Magnetic Powered Waste Decomposer and Energy Creation System

MG22Eh

This system enables the effective processing of almost all organic based waste & resources, leading to cost savings and greater protection of the environment through the reduction of greenhouse gases (GHG) emissions

MG22Eh-5MR

Standard Chamber 5.0 ㎥

MGRT-200

Exhaust self-combustion reactor

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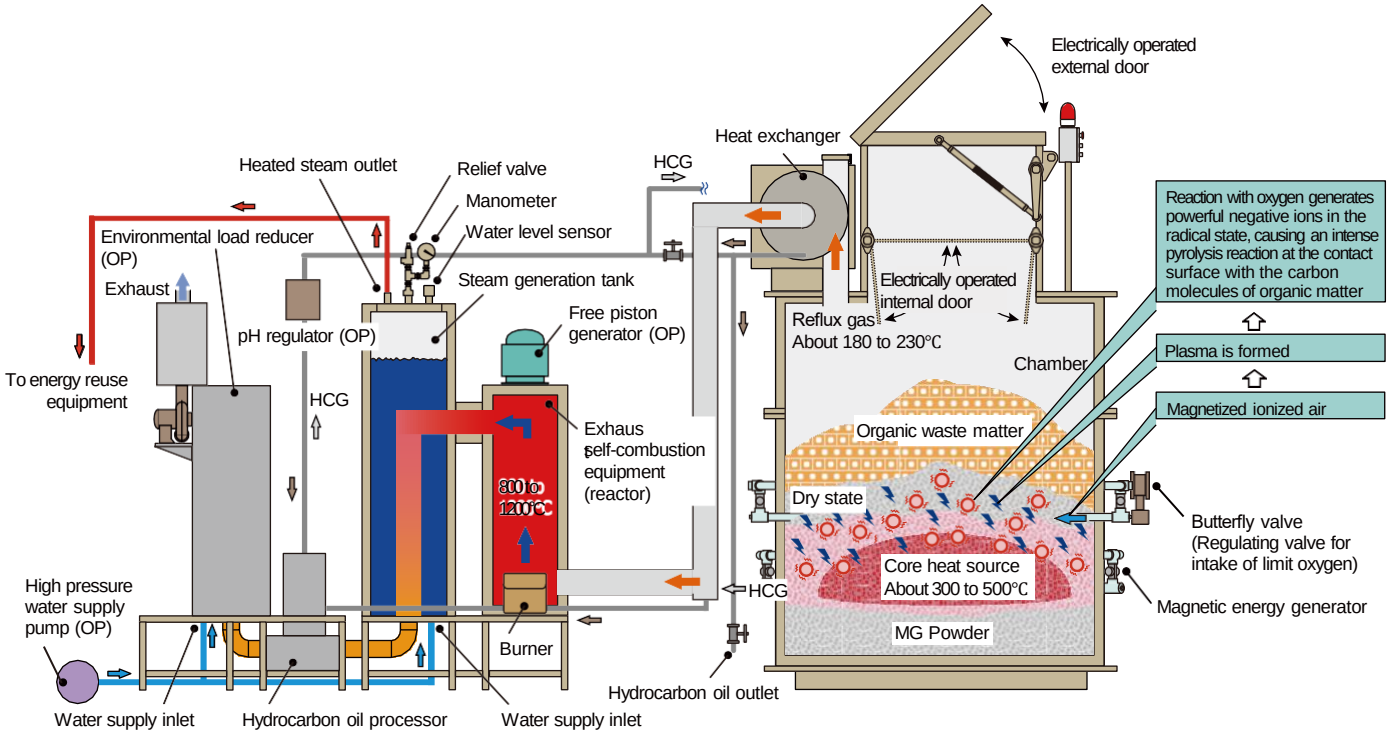
Magnetic Powered Waste Decomposer and Energy Creation System

– Power generation flow



Product specifications

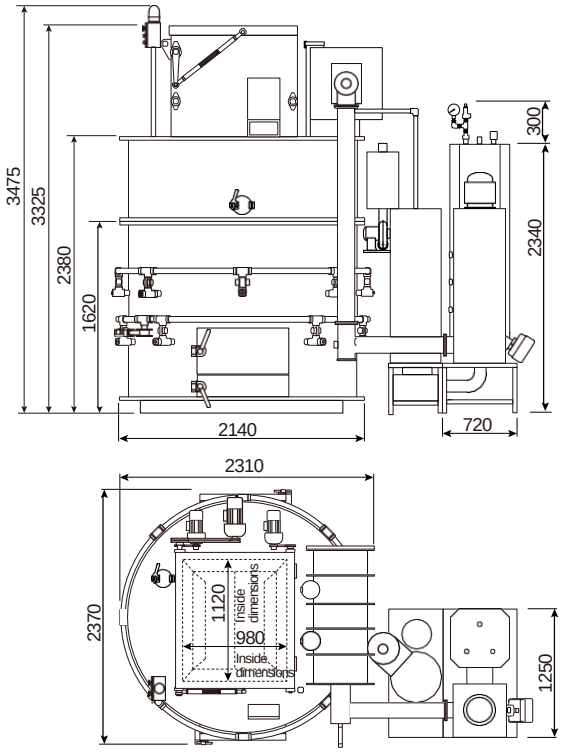
Operating specifications

1. Automatic operation by electric control
2. Maximum input: 4.0 m³ Specifications / Ratings
3. Gross weight: About 3200 kg
4. Dimensions: 2370 mm (W) by 2310 mm (L) by 3475 mm (H)
5. Power requirements: Single phase 200 V, 0.4 to 1.0 kw/h
6. Operation control: Automatic control after the loading of organic matter
7. Magnet holders: 16
8. Indoor installation specification
   Body external temperature of less than 50℃
7. Feed port: Electrically operated external and internal doors
8. Automatic adjustment of operating temperatures
   (Set operating range: normal temperature to 300℃)
9. Intake of ionized air
   (Temperature of chamber is controlled automatically)
10. Exhaust self-combustion reactor MGRT-200
    Automatic water supply (Outflow steam = Steam pressure 0.2 to 0.4 MPa)
    Safety valve operating pressure: 0.3 to 0.4 MPa
    Dimensions: 1250 mm (W) by 720 mm (L) by 2640 mm (H)
    Burner oil tank (kerosene): 198 L
    Burner nozzle: 0.75 G (fixed type)
11. Accessories:

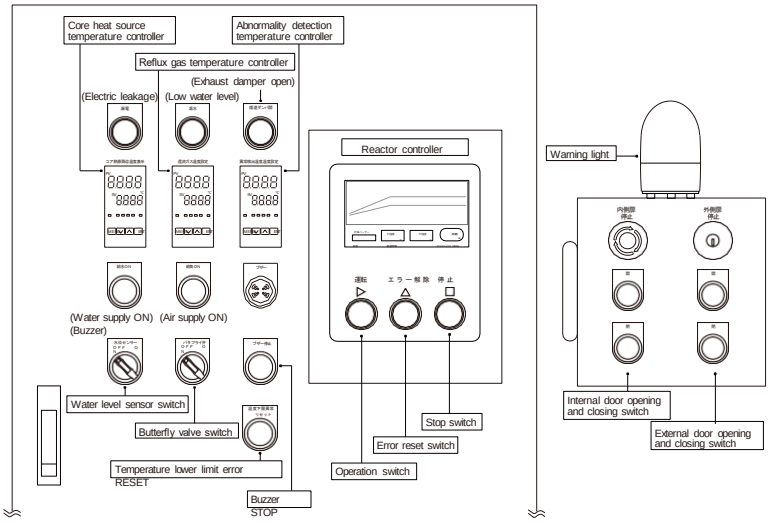
Steps Options (OP)

High pressure water supply pump / Environmental load reducer / pH regulator / Dryer / Lifter / Hot water tank (1500 L) / Free piston generator (200 V, 0.8 Kw)

MG22Eh-5MR



Control panel



Features

Using organic matter as fuel, this system produces steam that can be used for power generation, water heating, space heating, etc.

1. This system uses only magnetism and heat inside the chamber to decompose and reduce the volume of organic matter. It also creates steam from the generated combustion gas.
2. It provides 24/7 operation! All you need to do is input materials at certain intervals. No need for fossil fuels.
3. This system has met environmental standards by minimizing the emissions of carbon dioxide and dioxins.
4. The organic matter loaded is decomposed and reduced in volume into harmless ash (Magnesium/silica-based powder).
5. It has excellent durability performance due to low-temperature decomposition and a small temperature change during operation.
6. The temperature for decomposition is automatically controlled by the system. Also, to open and close the doors for inputting materials only requires pressing the buttons.

Organic matter/waste

The energy source is general organic matter/waste as follows.

- Business: cardboard, paper, dried livestock manure, dried food waste, construction waste, etc.
- Wood: wood from forest-thinning, disaster damaged wood, dried pruned wood, deadwood, sawdust, etc.
- Agricultural: rice husk, straw, agricultural polyethylene, etc.
- Chemical: PET bottles, vinyl, plastics, artificial fibers, paper diapers, etc. *For vinyl chloride, please contact us

*If the water content exceeds 30%, the material should be dried or mixed with other dried materials.
(Rice husk and wood materials are effective because they contain a high proportion of carbon (C).)

Operation overview

1. Check that the water supply valve for the steam tank is open.
   (The system is designed to prevent heating without water in the tank.)
2. Check the temperature of the main unit.
   Turn on the main power supply. (Set temperatures are preset at the time of installation.)
3. Put organic matter into the input chamber.
   The material is then loaded onto the chamber and decomposed there. The maximum input volume is about 70 to 80% of the capacity (3.5 to 4.0 ㎥ / day).
4. The number of times you input organic matter should be 2 to 4 times a day at intervals of about 6 to 12 hours.
   *State of decomposition and volume reduction of organic matter varies depending on its type.
   ○ Routine maintenance: Take out the residue (Magnesium/Silica based powder) every 3 or 4 days and clean the flue once every week or so. (This should be done before the first input on that day.)

Decomposition

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①As the temperature increases in the processing chamber with outside air shut off, the inside air flows out, resulting in a negative pressure.
②In this negative pressure state, air flows in from outside when the inside temperature is below a certain level.
③This air passes through the magnetic field in the strong magnetic energy generator to create negative ions
④The negative ions form a plasmatic state when the temperature in the decomposition chamber is around 400℃. The negative ions are radicalized as they become excited by reacting with the oxygen from the rarefied air flowing in.

*Radical: Atoms and molecules are usually in a stable state surrounded by electrons in pairs. "Radical" refers to a state where the electrons are unpaired. In this state, atoms and molecules react actively to deprive others of electrons so that they can be stable again.

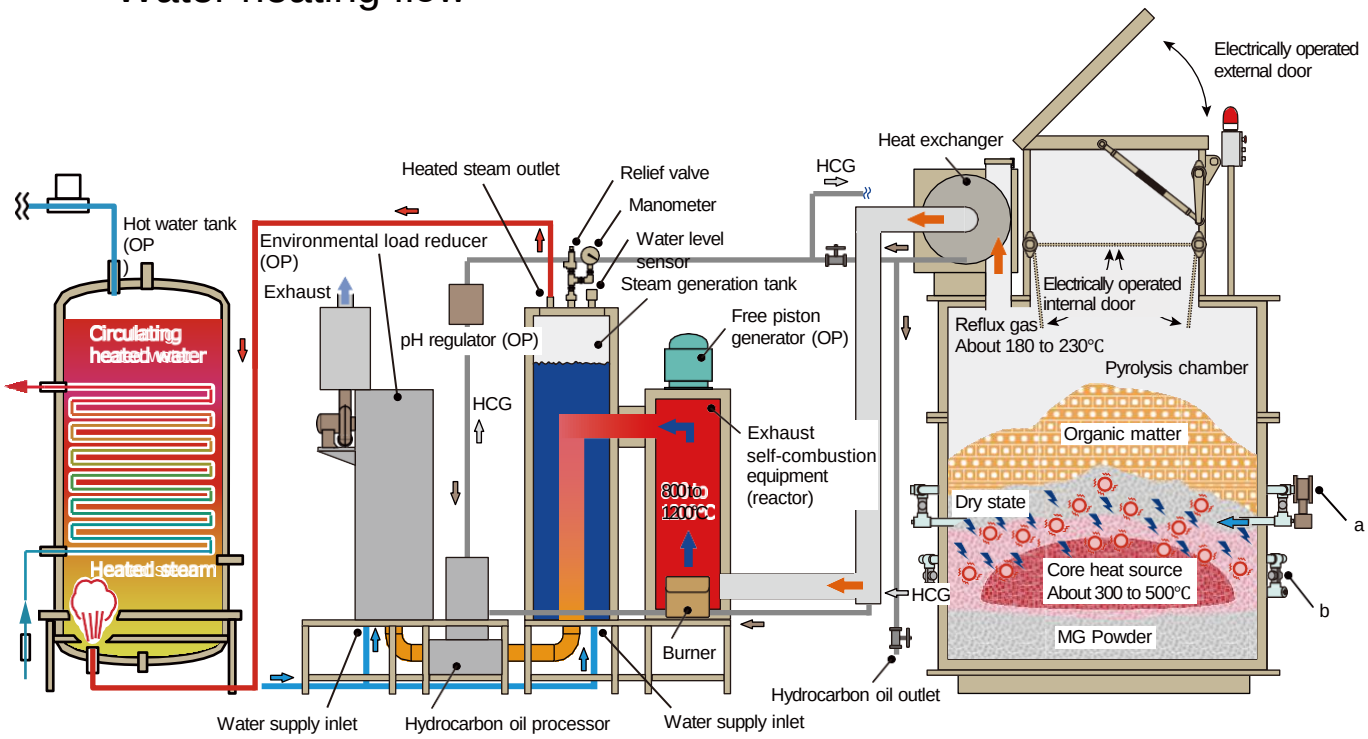
*Plasma: A state in which molecules comprising gas are ionized. In other words, a state in which positively charged ions and negatively charged electrons fly around freely.

⑤When these negative ions react with the carbon (C) molecules inside the organic matter loaded into the chamber, it causes an intense decomposition reaction at the contact surface, enabling oxidative decomposition of organic matter without the need for any outside energy input.
⑥At the same time, the action of the negative ions makes them react with harmful substances too, resulting in the production of harmless and stable residue Magnesium/silica-based powder.
⑦Any remaining exhaust gas is treated in the reactor to within environmental standards before final emission.

MG22Eh related patents: 3 patents obtained, 3 patents pending, and several patents filed under PCT
(as of the end of September 2022)

Magnetic Power Based Decomposer and Energy Creation System

– Water heating flow



Installation location

1. A space with a concrete cast floor at least 10 cm thick, a ceiling 5 m high, an entrance 3 m wide, a depth of 4 m, and a security lock. (Minimum installation dimensions for MG22Eh-5MR)
2. Related equipment and work: Electrical equipment (single phase 200V), construction of water supply and drainage sanitation equipment, construction of air supply and exhaust equipment, etc.

Installation support

Our expert engineers support the entire installation process, including design and construction management, for this system and related equipment.

1. We support installation according to your installation space and existing equipment such as boilers etc.
2. We can also provide comprehensive support for the construction of equipment related to this system, including design and construction management.
3. At the time of installation, we will send you an engineer for a certain period to instruct your operation staff on efficient ways of operation.
4. We will also cooperate with relevant local contractors who construct and operate your existing equipment.

Maintenance support

We offer maintenance services through our unique service network.

1. A maintenance contract applies to this system under which we will provide necessary maintenance and operational support for a charge.
2. We provide consultation on efficient operation and other questions.
3. Replacement of consumable parts are available through the local agent.
4. We also provide consultation about environmental and management issues related to this system with an additional cost.

●If you have any questions about this product, please contact us as follows.

RECYCLING OCEANIA

www.recyclingoceania.com

021-855358 / 09 579 2212

rodney@japanesesolutions.co.nz / John@jpasearch.com