

Technical Information Sheet

1. Name of technology	Fluidized bed gasification and melting furnace
2. Type of technology	This technology is a system that combines a fluidized bed gasification and melting furnace and swirling-flow melting furnace to melt ash economically with the energy contained in waste and to recover slag, iron, and aluminum suitable for recycling.
3. Description of technology	<p>[Objective and application of the technology] With the combination of a fluidized bed gasification and melting furnace and a swirling-flow melting furnace, various types of waste, including general waste, can be received for self-heating melting and high-efficiency power generation. Slag is recovered to significantly reduce the amount of waste to be landfilled. Metals are recovered under reducing conditions from the bottom of the gasification furnace.</p> <p>[Characteristics of the technology]</p> <ol style="list-style-type: none"> (1) Ash is melted economically using the energy contained in waste. (2) Slag, iron, and aluminum suitable for recycling can be recovered. (3) Dioxins are decomposed at high temperatures. (4) The simple furnace construction and system configuration enables safe and stable long-term continuous operation.
Objective, application, characteristics, delivery record, and price of technology	<p>[Delivery record] Domestic: 13 facilities, Overseas: 2 facilities (as of October 2011)</p> <p>[Price and other inquiries] Overseas Marketing Office, Environment Plant Division (Tokyo Office) 9-12, 5-chome, Kitashinagawa, Shinagawa-ku, Tokyo 141-8688, Japan TEL: 03-5739-6517</p>

4. Classification of technology	
(1) Applicable fields	Municipal solid waste treatment, Industrial waste treatment
(2) Target waste	Paper/cardboard, Waste plastic, Plastic bottles, Glass bottles, Steel cans, Aluminum cans, Styrene foam, Food waste/raw garbage, Construction waste, Waste oil * Metals and rubble are not melted, but recovered from the bottom of the gasification furnace.
(3) Services provided	Plant construction, Sales of machinery and equipment, Waste treatment service, Technical cooperation/licensing, Consulting
5. Countries to which this technology can be provided	Conditionally available in all countries.
6. Keywords	Fluidized bed, gasification, swirling, melting, refuse, waste, recycling, low air ratio, high-temperature combustion, self-heating, high-efficiency power generation, CO ₂ emission reduction, compact ratio, environmental burden reduction, long-term continuous operation
7. Contact information	KOBELCO ECO-SOLUTIONS CO., LTD. Overseas Marketing Office, Environment Plant Division (Tokyo Office) 9-12, 5-chome, Kitashinagawa, Shinagawa-ku, Tokyo 141-8688, Japan TEL: 03-5739-6517 URL: http://www.kobelco-eco.co.jp