

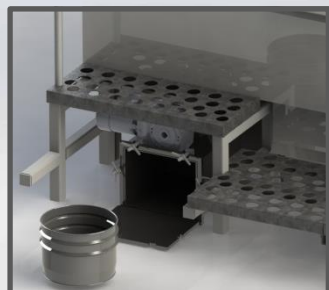
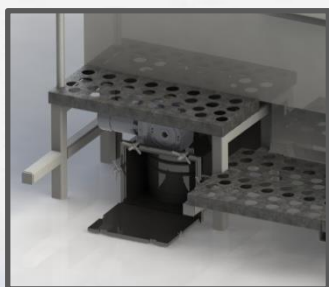
Micro Auto Gasification System

MAGS™ V8

MAGS is fueled by a variety of combustile 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	5,400 kg (11,905 lbs)
Footprint (default)	2.5m x 3.5m (8.2 ft x 11.4 ft)
Height	2.1 m (6.9 ft)

OPERATING CONDITIONS

Nominal Solid Waste Throughput	The throughput depends on the bulk density of the waste being treated. Waste loading results in the treatment of 17 kg/hr (37 lbs./hr) up to 50 kg/hr (110 lbs./hr) depending on the waste composition. See details in MAGS operating specifications sheet.
Sludge Oil Throughput	15-20 L/hr (4 – 5.25 USGal/hr)
Operating Temperature in Gasifier	600°C (1112°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 (400V/50Hz; 440V/60Hz; 460V/60Hz)
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	60 mL/kg solid waste (0.9 fl.oz/lb) NaOH, caustic soda 10% solution.

EMISSIONS

Gaseous	Total flow approximately 200 SCFM (5.6m ³ /min) at less than 65°C (149°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	95% solid waste volume reduction
Audible	Less than 75 dBA within 5 feet
Surface Temperatures	Less than 45 °C (113°F)

ENERGY RECOVERY

Energy Recovery Output	Between 100 kW – 130 kW depending on application and waste composition
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*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

