

Plasma Pyrolysis Technology for Safe Disposal of Biomedical Waste



Plasma pyrolysis is a thermal disintegration process where organic mass is fragmented into hydrogen, CO and lower hydrocarbon in oxygen starved environment. Graphite based Plasma torch is used to produce high temperature (plasma core temperature $>5000^{\circ}\text{C}$) in the primary chamber by converting electrical energy into thermal energy in an efficient manner. Almost 99% of organic mass gets converted into combustible gases in this process. These combustible gases are useful fuel for heating application and can also be used for power generation. Unlike conventional incinerators, toxic molecules such as dioxins, furans, poly-aromatic hydrocarbons etc. are completely eliminated in Plasma pyrolysis. Hence; it is an environment friendly process for safe disposal of biomedical waste. Plasma pyrolysis is approved under the Gazette of India for safe disposal of BMW.

SALIENT FEATURES

- Thermal disintegration of waste at high temperature and in oxygen starved environment, plasma core temperature is more than 5000°C .
- All emissions are within the limit set by US-EPA and CPCB/MoEF&CC.
- Environment friendly process.
- MoEF&CC/CPCB approved home grown technology.

APPLICATIONS

- Plasma pyrolysis is approved for safe disposal of biomedical waste under BMW management rules 2016.

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