

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.

## Micro Auto Gasification System

**MAGS** is fueled by a variety of combustible material and complies with the requirements of MARPOL Annex VI

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

*Lightweight & Compact*

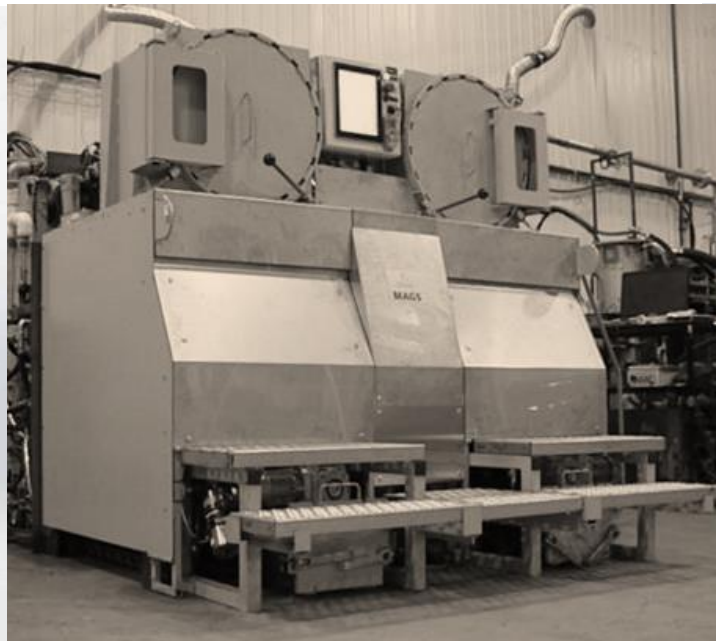
*Simple & Easy Operation*

*Exceptionally Clean Emissions*

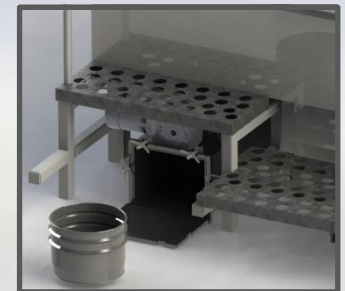
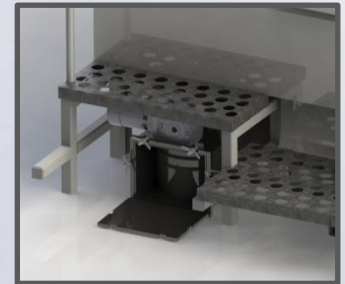
*No Pre-Treatment Required*

*Self-fueling*

*Service and Maintenance Packages Available*



*Automated biochar removal feature*



## Key Features of MAGS™

- Up to 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 (MAGS v8)

#### DIMENSIONS

|                          |  |
|--------------------------|--|
| Total Weight & Footprint | 7000 kg (15400 lbs)<br>2.5 m (8.2 ft) x 3.6 m (11.4 ft) x 2.0 m (6.9 ft) (W x D x H) |
|--------------------------|--|

#### OPERATING CONDITIONS

|                                |  |
|--------------------------------|--|
| Operating Temperatures         | 600 °C (1112 °F) Gasifier; 1100 °C (2012 °F) Combustion Chamber  |
| Nominal Solid Waste Throughput | Actual throughput is based on the bulk density of waste being treated; ranges from 17 kg/hr (37 lbs/hr) up to 50 kg/hr (110 lbs/hr). See details in MAGS operating specifications sheet. |
| Sludge Oil Throughput          | 15-20 L/hr (4 – 5.25 gal/hr)   |

#### ENERGY RECOVERY

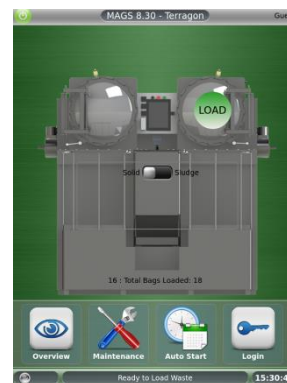
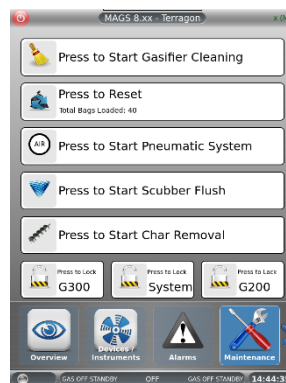
|                        |  |
|------------------------|--|
| Energy Recovery Output | Between 100 kW – 130 kW depending on application and waste composition |
|------------------------|--|

#### UTILITIES / CONSUMABLES

|                        |   |
|------------------------|---|
| Electrical Consumption | 3-phase, 22 kW (380V ±5% (361V - 400V)/50 Hz or 460V ±5% (437V - 483V)/60 Hz)   |
| 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); preheat requires maximum 1.5 hours. Some additional fuel may be required, depending on waste composition and loading frequency. |
| Caustic                | 60 mL/kg solid waste (0.9 fl.oz/lb) NaOH, caustic soda 10% solution.  |

#### EMISSIONS

|                      |   |
|----------------------|---|
| Gaseous              | Total flow approx. 200 SCFM (5.6 m <sup>3</sup> /min) at less than 65°C (149°F).      |
| Condensed Water      | About 3 – 8.5 L/hr (0.8 – 2.2 gal/hr) depending on application and waste composition. |
| Audible              | Less than 75 dBA within 5 feet  |
| Surface Temperatures | Less than 45 °C (113 °F)  |



**Intuitive, Programmable Interface**