



Waste Treatment Business

Turning waste into valuables for the earth.

Offering EPC and O&M solutions of Waste to Energy and recycling plant, we contribute to forming a sustainable society, with reducing negative environmental impacts.



01

Waste
Treatment



02

PCB
Detoxification

01. Waste Treatment



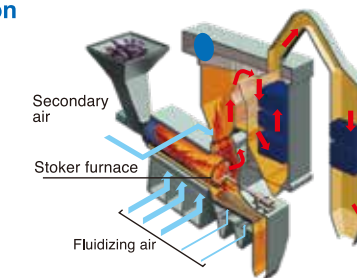
Developing environment-friendly waste treatment technology. Our incinerators are advanced in functionality, with being able to reduce environmental impacts.

Incinerator

Responding to a wide range of waste

Grate Type Incineration

The rotary combustor facilitates efficient mixing and agitation of waste. This allows for treating with a wide variety of waste. Heat is efficiently recovered through boiler water pipes constituting the furnace walls. This helps realize highly efficient waste-to-energy system. It is a robust system with less moving parts.

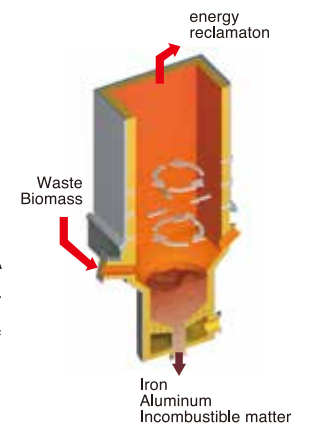


Incinerator

High efficiency power generation is possible

Fluidized-Bed Gasification & Combustion

Gasifying waste using fluidized sand. A vertical, compact furnace that burns waste efficiently. High-efficiency power generation with high-temperature, high-pressure boilers, and recovery of metals with high resource values from fluidized bed furnaces, such as high-quality iron and aluminum, is possible.



Melting

Creating Vitrified Material (VM) through high temperature melting

Fluidized-Bed Gasification and Melting Furnace

Melting is achieved using the energy possessed by waste, without using fossil fuels. By gasifying waste and reacting it with air, the ash is converted to Vitrified Material (VM) using high temperature melting. This also achieves a high resource recovery rate through the collection of highly recyclable iron, aluminum, VM, etc.

Pretreatment equipment

High safety and processing performance

Drum can crushing systems

Crush waste sealed in drums. After kneading with a mixer, it is pressure-fed to an incinerator using a piston pump. The waste can be processed safely without touching it, and automation of crushing, kneading, and pumping allows for efficient processing speed.

Recycling facility

Sorting waste for recycling

Recycling centers

Systems for crushing, sorting, and recycling bulky waste, non-combustible waste, PET bottles, bottles, cans, etc. In particular, our automatic bottle color sorter can automatically sort glass bottles into colorless, brown, and other colors, helping to reduce labor costs.

After-sales services

Leveraging our experience cultivated through the operation and maintenance of numerous facilities, we provide services that minimize life cycle costs and ensure the stable operation, steady performance, and long useful lives of facilities. From inspections to repairs, improvements, and renovations, we provide highly specialized services through our nationwide network in order to meet customer needs.

02. Detoxification of PCB and Dioxin



Polychlorinated biphenyl: a colorless transparent chemical, chemical substance in an oily liquid form. They were used in a variety of applications, such as insulating oil for electrical equipment, but their production is now prohibited due to their adverse effects on the human body. For a long time, there were no effective methods for processing PCBs, but we developed a technology for detoxifying them. We will also continue to work toward eliminating negative legacies for future generations through the design, construction, and maintenance of facilities.



Plant for Toyota PCB Waste Treatment Facility,
Japan Environmental Storage & Safety Corporation (JESCO)

Decomposing liquid PCBs

Liquid PCB Decomposition Technology SP Process

A chemical reaction between sodium and the PCB removes chlorine from the PCB. Liquid PCBs extracted from transformers and capacitors are decomposed and detoxified.

Removing PCBs from electrical equipment surfaces

PCB Wastes Decontamination Technology SED process

A technology for removing PCBs adhering to the surfaces of electrical equipment after removing the PCBs. PCBs are removed using solvent washes, vacuum heating and drying process.

Responding to a wide range of pollutants

Responding to a wide range of pollutants Plasma melting technology

A wide variety of contaminants with different shapes and properties, such as fluorescent lamp ballasts, other waste with complex shapes, sludge containing PCBs, etc., are decomposed and rendered harmless in high temperature plasma and molten baths.