

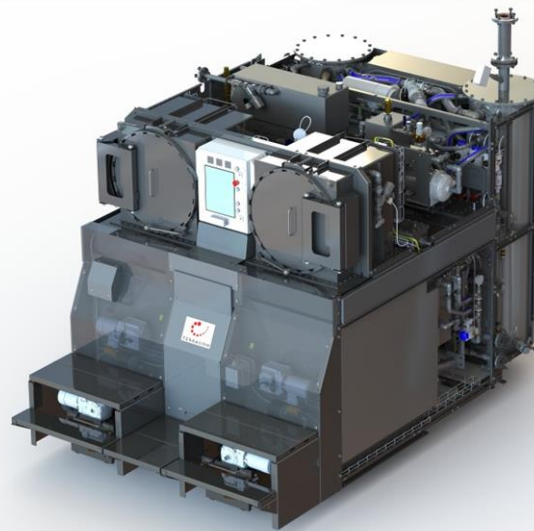
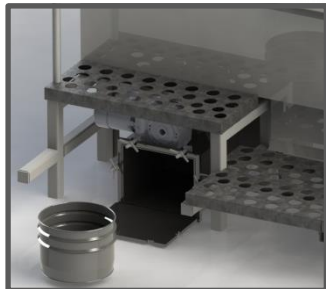
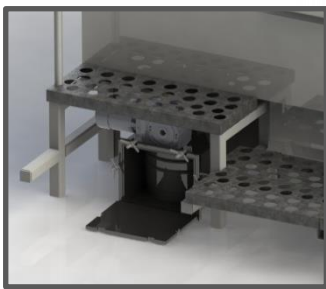
## Micro Auto Gasification System

### 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 CO<sub>2</sub> emissions





### TECHNICAL SPECIFICATIONS

Total Weight	<b>6707 kg</b> (14,786 lbs)
Footprint (default)	<b>2073mm x 3416mm</b> (82" x 134")
Height	<b>2073mm</b> (82")

### 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 <b>50 kg/hr</b> (110 lbs/hr).
Sludge Oil Throughput	<b>15-20 L/hr</b> (4 – 5.25 USGal/hr)
Operating Temperature in Gasifier	<b>600°C</b> (1112°F)
Operating Temperature in Combustion Chamber	<b>1100°C</b> (2012°F)
Types of Waste Streams	Although <b>MAGS</b> 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	<b>11.5 L/hr</b> (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	<b>60 mL/kg solid waste</b> (0.9 fl.oz/lb) NaOH, caustic soda 10% solution.

### EMISSIONS

Gaseous	Total flow approximately <b>200 SCFM</b> (5.6m <sup>3</sup> /min) at less than <b>65°C</b> (149°F). MAGS will comply with all applicable air emission regulations.
Condensed Water	About <b>3 – 8.5 L/hr</b> (0.8 – 2.2 gal/hr) depending on application and waste composition.
Bio-char	<b>95%</b> solid waste volume reduction
Audible	Less than <b>75 dBA</b> within 5 feet
Surface Temperatures	Less than <b>45 °C</b> (113°F)

### ENERGY RECOVERY

Energy Recovery Output	Between <b>100 kW – 130 kW</b> 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

