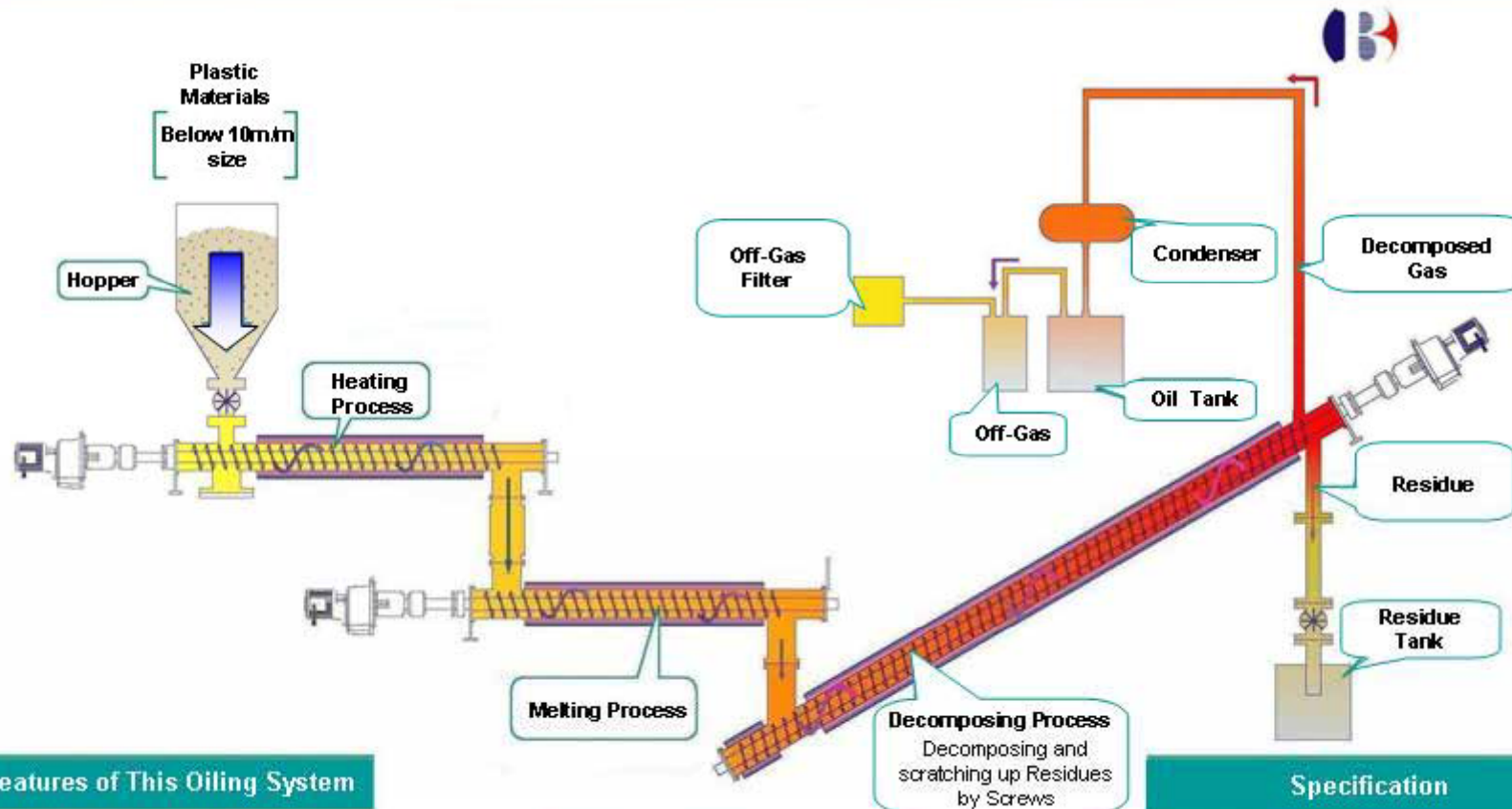


Flow chart of waste Plastic Oiling System



Features of This Oiling System

- Regulation is not so restricted, because of Compact Size and Low Capacity.
- Easy Movable and Small Space is enough.
- PP, PE and PS are available for Oiling.
- Needless Supplies Facility because of Limited Materials.
- Low Price and Low Risk.
- Using Electric Heater, Easy Temperature Control is Gained.
- Less Explosion Risk due to the Operation under the Atmospheric Pressure.
- Needless Special Training and Skill, because of Simple Operation.

Operation Flow

- 1) Charge the Crushed Plastic through the Hopper.
- 2) Heat and Transfer the Materials to the Melting Process by Screws.
- 3) Decomposing the Materials and Vaporizing them.
- 4) Oil Gained after Cooling Vaporized Materials by the Condenser.

Specification

Model No. : Continuous Oiling System Bester B240
 Capacity : Approx. 10Kgs/A
 Dimension (mm) : 2600(W) × 1950(D) × 2800(H)
 Weight : Approx. 2600Kgs.
 Power Source : 200V/3P, Max. 60A
 Running Cost : Approx. 8kW/h

* Custom Oiling Systems are available.

Model Project for New Technology & New Social System toward Low Carbon Society Consigned by the Ministry of Economy, Trade and Industry in 2009



Solar Panel → Plant



Plastic to Oil Machine: B 2 4 0 (10Kg/Hr)



Refiner : B O R 5 0 (50L/2.5Hrs)

Plastic-to-Oil Total System in an isolated island
(at Tokunoshima Island in Kagoshima Pre.)

Generated Electricity by Solar Panel is supplied to Oil Making Machine. Surplus Electricity is used for operating water treatment equipment in Clean Center.

Oil Ratio : 89.68% was achieved in 24Hrs continuous operation .
30tons CO₂ reduction will be expected in a year . (8Hrs /day)

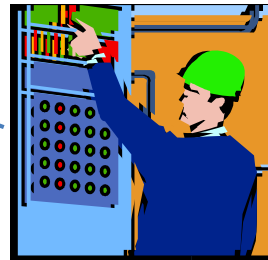


Plastic Waste



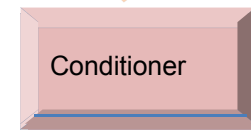
Plastic Oil

Control Panel



Solar Panel

Direct Current



Conditioner

Alternating Current



Tokunoshima Clean Center

Enlightening Activity in Tokunoshima Island

Environmental Class

10 Elementary Schools, 6 Junior High Schools and 3 Local Organizations



METI / Blest Co., Ltd

Continuous Oiling Machine B240

Tokunoshima Island Project

Left: Refiner
Right: PS16

Center : B240



Oil Tank of B240



Refiner Machine for Hydrocarbon Oil BOR



PS Oiling Machine PS16

Tokunoshima Island Project

Styrofoam –to–Ingot Machine



Granulator of the Plastic Film



Solar Panel



Tokunoshima Island Project:
Environmental Class



Reduction of CO2 Emission (Comparison between Current Method and New)

Current Processing Method

Plastic Waste

Incineration ⇒ CO2 Emission
 Burning 1Kg generates 2.77Kg CO2 Emission



2770g/k g

User of Boiler

- a) Heavy Oil ⇒ CO2 Emission
or
- b) Kerosene ⇒ CO2 Emission



Other Factors

Collection and Transportation
 generates CO2 Emission



New Processing Method (Plastic to Oil)

Plastic Waste

Plastic-to-Oil Machine Consumes Electricity

1 kWh/Kg generates 418g CO2 emission

Processing Exhaust

2 : 194g/Kg

(Blest's Estimation)

2770-418-194 =

2158g CO2 Reduction

This figure is only for reference.

418g /k g

194g /k g



User of Boiler : Saving Resource

Plastic Oil ⇒ CO2 Emission



Other Factors

Plus, Transportation of Plastic Oil to User
 generates CO2 Emission.

Efficient Transportation is needed, like
 School Oilfield.



2.77KgCO2/Kg Data from The Ministry of the Environment. 418gCO2/Kg Data from Tokyo Electric Power Company.