DYNAMIS ENERGY™

BOSS ALLIANCE
Energy Savings by Design

The WasteStation™

Portable Solid Waste Destruction

"On-site waste conversion eliminates costly waste hauling fees"

DYNAMIS ENERGY™

The WasteStation™ is an advanced thermal oxidation waste destruction system capable of handling up to 72* cubic yards of waste per day.

Why choose the WasteStation™?

Large Load Capacity
Each Waste Chamber has a large 18 cubic yard load capacity. Up to four waste chambers' can be combined to process up to 72 cubic yards per day..

Unique Portability and Deployment
The WasteStation™ can be quickly transported to any site and maneuvered into tight spots for very rapid deployment. It can be quickly and easily set up and operating in a matter of hours dependent on the number of chambers installed.

Simplicity of Operations
The unit is easy to use with its automatic operations control panel and process logic control system. It's as simple as loading waste into the unit and pushing a button.

Low Labor Operating Requirements
Because the system gets loaded once per day, the amount of time the operator is normally engaged in actual loading and operations is estimated at 2-3 hours.

Low Maintenance Requirements
The WasteStation™ has very few moving parts; greatly reducing maintenance requirements, thereby reducing the on-going cost of operation, increasing uptime.

Limited Material Handling
The WasteStation™ operates in a batch mode, reducing waste sorting or preparation to almost nothing. Limited sorting should occur to prevent large non-combustible items from entering the waste chamber.

On-site Waste Conversion

Eliminate Hauling and Tip Fees
A WasteStation on-site reduces expensive landfill tip fees and transportation costs, freeing up valuable resources that can be deployed elsewhere.

Safety Considerations
The overall safety objectives are to exceed generalized safety requirements for a global customer base. Automated and redundant safety features are integrated into the control technology along with appropriate lock out/tag out procedures.

Sturdy Rugged Construction
Built with high quality materials, the rugged modules are skid mounted and integrated into the container, offering reliability and stability to cope with the intense conditions that mobile deployment offers.

Broad Spectrum of Waste Streams
The WasteStation™ has been tested with a broad range of waste types, including the following:

- Municipal Solid Waste
- Industrial Waste (Solids)
- Commercial and Demolition Waste
- Medical Waste
- Tires
- Mixed Plastics
- Auto Fluff

* The WasteStation™ can accommodate up to four waste chambers offering up to 72 cubic yards of waste destruction per day.

WasteStation™ Specifications and Features

DYNAMIS ENERGY™

WasteStation™ Technical Specifications*

Power Requirement	480 VAC 3 Phase or 240 VAC 3 Phase or 208 VAC 3 Phase
Load Capacity	18 Cubic Yards / 13.762 Cubic Meters
External Dimensions Each Container	Length: 20 Feet / 6.096 Meters Width: 8.0 Feet / 2.438 Meters Height: 8.6 Feet / 2.621 Meters - Traveling 25 Feet / 7.62 Meters - Operating
Load Door Opening	Imperial: 160 in. wide by 54 in. deep Metric: 406.4 cm wide by 137.16 cm deep
Ash Door Opening	Imperial: 75 ½ in. wide by 31 in. tall Metric: 191.7 cm wide by 78.74 cm tall
Fuel	Natural Gas, Diesel, LPG, #2 Fuel Oil, JPT/JP8 Jet Fuel
Burners	Fully automatic, high efficiency burners with electronic ignition, flame recognition, and combustion control devices
Control System	Fully automatic state of the art process controls that incorporate digital displays for all major components to be monitored throughout each cycle.
Normal Operating Temperature Range - Primary	Imperial: 600-1200° Fahrenheit Metric: 315-648° Celsius
Normal Operating Temperature Range - Secondary	Imperial: 1,600-2,200° Fahrenheit Metric: 871-1204° Celsius
Ash Removal	Ash removal to an ashbin when the process is complete, ash is safely landfilled.
Connectivity	Ethernet, GSM Cellular (requires subscription)

*Exact dimensions and specifications are subject to change.

WasteStation™ Features

The WasteStation is the most efficient and environmentally friendly way to process bulk waste in remote or varied locations.

- Modular and Expandable
- Low Operating and Labor Costs
- Low Maintenance Costs
- Limited Material Handling
- Rapid Startup and Deployment
- Low Electrical consumption
- Fully Automatic Control System
- Large Top Load Door
- Minimal Visual Footprint
- Flexible Fuel Alternatives
- Rugged Durable High Quality Construction
- Environmentally Friendly
- Safe and Reliable Operations
- Low Noise
- Typical Ash Stream of 5-10% by Volume
- Reliable, Proven Technology
- Ease of Shipping
- 20 Year Life Expectancy

WasteStation™ Technology and Siting

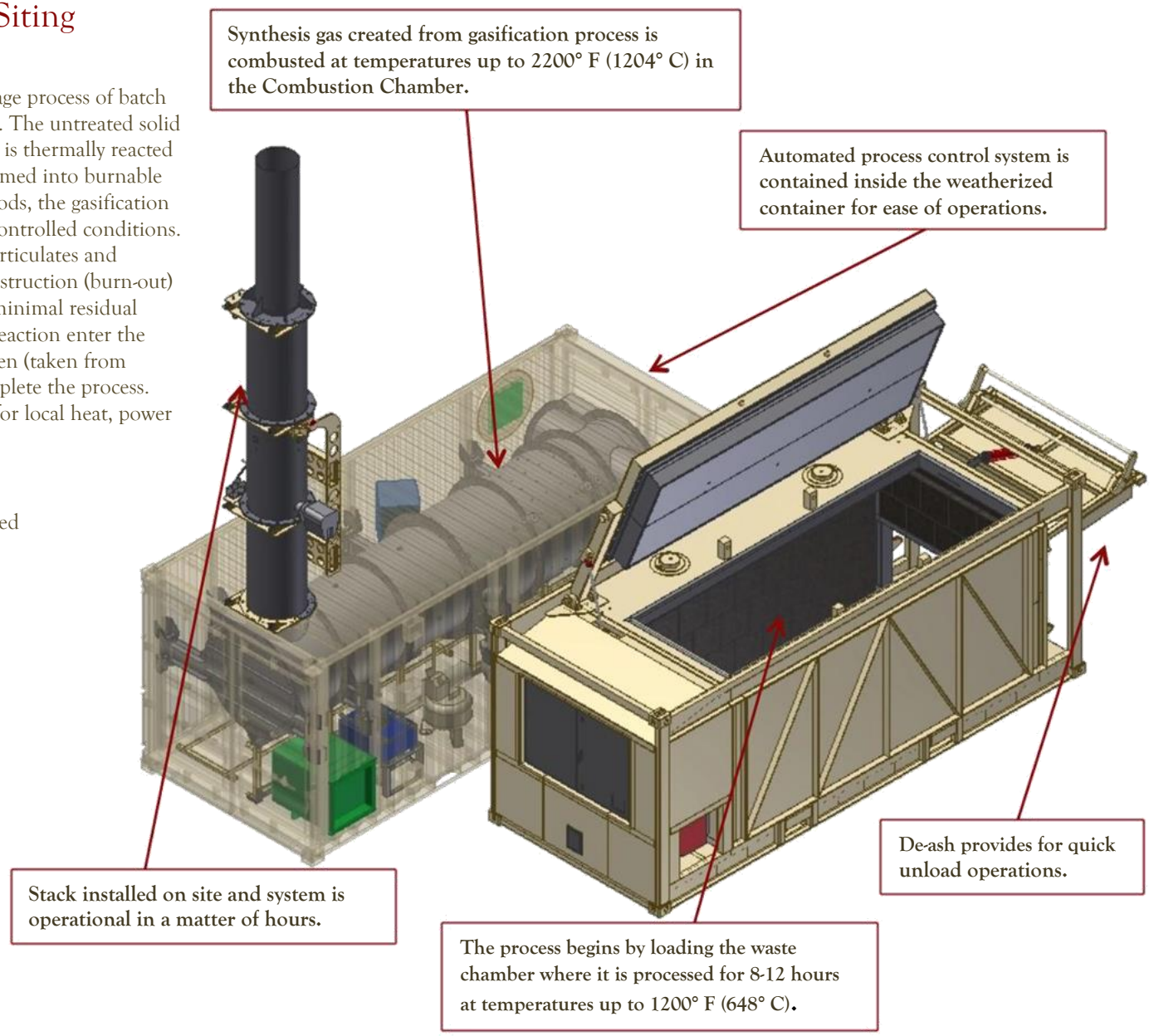
The Dynamis Energy Technology

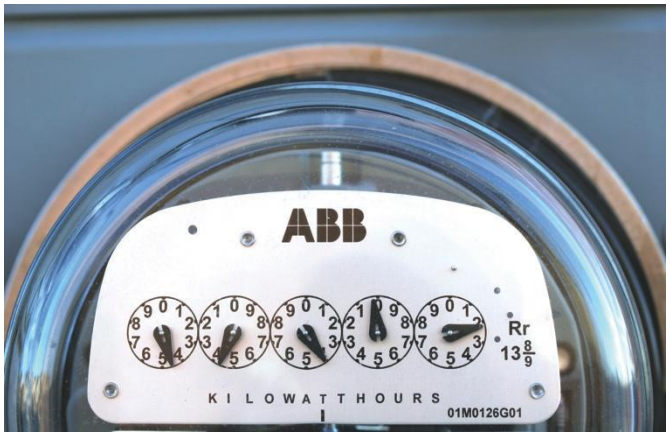
The WasteStation utilizes the Dynamis Energy two-stage process of batch waste gasification and thermal combustion/oxidation. The untreated solid waste is initially loaded into a waste chamber where it is thermally reacted under air controlled (starved) conditions and transformed into burnable gases and ash. Unlike typical thermal treatment methods, the gasification reactions occur at relatively low temperatures under controlled conditions. This minimizes the production of airborne 'fly ash' particulates and carryover. The gasification process ensures 90-95% destruction (burn-out) of the waste and the by-product of ash is sterile with minimal residual carbon. To complete the process, the gases from the reaction enter the combustion chamber where they are mixed with oxygen (taken from ambient air) and oxidized at high temperature to complete the process. The energy from this hot gas can then be recaptured for local heat, power or other energy form recovery.

Typical Steps for Siting the WasteStation™

A WasteStation will require a site that is properly zoned with the appropriate industrial infrastructure. Before taking delivery of the WasteStation, the following should be secured:

- ☐ Identify types of waste
- ☐ Site control through leasing or ownership
- ☐ Proper zoning or land conformance
- ☐ Environmental permits if required
- ☐ Waste agreement if required
- ☐ Ash disposal solution (landfill)
- ☐ Current cost of waste disposal
- ☐ Flat surface area for installation of WasteStation (dirt or concrete)
- ☐ Power availability for Operations
- ☐ Fuel availability for Operations





"On-site waste-to-energy conversion, saves money and just simply makes sense"

Energy Options

Organic Rankine Cycle Energy Option
An Organic Rankine Cycle (ORC) uses an organic working fluid that has a boiling point less than that of water to convert low-temperature heat into mechanical work. The mechanical work that is generated can then be converted into electricity. Dynamis works with several partners engaged to supply a complete ORC solution.

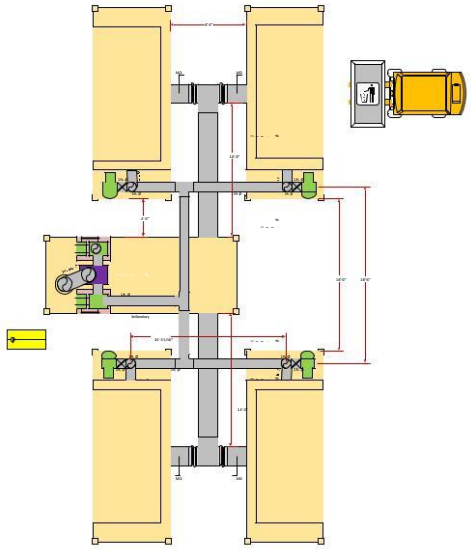
Steam Cycle Energy Option
The most frequently used system for power generation from waste heat involves using the heat to generate steam, which then drives a steam turbine or steam engine. The traditional steam Rankine cycle is the most efficient option for waste heat recovery from exhaust streams with temperatures above about 650-700°F [340-370°C]. Contact Dynamis Energy for more information.

The WasteStation™ expands to handle your growing waste needs.

Increasing waste generation is a growing problem, but with the WasteStation™, and its expansion capabilities, you simply add another waste chamber to the system, as your waste demand increases. The WasteStation™ can be expanded from 1 to a maximum 4 waste chambers offering the flexibility to grow with your waste needs. Unlike similar options for waste destruction, the WasteStation™ allows you to plan for future needs, without impacting today's budget.

Waste Heat Recuperation Option

When you expand the WasteStation™ by adding additional waste chambers for waste handling, you have the option to add recuperation of the waste heat. This option allows the reuse of the superheated flue gas to pre-dry and start the gasification process of waste in awaiting chambers. This option will reduce the fuel usage and also prepare the unit for energy recovery. Adding this option would include a Heat Exchanger, allowing the addition of power generation equipment. Typically this option is added when using more than 1 waste chamber.



Heat Exchange Option

One of the options that can be added to the WasteStation is a Heat Exchanger. This option allows the customer to take advantage of waste heat. A Heat Exchanger is simply a heat exchanger with hot stack exhaust on one side and water on the other. Options include:

- Air-to-air heat exchangers can be used to provide pre-warmed fresh air back to process ovens, dryers and/or plant make up air units.
- Air-to-fluid heat exchangers can be used to transfer stack heat to boiler feed water, plant makeup water, process water, glycol and other thermal fluid loops.
- Allows the addition of power generation equipment.

Environmental Awareness

One of the most compelling challenges of our time is finding a way to meet global waste management and energy needs while minimizing the impact on the environment. The WasteStation can help meet those challenges.

Trashing Energy

Most of the waste we throw away daily at our homes and businesses has significant value in the form of energy. Dynamis Energy technology can convert this waste and produce energy in an environmentally friendly way.

Not Incineration

The Dynamis Energy thermal conversion technology is not incineration. Incineration is the burning of fuels in an oxygen-rich environment, where the waste material combusts and produces heat and carbon dioxide, along with a variety of other pollutants. Our technology is the conversion of waste into their simplest molecular forms – carbon monoxide, hydrogen and methane, forming a syngas, which is then used to produce energy.

Environmental Advantages

- On average, it has been estimated that one ton of MSW combusted, rather than landfilled, reduces greenhouse gas emission by one ton of carbon dioxide.
- Most waste streams thermally converted by the WasteStation™ reduce the volume by 90%; thereby saving valuable landfill space for those items that cannot be thermally treated.
- Dynamis technology has been used in an operating plant since 1996, and has met the EPA requirements and continues to receive permits to operate.
- Using the WasteStation™ results in fewer trucks on the road hauling trash saving valuable fuel and related emissions.
- According to the Waste-to-Energy Research and Technology Council, Waste-to-Energy plants conserves fossil fuel when generating electricity. One ton of MSW combusted reduces oil use by one barrel (35 gallons) or 0.25 tons of high heating value coal.

Municipalities

Today, towns, cities, and counties are under tremendous pressure to reduce costs while maintaining services to their constituents. Waste management and energy costs eat up government budgets. The WasteStation™ allows governments to dispose of waste efficiently, manage energy and waste management costs, and convert waste to energy in an environmentally sound way.

Hospitality

Because the hospitality industry produces huge amounts of waste generated by transient customers waste management becomes a complex challenge. Rising waste disposal costs make installation of a WasteStation™ the perfect solution to efficient waste management, waste reduction and reducing operating costs while meeting environmental commitments, and potentially generate energy.

The WasteStation™ is the perfect waste management solution for a wide spectrum of industries and uses.

Healthcare

Hospitals and Healthcare are under increasing pressure to reduce operating costs and to reduce their carbon footprint. The WasteStation™ can help meet both of those objectives. The WasteStation™ provides a solution to assist overall integrated medical waste management needs and reduce operating costs. The WasteStation™ can also provide hot water, steam and electricity on site.

Industry

Most industrial companies incur high costs to dispose of large volumes of solid waste. Waste management is an area that can improve efficiency and turn waste streams into savings thru energy creation. The WasteStation™ turns waste into energy (steam or electricity) that can be utilized at the facility, while reducing the carbon footprint.

Military

Waste disposal and management are critical issues of focus for the U.S. Military. Addressing the issues of open burn pits, illegal dumping, and air emissions are all resolved by use of the WasteStation™. Security and safety issues at forward operating bases are resolved by reducing the need to transport waste out or fuel into the base, while providing a waste solution that is not harmful to military personnel.

DYNAMIS ENERGY™

Dynamis Energy Authorized Agent Contact Information:

BOSS ALLIANCE, LLC
928-298-3330