Antler Kiln Delivery Record

Paper Mill Sludge Pyrolysis Plant

Paper mill sludge of which moisture contents 40-50% is dried and carbonized pollution free by Antler Kiln system effectively to minimize fossil fuel consumption.

Plant Size : Small
Sludge Processing Capacity : Approximately 800kg/h
Product Application : Lagging Material for Steelmaking

Plant Size : Middle
Sludge Processing Capacity : Approximately 3,500kg/h
Product Application : Lagging Material for Steelmaking

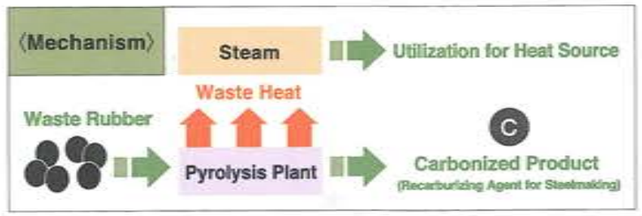
Commercial Antler Kiln (client B)

Plant Size : Large
Sludge Processing Capacity : Approximately 6,500kg/h
Product Application : Soil Conditioner

Commercial Antler Kiln x 2 units (client C)

Waste Rubber Pyrolysis Plant

Waste rubber such as car sashes is carbonized pollution free and steam generated by waste heat from pyrolysis is utilized as heat source for production and heating in plant. Effective utilization of waste heat reduced fossil fuel consumption by reducing steam consumption from existing boiler.



【Technical Data】 ・Waste Rubber Processing Capacity: 140ton/month ・Carbonized Product Production Capacity: 50-60ton/month (sale to Steel Mill as Recarburizing Agent)

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ENVIRONMENT AND ENERGY

Ecology Solution.
Recycling and energy saving technology.

HIROGAS

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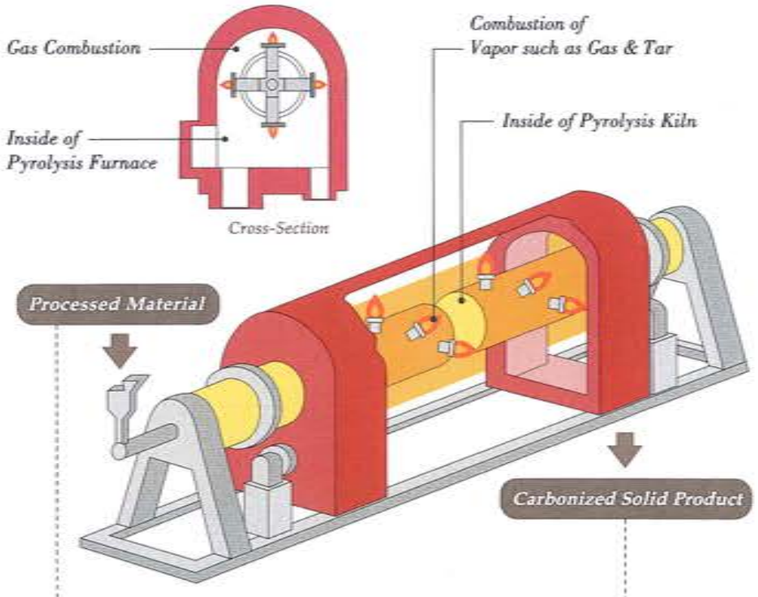
Introduction of Antler Kiln

of HIROSHIMA GASTECHNO・SERVICE CO.,LTD.

Antler Kiln is a highly efficient and reliable pyrolysis technology to produce semi-coke and char from organic waste and biomass such as woody waste and palm kernel shell (PKS) without any trouble of by-product tar.

Feature of Antler Kiln

Antler Kiln provides solution for recycling organic waste and upgrading biomass by utilizing environmentally -clean pyrolysis technology.



Mechanism

Organic waste and biomass are carbonized without air by in-direct heating of self-sustaining combustion of by-produced gas and tar, and only solid product such as semi-coke and char is produced. Moisture content of feed material for Antler Kiln is required under 15% to keep the flame of gas & tar combustion. HIROSHIMA GASTECHNO・SERVICE CO.,LTD successfully developed novel pyrolysis technology by industrializing conventional and proven pyrolysis technology without environmental pollution.

Application of Carbonized Solid Product

Carbonized solid products from organic waste and biomass are utilized as follows.

- **Soil Conditioner**
- **Lagging Material for Steelmaking**
- **Recarburizing and Reducing Agent for Steelmaking**
- **Water Cleanup Agent**
- **Odor Eliminating and Deodorizing Agent**
- **Fuel for Power Generation**

Test & Research Facilities

HIROSHIMA GASTECHNO・SERVICE CO.,LTD has several test facilities to provide best solution for client by utilizing Antler Kiln. Test results clarify the quality of carbonized solid product, best pyrolysis conditions and commercial performance & design.

[Test Dryer]

Wet material is dried to determine required heat quantity. Approximately 50kg wet material is processed per hour.

[Continuous Pyrolysis Test Kiln]

Processed material is carbonized continuously to determine best condition such as temperature and retention time. Approximately 20-30kg material is processed per hour.

[Batch Test Pyrolysis Furnace]

Favorable feed material size is 20-30mm for Continuous pyrolysis test Kiln. In case of keeping original material shape or being hard to crash, batch type test is applied to clarify best pyrolysis conditions. Batch test pyrolysis furnace has 80 liter volume.