



## medical **WASTE DISPOSAL**

Medical centers, hospitals and veterinary clinics in the United States generate over one million tons of waste each year. Although the majority of this waste is as harmless as common household waste, as much as 15 percent of this waste poses a potential infection hazard, according to the Environmental Protection Agency (EPA). Medical waste, also referred to as clinical waste, has to be handled and disposed of in a proper manner to eliminate the possibility of injury or infection. Federal and state laws govern the disposal of medical waste, mandating specific methods to either package or sterilize the waste so that the waste does not affect people, animals, or the environment in negative ways.

The Medical WasteStation™ from Dynamis Energy is the solution for regulated medical waste disposal with favorable environmental performance for peace of mind for those in the medical waste industry.

The Medical WasteStation™ features ease of use and operation to assure cost effective



# medical waste market growth

Healthcare services are growing in demand due to an aging US population and rapid technology innovation. As this sector grows, so does the need for medical waste disposal. More hospitals will increasingly outsource waste disposal services, driving industry demand. Every hospital, outpatient facility, dentist office, veterinary facility, blood bank and medical research laboratory produces waste that cannot be recycled or disposed of as part of the municipal solid waste stream. A large portion of this waste is regulated medical waste (RMW), which may be contaminated by blood, body fluids or other potentially infectious materials. Typically, RMW is collected, treated and disposed of by private firms in the Medical Waste Disposal Services industry or treated on-site.

## Environmentally Sound Technology

### PROVEN THERMAL WASTE DESTRUCTION

The Medical WasteStation™ utilizes the Dynamis Energy patent pending two-stage process of batch gasification and thermal oxidation. The untreated waste is loaded into the unit where it is thermally reacted under controlled (air starved) conditions and transformed into combustible gases and ash. Unlike incineration or other thermal treatments the gasification reactions occur at relatively low temperatures. This minimizes the production of airborne “fly ash” particles, carryover of toxic metals, and Nox. The gasification process ensures 90-95% destruction of the waste and the by-product of ash is sterile with minimal residual carbon. To complete the process, the gases from the primary gasification chamber enter the secondary combustion chamber where they are mixed with oxygen (taken from ambient air) and oxidized at high temperature to complete the process.

### ENERGY PRODUCTION

The energy from the hot gas produced by the secondary combustion chamber can be recaptured for local heat, hot water, power, or other form of energy recovery including pre-heating existing boiler water.



### WASTESTATION FEATURES

- LOW OPERATING COSTS
- LOW MAINTENANCE COSTS
- SIMPLICITY OF OPERATIONS
- SAFE AND RELIABLE OPERATIONS
- MINIMAL FOOTPRINT
- AUTOMATIC CONTROL SYSTEM
- LARGE LOAD CAPACITY
- RELIABLE, PROVEN TECHNOLOGY
- ENERGY PRODUCTION OPTIONS



## MEDICAL WASTE STATION™

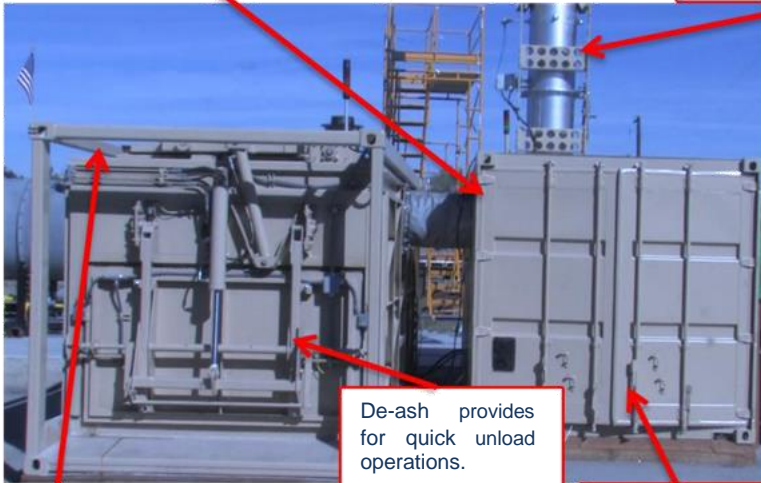
The Medical WasteStation™ has been designed to offer a complete solution for the medical waste disposal industry. The Medical WasteStation™ has been tested and independent ash tests have been performed to verify the destruction of organisms of concern to the medical industry as well as federal and local regulators.

## REGULATORY REQUIREMENTS FOR MEDICAL WASTE

Although the EPA does provide some oversight of medical waste storage and disposal, the majority of medical waste is regulated on a state or local level. Dynamis Energy will work with your staff to make certain the permit process for your jurisdiction is as painless as possible. Dynamis has independent ash tests available to verify the destruction of the concerned spore survivability.

Synthesis gas created from gasification process is combusted at temperatures up to 2200° F (1204° C) in the Secondary Combustion Chamber.

Stack installed on site and system is operational in a matter of hours.



De-ash provides for quick unload operations.

Automated process control system for ease of operations.

The process begins by loading the primary gasification chamber where it is processed for 8-12 hours at temperatures up to 1000° F (537° C).



## REMOTE MONITORING

The WasteStation can be monitored remotely via GSM Cellular or via the Internet using the standard ethernet connection available.

## ASSURED DESTRUCTION

Dynamis Energy provides destruction via thermal gasification of medical related waste including biohazards, pathogens and chemotherapeutic wastes for hospitals, pharmaceutical, biotechnology companies and research & development institutions. Destruction by thermal gasification ensures the greatest liability protection, and is the safest, most secure and most reliable method for disposing of bio hazardous medical waste.





## Medical WasteStation™

### THERMAL DEACTIVATION

Dynamis Energy provides destruction via thermal gasification of medical related waste including biohazards, pathogens and chemotherapeutic wastes for hospitals, pharmaceutical, biotechnology companies and research & development institutions. Destruction by thermal deactivation ensures the greatest liability protection, and is the safest, most secure and most reliable method for disposing of bio hazardous medical waste.



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