# Technical Information Sheet

| 1. Name of technology | MSW gasification and ash melting furnace  
(Mitsubishi Fluidized Bed Gasification and Ash Melting System) |
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<td>2. Type of technology</td>
<td>Combination of a fluidized bed gasification furnace (partial-combustion) and vertical ash melting furnace for MSW treatment (gasification and ash melting)</td>
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| 3. Description of technology | **Objective and application of the technology**  
MSW is gasified and the gas is incinerated at over 1,300 degrees C for ash melting to reduce volume and minimal dioxin emission simultaneously.  

**Characteristics of the technology**  
i. Fluidized bed gasification furnace  
   - Gasification of MSW (partial-combustion)  
   - Extraction of valuable materials such as iron, steel, and aluminium from waste without oxidation (easy to recycle)  
ii. Ash melting furnace  
   - Ash is melted at over 1,300 degrees C for volume reduction & stabilization of residue.  
   - Melted ash becomes “molten slag,” which is a recyclable material for use in construction.  
   - Minimal dioxin emission due to decomposition at high temperature  
   - Minimal energy consumption for ash melting since this system produces flammable gas that is used in the ash melting process.  

**Delivery record**  
Kushiro Wide-Area Federation (Mar. 2006), Sanjo City (June 2012), Aomori City (Mar. 2015)  

**Price and other inquiries**  
Please contact the office and person in charge below. |
| 4. Classification of technology | (1) Applicable fields Municipal solid waste treatment, Industrial waste treatment, Recycling  
(2) Target waste Paper/cardboard, Waste plastic, Plastic bottles, Glass bottles, Steel cans, Aluminum cans, Styrene foam, Food waste/raw garbage, Waste oil, Other  
(3) Services provided Plant construction, Sales of machinery and equipment, Waste treatment service |
| 5. Expecting market | Europe, Asia, Australia |
| 6. Keywords | Recycling, gasification and melting, waste, waste gasification, melting |
| 7. Contact information | Mitsubishi Heavy Industries Environmental & Chemical Engineering Co., Ltd.  
Export Sales Group, Plant Business Department  
TEL: +81-45-227-1273  
URL:http://www.mhiec.co.jp/ |