

Protect the earth for the children of the future!!



No  
FUEL

# EARTH CUBE Earth Qbic



Low Temperature Pyrolysis Equipment



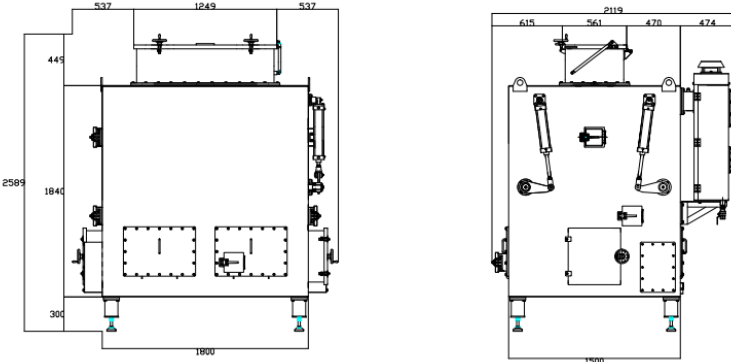
**Sustainable Technology Co.,Ltd.**

# FUNCTION & FEATURES

NO FUEL, LESS DIOXIN, LESS OXYGEN, NO FIRE.  
Low temperature pyrolysis system using reduction  
leaving only re-usable by-products.



EARTH CUBE is an **organic substance processor** with a **magnetic flow low-temperature pyrolysis system** that is completely different from the conventional incinerator waste processor. It was developed as a machine for producing ceramic ash produced in the final stage of treatment. As EARTH CUBE is not an incinerator, no fossil fuel etc. will be used to process organic matter. In addition, the emission of dioxins and the like are suppressed, which eco-friendly and significantly contributes to the protection of the global environment. EARTH CUBE is able to process and treat most organic substances.



A state of negative ionization of the air is generated in the furnace. The low temperature pyrolysis processor generates negative ions using a unique combination of minerals and magnetic field strength. Both air and organic matter contain moisture, and this moisture is weakly electrolyzed by the magnetic force, causing the moisture to dissociate into hydrogen ions and hydroxide ions. At this stage, the voltage is very weak ( $< 1$  V), and oxygen is not generated. The positive ions are attracted to the negative ions of the electrode, stabilizing the negative electrons and is released into the air as hydrogen gas. Simultaneously, negative ions abstract hydrogen from water molecules to generate hydroxyl ions. In the air magnetic field, hydroxyl ions continue to increase and **repeat intermittent discharges**. When hydroxyl ions with magnetic energy collide with organic carbon molecules, heat is generated and thermal decomposition occurs in the absence of oxygen. This principle promotes carbonization quickly, and furthermore, the residue is self-destructed by the increase of the magnetic field in the air, resulting in a magnetized, mineralized ceramic state.

## BENEFITS OF EARTH CUBE :

- Zero fossil fuel usage
- Electricity and water charges are minimal
- No fire / flame and therefore safe
- Eco-friendly
- No vibration or noise
- Can install underground or on a roof ( requires space similar to approx. 1.5 cars parks )
- Less smoke output (even when processing tires )
- Ash by-product is approx. 1/300 in weight and can be used with fertilizers or re-enforcement
- No need for final ash transport
- Oxygen production is limited ( approx. 10% ) and only traces of dioxin
- Daily management time required is 2 hours
- No motor or electricity used, will last a lifetime
- No rust as magnetic force is used, and the magnetism has no effect on people
- Received the Asia Golden Star Product Award 2019 (Environmental Sector)

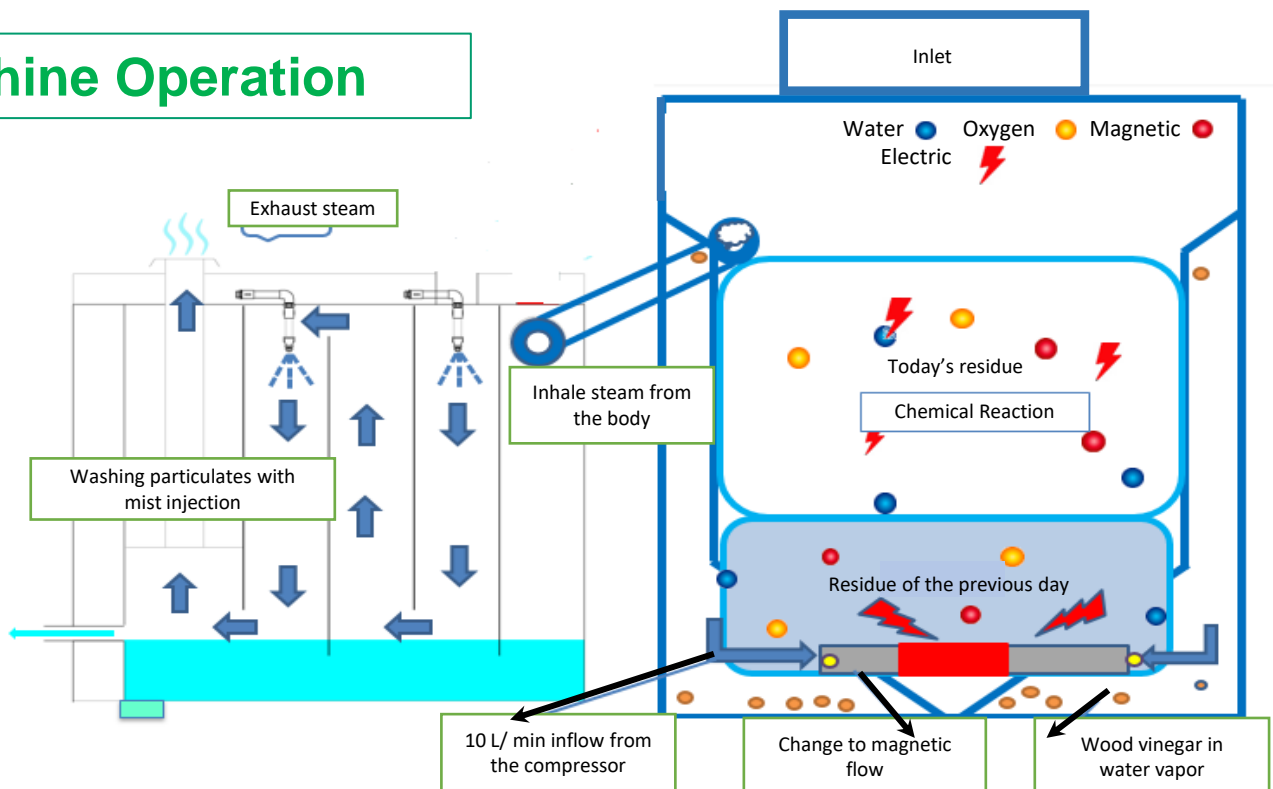


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- The inlet is a double door with a structure that does not touch the outside air
- An automatic 180 kg bar is used to hold the organic substance in the machine to prevent cavities that would be created as the organic substance is dried.
- The ash outlet has a structure that does not come into contact with the outside air.
- Mist water washes the exhaust vapor and oil content is discharged in grease trap by precipitation.

## Machine Operation



### EARTH CUBE can process :

- Almost all organic matter (without separation)
- Petroleum products (plastic, polystyrene foam, plastic bags, vinyl, trays, etc.)
- Food residue
- Paper products (magazines, catalogs, telephone books, etc.) and trees (garden trees, branches, pieces of wood, sawdust, demolished wood, etc.)
- Fishery waste (fish waste, fishnet, etc.)
- Livestock waste (horse manure, cow dung, barnyard etc.)
- Cloth products (clothing, stuffed animals, etc.)
- Medical waste (bed sheets, paper diapers, etc.) etc.

Note) If the moisture content is high, the matter will need to be processed with materials with low moisture content ( such as paper or cardboard ) to lower the moisture content to 70% or less.

EARTH CUBE cannot process metals, glass, stone, gypsum board, asbestos, concrete and batteries nor handle volatile or explosive substances as per industry conventions.

### EARTH CUBE by-products :

- **Effluent (vinegar) :** weakly acidic wood vinegar-like waste liquid is released from the drain valve. Tar-like residue is removed and put into the furnace again for processing. The vinegar solution can be diluted 500 - 1000 times, like commercial vinegar, and used as a pest control agent.
- **Ceramic ash :** most of the input eventually becomes ceramic ash. Usually produced in one cycle, ceramic ash continues to act as magnetic ion ceramic. It takes about 14 – 17 days until it becomes a magnetic ion ceramic of high purity. Ceramic ash generates high concentrations of negative ions; it can be used as a fertilizer in the field and can mixed into wallpaper paste.



# We solve the world waste issue.

Type	Size (mm)	Capability (m <sup>3</sup> /day)	Weight (kg)
EQ-150	D 2,610 x W 1,950 x H 2,490	1.5	2,600
EQ-220	D 2,910 x W 2,680 x H 2,780	2.2	3,700
EQ-20F/40F	ASK	ASK	ASK

Specific gravity calculation : Waste plastic = 0.35, wood waste = 0.55, paper waste = 0.17, fiber debris = 0.12, rubber waste = 0.52, animal and plant residue = 0.80, infectious industrial waste = 0.30, sludge = 1.10, animal carcass = 1.00

Note: Specifications are subject to change without notice.

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