

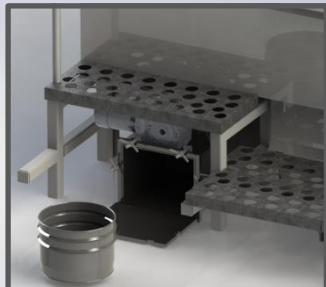
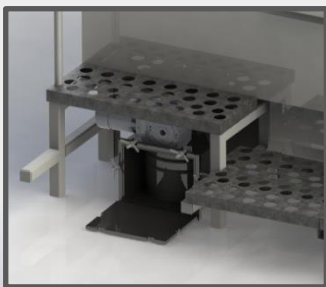
Micro Auto Gasification System

MAGS™ V8

MAGS is fueled by a variety of combustible material

Municipal/Domestic Solid Waste • Biomedical Waste • Pharmaceuticals • Illicit Drugs • Hazardous Waste
Sewage Sludge • Contaminated Packaging • Oily Sludge • Solvents • Plastic Waste • Confidential Waste

Automated biochar removal feature



Rugged

Self-Fueling

Lightweight & Compact

Simple & Easy Operation

Exceptionally Clean Emissions

No Pre-Treatment Required

Auto Gasification is Terragon's patented technology. **MAGS** thermally breaks down waste into biochar and syngas. The syngas is then used as fuel to make the process self-sustaining.

FEATURES

- 120 kW energy generation (hot water or space heating)
- Integrated gas cleaning and energy recovery
- Quench and scrubber eliminate dioxin/furan formation and the release of hazardous pollutants, including particulates and acid gases
- Automated biochar removal system for simplified maintenance
- Allows for 24-hour operation
- Simplified waste loading operation
- Flexible configuration or containerization
- Fully automated and available for remote monitoring
- Sequesters carbon from waste to reduce CO₂ emissions



TECHNICAL SPECIFICATIONS

Total Weight	4400 kg (9700 lbs)	
Overall Dimensions (multiple configurations)	2.8 m (L) x 1.8 m (W) x 2 m (H) 2 m (L) x 3 m (W) x 2 m (H)	(9 ft x 5.9 ft x 6.6 ft) (6.6 ft x 9.8 ft x 6.6 ft)
OPERATING CONDITIONS		
Nominal Solid Waste Throughput	The throughput depends on the bulk density of the waste being treated. A typical waste loading containing 50% food would result in the treatment of approximately 50 kg/hr (110 lbs/hr).	
Sludge Oil Throughput	15-20 L/hr (3.9 – 5.3 gal/hr)	
Operating Temperature in Gasifier	up to 650°C (1200°F)	
Operating Temperature in Combustion Chamber	1100°C (2012°F)	
Types of Waste Streams	Although MAGS can accept a variety of waste mixtures, it is ideally suited for the treatment of combustible wastes, including but not limited to: paper/cardboard, plastics, food, wood, rags, oils, solvents, sludge, etc.	
UTILITIES / CONSUMABLES		
Electrical Consumption	22 kW (460VAC/60Hz or 400VAC/50Hz)	
Type of Fuel	Light oil #1 or #2 (diesel), NATO F76 fuel, natural gas, other fuels also possible.	
Fuel Consumption	11.5 L/hr (3 gal/hr) for heat-up, which takes a maximum of 1.5 hours. Some additional fuel may be required, depending on waste composition and waste loading frequency.	
Caustic	1.5 L/hr (0.4 fl. gal/hr) NaOH, caustic soda 10% solution.	
EMISSIONS		
Gaseous	Total flow approximately 200 SCFM at less than 60°C (140°F). MAGS will comply with all applicable air emission regulations.	
Condensed Water	About 3 – 8.5 L/hr (0.8 – 2.2 gal/hr) depending on application and waste composition.	
Bio-char	< 5% waste mass reduction	
Audible	Less than 75 dBA within 5 feet	
Surface Temperatures	Less than 45 °C (113°F)	
ENERGY RECOVERY		
Energy Recovery Output	Between 80 kW – 130 kW depending on application and waste composition	

*Specifications are based on measured values for an average waste stream and may vary according to waste input.

MAGS hot and cold skids can be reconfigured or separated according to spatial limitations. Systems are available in a single 20 ft ISO container or Tricons for outdoor installation, easy mobility and rapid deployment

