

PROCESS - AUTOCLAVE

Standard system

2 autoclaves

Annual processing capacity
(Black bag household waste)

160,000 tons per year (150,000 tons)
 460 tons per day (440 tons per day)
 350 days per year (340 days per year)
 23 hours per day (22 hours per day)

Individual Autoclave load capacity
(Load capacity per cycle)

10 tons per vessel (20 tons 2 vessel system)

Cycle time per one load
(Varies with moisture content, ambient temperature, and composition)

Design basis: 5 min load, 5 min unload
 45 min +/- variable processing cycle

Maximum process temperature

347°F (variable)

Steam requirement per cycle: one vessel
two vessels

10,000 lbs/hour @ 115 PSIA
 20,000 lbs/hour @ 115 PSIA

PROCESS - ENERGY

Electrical, plant maximum consumption
Stand-by generator
Back up from grid

500Kw
 500kW, 480V, 3ph
 500kW, 480V, 3ph

Electricity generation (maximum capacity)
using gasifier direct-coupled with gas turbine generator

From recovered **fiber** Up to 10Mw
 From recovered **plastics** Up to 10Mw

Steam, plant generation (depending on selection of electricity generation technology)

20,000 lbs/hour to approx. 30,000 lbs/hour

PROCESS - ENVIRONMENTAL

Air emissions		Baghouse preferred for particulate capture Wet ESP in sensitive areas (Possibly other equipment if required for capture of selected emissions)
Water discharges		Access water is treated by evaporation, precipitation, cooling prior to discharge to approved locations
Access water		Access water can be treated to desired level of purity
Hazards	Pre-process	Monitoring for hazardous contaminants. Isolation followed by treatment and/or proper disposal.
	In-process	Each batch (10 tons) is in-process analyzed for hazardous contaminants of concern. Therefore, 100% of the MSW processed by the plant is tested. When a “hazardous” contaminant levels are detected, the batch is isolated and handled in accordance with the applicable regulations.
Permitting - Air		Standard plant is considered <i>de minimis</i> for air emissions. It is permitted in accordance with the state rules.
Permitting – Solid waste		Some states regulate MOD-3 process as a recycle/recovery facility not subject to landfill permits. In other states the MOD-3 facility can be located on existing, permitted landfill or transfer station sites.