



NextGen Fuel^{INC.}

Biodiesel Production Technology Specifications

Equipment:	Continuous skid-mounted chemical process plant with system capacities of 5MMGY or 10MMGY for a single production unit. Includes feed, preparation, reaction, separation, alcohol recovery and product clean-up. Multiple reactors can run in parallel to meet desired total capacity.
Process:	Continuous base catalyst reaction using proprietary process intensification and advanced separation technologies.
Throughput:	8 to 12 gallons per minute of biodiesel for the 5MMGY design.
Feedstock:	Virgin vegetable oils and rendered fats and oils. Higher than typical yield for high FFA concentrations; systems can natively handle up to 8% FFA. Higher FFA concentrations will require optional esterification system.
Catalyst:	Sodium or potassium hydroxide, sodium methoxide.
Alcohol:	Methanol or Ethanol
Scalability:	Modular skid-based approach allows high-degree of flexibility and scalability.
Output:	ASTM D 6751 and European EN 14212 spec-grade biodiesel.
Co-product:	Crude glycerin as high as 90% refined
Operational Controls:	Process requires minimum operator intervention and can be fully automated with the use of closed loop PID control systems, including real time product analysis and control system.
Water Stream:	Configurations available for zero water discharge; utilizes minimal water for open or closed loop cooling.
Safety Design:	Pressure and construction certification provided; Class I, Div II electrical classification; Class I, Div I option is available.
Footprint:	Entire process fits with 40' x 20' area for each 5MMGY system; 50' x 20' area for each 10MMGY system.
Warranty:	1 year on equipment and workmanship, manufacturer's warranty carried on all parts.
Manufacturing:	Manufacturing time from order is approximately 12 to 18 weeks f.o.b. NextGen's manufacturing facility.

**The above lists parameters for typical conditions; system is adaptable to specific requirements which may change indicated data.



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