



General Manufacturing Specifications

Greenline 3 MGY Biodiesel plant

Manufacturing Specifications and Plant Capacity

- Biodiesel Processor, pipe in/pipe out, including
 - Transesterification Reaction and Separation Modules
 - TEFC pumps
 - Methanol Recovery System
 - Waterless product polishing system
 - Filtration System to 5.0 micron
 - Automation, Sensors and Valves
- Finished biodiesel production met ASTM D6751 or EN Standard.
- Glycerin to be 85-90% pure, dependent upon feedstock quality and type of catalyst.
- Skid-mounted modular design with small footprint.
- Continuous flow system with level 3 automation (full PC Interface).

Approximate process consumables for 3 MGY

- Virgin vegetable oil 3,000,000 gallons per year
- Potassium Methylate -60,000 gallons (30/70% solution) depending on feedstock
- Methanol 300,000 gallons (0.125 gallon/gallon BD with 50% recovery rate)
- Ion Resin filter medium ~12 tons per year
- Electricity usage < 200 H.P operating H.P.

Approximate Yields

- 3,000,000 gallons biodiesel, per 8,400 hours operation
- 306,000 gallons glycerin (85-90% pure, dependent upon feedstock quality and type of catalyst)

Site Specification Requirements

- Electric Power requirements: Customer to provide main power transformers with 480v 3-phase 800 amp service, plus 110v 1-phase power
- Compressed air: 100 cubic feet per minute at 125 psi dried to -30F. Air receiver tank approx. 400 gallon capacity
- Water: No water used

Site Requirements

CF-3 Plant (3MGY)

50 Weeks

Approximate Inputs
 Feedstock Used/ Week
 Methanol Used / Week
 Catalyst Used / Week

60,000 Gallons
 ~6,000 Gallons
 1200 Gallons

Approximate Output Production

Biodiesel produced / week
 Water Produced / Week
 Glycerin Produced / week
 Waste Stream / Week (non Toxic Ion Resin)

60,000 Gallons
 No Water Used
 ~6,000 Gallons
 500-600 Pounds

Site Requirements

Building	4,000 - 5,000	Sq. Ft
Property	40,000	Sq. Ft
Access	Truck/ Rail	
Zoning	Industrial	
OSHA	General Safety	

Tankage

Methanol	Buyer 20,000	Gallons
Feedstock/ rework	Buyer 40,000	Gallons
Catalyst	Buyer 12,000	Gallons
Biodiesel	60,000	Gallons
Output Water	none produced	
Output Glycerin	500-600	Pounds

Pipe Sizes

Oil pipe in	1-1/2"
Methylate in	1/2"
Methanol in	1/2"
Glycerin out	2"
BD Fuel pipe out	1-1/2"

Building

Footprint	4,000 - 5,000	Sq. Ft
Layout Preferred	Rectangle	
System footprint	2,400	Sq. Ft
Length	12x14	
Door size, Min. Access	22	Ft
Ceiling	Per OSHA	
Ventilation		

