MSW (Municipal Solid Waste) Treatment Technology

Fluidized Bed Gasification and Melting Furnace
Our waste treatment facility “Fluidized Bed Gasification and Melting Furnace” is constantly evolving. This system can reduce the burden on the final disposal site and inhibit the generation of greenhouse gases since, by harnessing the energy in the waste, ash can be turned into slag without using fossil fuels. The slag may be put to effective use as road aggregate or secondary concrete products. In addition, metals such as iron and aluminium can be retrieved in an unoxidized state from the waste and utilized as recycled resources. Our company can provide highly reliable facilities, based on the extensive experience we have amassed from constructing 17 commercial plants and 18 years of operation in Japan.

Fluidized Bed Furnace
We have created a next-generation fluidized bed gasification furnace that combines fluidized bed technologies with gasification technologies developed in the gasification and melting furnace field. Its distinctive features are enhanced boiler efficiency attained by converting waste into highly-combustible gas at the sand layer and burning it at high temperatures with a low air ratio, and a high-temperature high-pressure boiler (6MPa \( \times 450^\circ \text{C} \)) achieved by leveraging the desalination efficiency of the fluidized bed. It offers technologies that are suitable for simple, safe, highly energy-efficient regional energy centers.

Grate Type Incineration
“Grate Type Incineration” is the oldest and most widespread domestically used waste treatment technique. Age-old techniques are constantly evolving to promote the realization of a resource recycling orientated and low carbon society. The distinctive features of our grate stoker system are its highly-efficient heat recovery and maintenance-free grates. It also has an excellent reputation as a robust furnace that can handle a wide range of waste matter, including plastics, slop oil and sludge.

Inspection, Repair, Improvement
We live up with customer’s expectation providing a wide variety of after-sales services such as inspection, repair and improvement of municipal waste treatment plants and recycling facilities. We also have an extensive track record regarding improvement work on a fundamental part of the facilities for service life extension. Based on the expertise and accumulated know-how, the optimum proposal for each facility can be brought to our customers. In comprehensive service projects that include inspections and repairs, and in DBO projects, we provide meticulously customized after-sales services utilizing the latest technologies, thereby contributing to the reliable, safe and stable operation of the facilities.

Waste Treatment (Maintenance)
We provide a wide variety of after-sales services to respond to various customers’ needs.