SELENERGY

IMAGE INTEGRATOR

CATALOG

SELENERGY INCINERATOR

SCAN TO WEBSITE

World's only super compact size eco-friendly
2,000˚C ultra-high temperature incineration technology

Produced by :
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ABOUT COMPANY

SELENERGY is a Climate Tech company providing next-generation eco-friendly solutions that address both waste management and energy poverty through only 6sqm compact size ultra-high temperature incineration technology **exceeding 2,000°C.**

Our proprietary compact incinerator processes over 10 tons of waste per day, operating 24/7, and can **generate 50 kW of electricity per hour** without significant maintenance costs. This enables energy self-sufficiency while ensuring environmental protection.

We focus on **building sustainable resource models** in regions facing both energy inequality and waste crises, especially in Asia, Africa, and the Middle East. Instead of simply selling equipment, we promote on-site training, technology transfer, and job creation, aligning with climate adaptation, mitigation, and Climate Justice values.

Our system supports diverse business models such as electricity sales, waste treatment fees, heat supply, and renewable energy certifications (REC), **maximizing both social impact and profitability.**

WHY SELENERGY ?

SELENERGY'S INNOVATIVE TECHNOLOGY

- Perfect combustion with ultra-high temperature of 2,000°C.
- Minimizes environmental impact by reducing harmful substances to zero.
- Compact, incineration-capable design reduces initial setup costs.
- Economic operation with high energy recovery rate.
- Meets emission standards without additional environmental facilities.
- On-site waste processing possible with mobile systems.

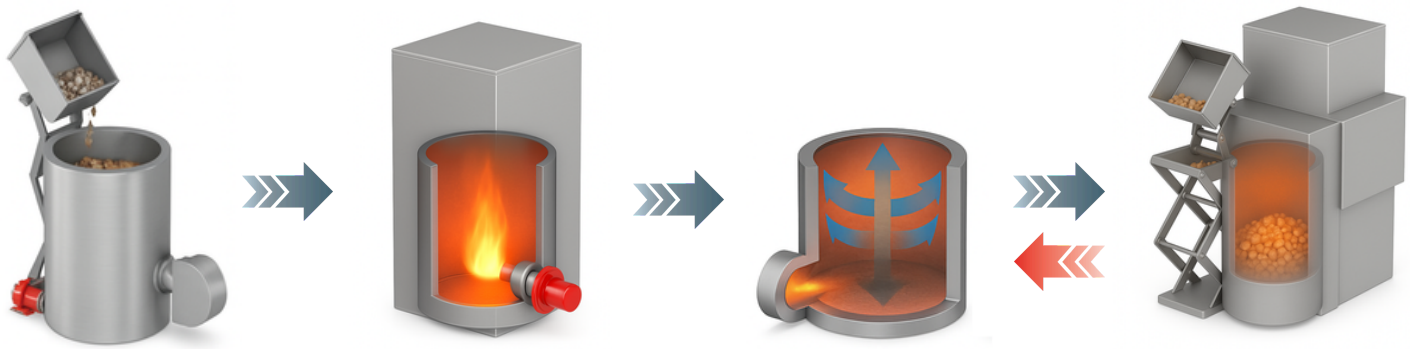
LIMITATIONS OF CONVENTIONAL INCINERATION METHODS

- Incomplete combustion with low temperatures of 800–900°C.
- Generates harmful substances such as dioxins and fine dust.
- Requires large facilities and high initial investment costs.
- Low energy efficiency with high operating costs.
- Requires additional large-scale pollutant treatment facilities.

COMBUSTION PRINCIPLE

The combustion principle is based on the following process:

- **Feeding :** Waste materials (both combustible and non-combustible) are fed directly into the inlet without the need for any special ignition agents.
- **Ignition :** Ignition is achieved using a kerosene burner.
- **Blower Operation and Ultra-High Heating :** When the blower is activated, high-pressure air is spirally injected through five air nozzles. This generates an intense vortex (cyclone) inside the incinerator, which, together with the function of the specially engineered heat-resistant cement lining, raises the internal temperature to ultra-high levels. For instance, wood waste reaches approximately 1,800 ˚C in less than 20 seconds.
- **Continuous Processing :** While maintaining this ultra-high-temperature state, waste is continuously fed by the lift system for incineration and melting treatment.



Feeding | Ignition | Blower Operation & Ultra-High Heating | Continuous Processing

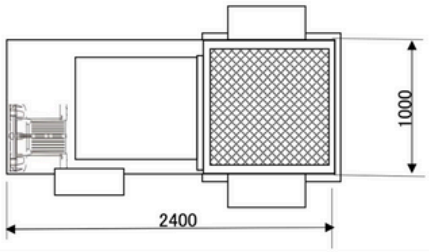
PRODUCT

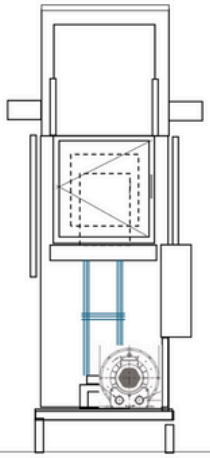
Product Components

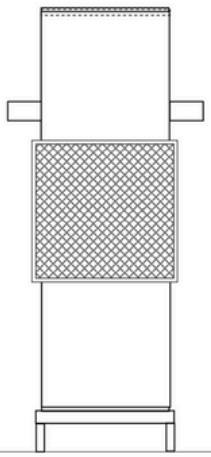
Our product is composed of the following main components :

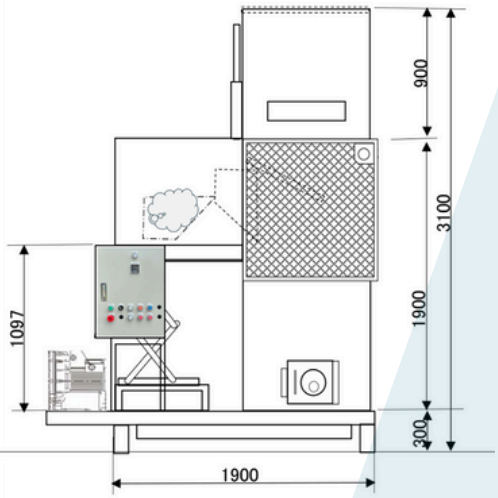
- **Main Unit :** Base support platform, incinerator body
- **Exterior casing :** For incinerator, exhaust outlet, and feed inlet
- **Combustion System :** Kerosene burner, kerosene installation platform, burner ignition switch panel
- **Air Supply System :** Blower, blower switch panel, connecting pipe between the blower and the lower part of the incinerator body, and five air nozzles inside the incinerator
- **Feeding and Conveying System :** Lift, lift switch panel, and feed inlet
- **Control and Monitoring System :** Temperature measuring device, various sensors, and control panel

- **Photo of product :** Front, Side, Top view
- **Product design drawing :** Front, Side, Top Blueprint



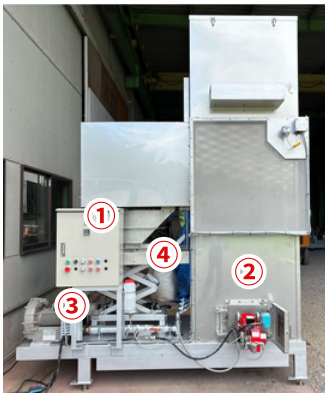


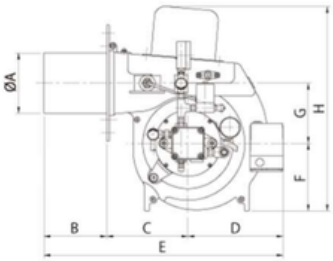


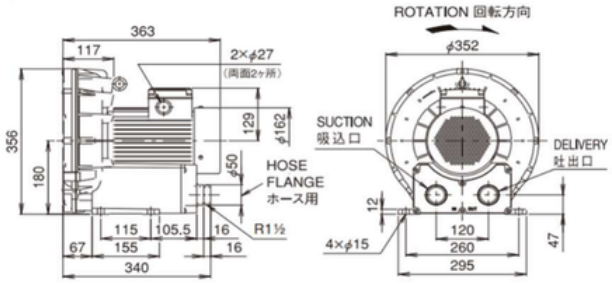


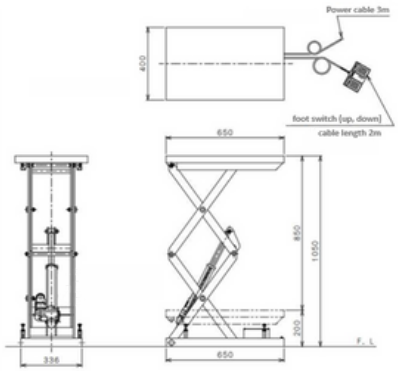
PRODUCT

Specification









① Control Panel Specifications

- **Temperature Gauge :** Up to 1300℃
- **Operation Switch :** Operation Switch (Green)
- **Emergency Stop :** Stop / Reset after Rotation (Red)
- **Selector Switch :** Automatic / Manual (Black)
- **Lifter Switch :** Up / Down (Gray)
- **Burner :** Ignition / Stop (Orange)
- **Blower :** Operation / Stop (Blue)

② Ignition Burner Specifications

- **Output :** 0.04 kW
- **Power Supply :** AC100V, 1Φ, 50/60Hz
- **Fuel Consumption :** 1 liter / first 15mins only
- **Fuel Used :** Kerosene
- **Oil Supply Method :** Electromagnetic Pump Type
- **Rated Output :** 58 W

③ Blower Specifications

- **Output :** 1.3 / 1.9 kW
- **Power Supply :** AC200V
- **Power Consumption :** 6.0 / 8.0 A
- **Static Pressure :** 6.86 kPa
- **Air Volume :** 2.4 / 3.0 ㎥

④ Waste Input Lifter Specifications

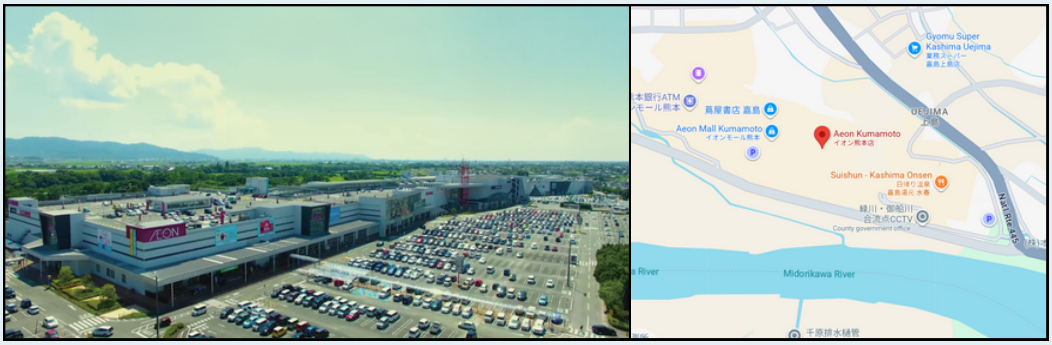
- **Lift Type :** Electric Pole (Scissor Lift Type)
- **Operation Method :** Foot Switch
- **Motor :** DC90V, 70W
- **Power Supply :** AC200V, 50/60Hz
- **Net Weight :** 42 kg

PROJECT

AEON Mall Kumamoto

861-3106 Uejima, Kashima, Kmimashiki District, Kumamoto, Japan

As the largest distribution group in Asia, it operates an extensive network of retail stores across Japan. Outside of Japan, it has opened shopping malls in Southeast Asia and Hong Kong.



Scan to website

Hoshino Resort Taketomi Island

907-1101 Taketomi, Yaeyama District, Okinawa, Japan

A leading luxury resort and hotel chain that represents Japan. Hoshino Resorts focuses its business on traditional ryokans, luxury resort properties, and upscale urban tourism hotels.

Scan to website

PROJECT

Truck-Mounted 2000˚C Ultra-High-Temperature Incinerator: Innovative Mobile Incineration System

By utilizing the mobility advantages of a small incinerator. SELENERGY's truck-mounted system offers an innovative solution that allows direct on-site treatment of waste without transporting it to a fixed facility — unlike conventional large stationary incinerators.

- **Maximized Accessibility:**
Processes waste immediately at the site, whether it's factories, construction sites, or remote locations.

- **Reduced Logistics Costs:**
Significantly cuts logistics expenses by eliminating the need for waste transport through primary and secondary processes.

- **Increased Processing Efficiency:**
Tailor-made incinerators for on-site needs maximize operational efficiency.

- **High Business Viability:**
Can operate anywhere nationwide, enabling rapid business expansion with low fixed costs.

Q&A

Q. What is the operating cost of the equipment?

A. The kerosene consumption is approximately 1 liter per a turning on the machine for 15 minutes to heat insdie, and the electricity cost can be calculated as follows:

Operating Cost (USD/day) = Blower Power Consumption (kWh/h) × Operating Hours (h/day) × Electricity Rate (USD/kWh)

Q. What is the operating speed and load capacity of the lift?

A. The lift has a maximum load capacity of 100 kg, but for safety reasons, a loading weight per operation is 10 kg.

Each lifting cycle takes approximately 40 seconds. Assuming a daily incineration amount of 10,000 kg, and 10 kg per cycle, it requires around 1,000 lifting cycles, which equals about 40,000 seconds (approximately 12 hours) of lift operation only—excluding waste combustion time and other operational processes.

Q. What is the size of the waste inlet and the incinerator?

A. The specific inlet dimensions vary depending on the model; however, in general, the system is designed to accept a standard drum barrel (approximately 60 cm in diameter and 90 cm in height) directly. The overall dimensions (width, depth, height) and total weight of the equipment differ by model.

Q. How is the ash or residue handled after incineration?

A. For wooden material (15 cm × 15 cm × 30 cm), complete combustion occurs within approximately 20 minutes, leaving no ash. The ash discharge door measures 20 cm × 20 cm, and when closed, there is a 4 cm round observation hole for internal inspection. A dedicated scraping tool is provided for ash removal. In the case of organic combustible waste, the remaining ash typically amounts to around 1/1000 of the original waste weight.

Q. Are there any certifications required for import or operation of the equipment?

A. Certification requirements vary depending on the country of import and operation. However, since this incinerator operates without fossil fuels and achieves combustion temperatures above 1,800 ˚C, it produces no dioxins or CO_2 emissions. Therefore, in most countries—including Japan and South Korea—no special environmental or operational certification is required.

Q. How can I make further inquiries?

A. Please contact our overseas sales department at oversea@selenergy.kr

We will respond promptly to assist with your request.

SELENERGY

IMAGE INTEGRATOR

THANK YOU

"With creativity at our core, we remain firmly rooted in the spirit of craftsmanship — a commitment that has never changed."

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