

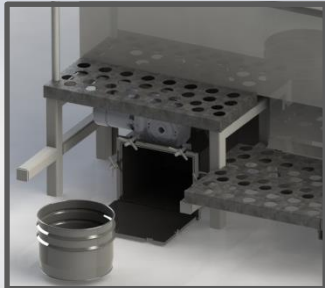
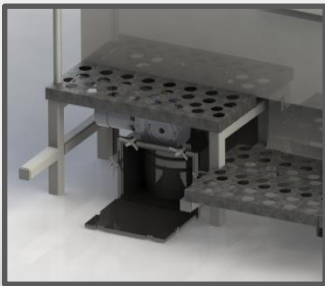
Micro Auto Gasification System

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

