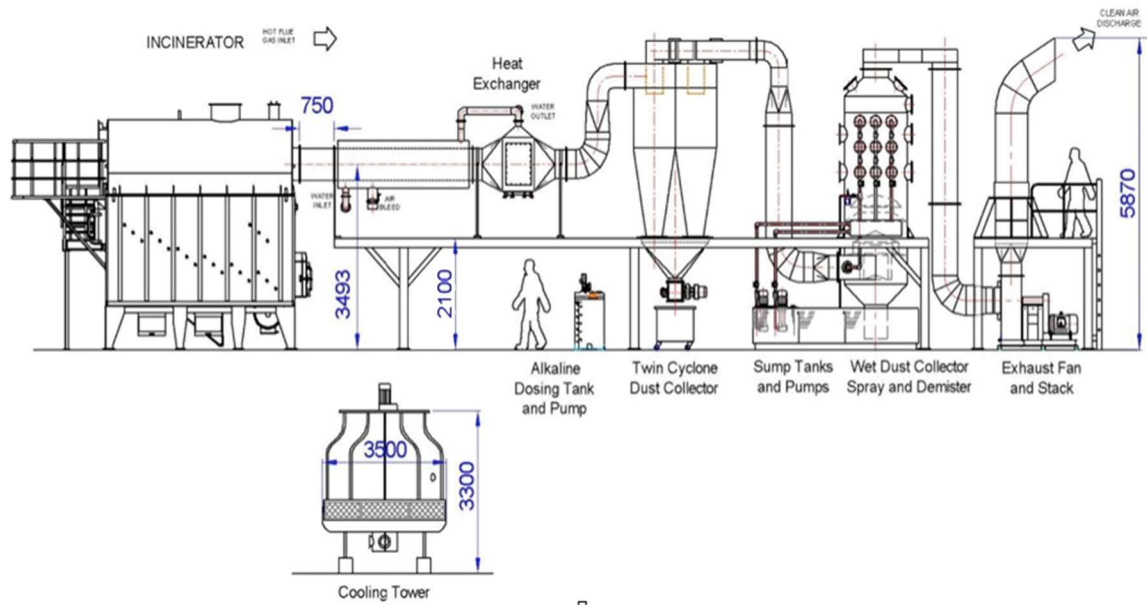
## **TECHNOLOGY**

**Some of the key features of the system are as below:**

- 1) Methodology- Operates at 800-1500 Degree C temperature with patented components.**
- 2) Self-Powered – Neither a fuel or power source is required for this combustion process.**
- 3) Small Footprint – Only a small area is required to deploy the system as compared to incinerators and hence being able to be in close proximity to the waste source.**
- 4) Quick and Fast- Decomposition of waste for a single load takes place within minutes.**
- 5) Decomposition at source- Decentralized and scientific method of disposal which avoids costly logistics to transport the waste to landfill.**
- 6) Electricity generation – It can Produces electricity in the most efficient way using high powered turbines.**
- 7) Less Pollutions, No flame, less Dioxins: Does not produce any flames, thus the generation of dioxins and other poisonous gases are eliminated, even when plastic and PVC are processed.**
- 8) By-products- Ceramic Ash- Can be recycled to use for construction of buildings, bricks and tiles. Bitumen- Can be recycled to use for road construction and water proofing.**
- 9) High Ceramic content refractory- Insulation coating compound containing high percentage (63%). Ceramic applied over inner walls of chamber to protect from corrosion and erosion.**



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# Advantages

- **Portability/Size** – Its small size and mobility greatly reduce the cost of transporting and storing waste. BlackHOLE® can be set up at a transfer station, land-fill, manufacturer, scrapping/shredding facility, processing plant/mill, hospital, entertainment venue, university, on a ship (commercial or military), or wherever waste is generated or collected, and transform virtually any matter down to its basic elements, right on site
- **Variable Sizes** – Machines range in size from as much as 1,000 tons/24 hours, down to 100kg/day. Multiple machines can easily operate in one location if tonnage demands
- **Significantly Lower Cost** – It is offered at a small fraction of the cost of competing technologies, including far lower operating & maintenance costs, compared with large processing facilities that burn waste
- **No Power** – Astonishingly, BlackHOLE® is self-sustaining and requires no external power or fuel to run continuously for weeks at a time
- **Full Automation (PlasmaTRON® version)** – There are no moving parts inside, and the machine requires very little maintenance. With the latest version, known as the PlasmaTRON®, there is no need for a large, costly plant run by many dozens of expensive, highly-trained staff; rather, the BlackHOLE® requires only a handful of hourly, non-technical manpower with one manager to feed a conveyor belt and watch over the simple operation
- **Carbon-Free Electricity (WTE)** – verified , profitable byproducts include over 65mwh of electricity (about as much as a nuclear power plant), valuable bio-oil, and high quality ceramic ash for use in brick and cement (unlike useless fly ash generated by incineration plants). See more on WTE capabilities below.
- **Zero-Emission/Carbon-Free** – There is no burning of waste, so it is smoke-free and odorless. The 100% clean emissions have been tested & verified by numerous environmental organizations to contain no nitrogen dioxide, sulfur dioxide, dioxins or furans
- **No Sorting** – Virtually all types of waste, Wet or Dry, can be fed into a BlackHOLE®, with no segregation required
- **Small Footprint** – Requires only the size of a large room, as opposed to a large facility
- **Low Temp** – Incinerators operate at high temperatures and require a costly secondary combustion system. BlackHOLE® does not require higher temperatures as it has the unique feature of Plasmic Decomposition.



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# **Type Of Waste Accepts**

**ANY WASTE, Wet or Dry!**

**Household Trash, All Plastics, All Paper, Wood**

**Light Bulbs, Computers, TVs, All Other E-Waste**

**Construction/Demolition Materials, Including Asbestos, Cement**

**Rubber/Tires, All Sized Batteries, Insulation and Styrofoam**

**Industrial Waste and Hazardous Chemicals**

**Medical Waste: Needles, Scalpels, Infectious Materials**

**Paint Cans, Soda Cans, All Other Aluminium**

**Heavier Metals Are Transformed Into Fine Ceramic Ash (not Fly Ash), It Simply**

**Takes Longer Inside The Machine**

**There are virtually NO limitations!**



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# Analysis Report of Source Emissions

	Permissible Range	12:30 - 1:30 PM	1:45 - 2:45 PM	3:00 - 4:00 PM	4:10 - 5:10 PM	5:25 - 6:25 PM
Particulate Matter (mg/Nm <sup>3</sup> )	50	20.9	24.6	26.9	30.4	28.7
Discharge Rate (Nm <sup>3</sup> /Hrs)	-NA-	398.7	435.7	518.4	431.8	394.9
Emission Rate (Kg/Hrs)	-NA-	0.008	0.01	0.01	0.01	0.01
Sulphur Dioxide (mg/Nm <sup>3</sup> )	200	5.2	7.8	10.4	13.0	15.7
Oxide of Nitrogen (mg/Nm <sup>3</sup> )	400	11.2	13.1	15.0	16.9	18.8
Carbonyl Monoxide (mg/Nm <sup>3</sup> )	100	1.3	1.5	2.1	1.2	1.1



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