

MAGS

MICRO AUTO GASIFICATION SYSTEM

ENABLING THE RECOVERY
OF ENERGY FROM WASTE

ABOUT THE TECHNOLOGY

- 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.
- 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**

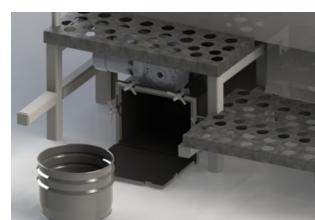
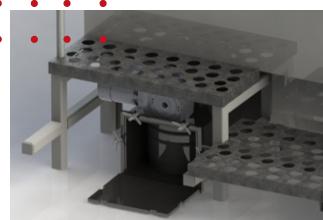


KEY FEATURES OF MAGS™

- 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 CO2 emissions.

ADDITIONAL BENEFITS

- Lightweight & Compact
- Simple & Easy Operation
- Exceptionally Clean Emissions
- No Pre-Treatment Required
- Self-fueling
- Automated biochar removal
- Intuitive, Programmable Interface
- Service and Maintenance Packages Available



MAGS

ON-BOARD TREATMENT OF SOLID WASTES AND SLUDGES

TECHNICAL SPECIFICATIONS

DIMENSIONS

Total Weight & Footprint	7500 kg (16534 lbs) 4.15 m (13.62 ft) x 5.65 m (18.5 ft) x 2.9 m (9.5 ft) (W x D x H)
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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
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UTILITIES / CONSUMABLES

Electrical Consumption	Nominal : 22 kW - Maximum : 35 kW (400V/50Hz; 460V/60Hz)
Type of Fuel	Light oil #1 or #2 (diesel), NATO F76 , 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 ³ /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)

