

# BIO - DIESEL PLANT



**SPECTEC**<sup>TM</sup>  
TECHNO PROJECTS PVT. LTD



[www.spectecindia.com](http://www.spectecindia.com)

# About Biodiesel?



Biodiesel is an alternative fuel that comes from 100% renewable resources such as vegetable oil, soybean oil, animal fat or tallow. As a renewable and domestic source of energy, biodiesel can help reduce the dependence on petroleum imports. Biodiesel is not a petroleum product, but can be mixed with petroleum diesel to produce a biodiesel blend that can be used in a variety of vehicles. Biodiesel fuel, can be used in it's unaltered form in unmodified diesel engines, making it one of the easiest alternative fuels to use.



**Crude  
Biodiesel**



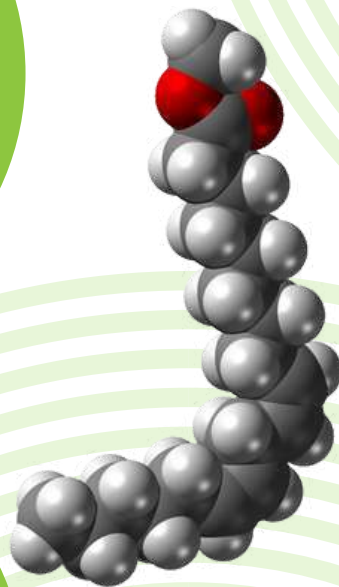
**Distilled  
Biodiesel**



# Input Feed For Bio-Diesel Plant

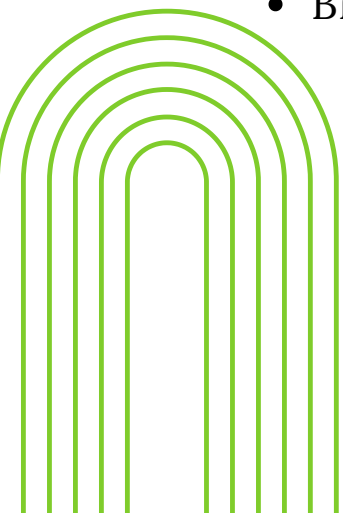
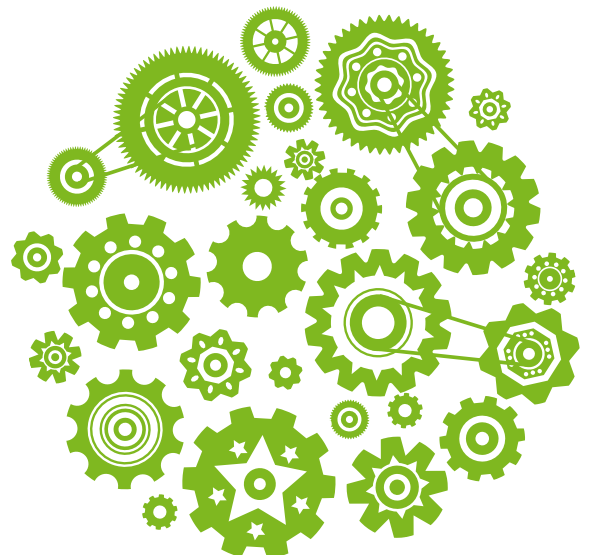


- Used Cooking oil
- Fatty acids
- Acid oil
- Animal Fat (Tallow)
- Palm Stearin



## • Features of Bio Diesel Plant:

- Bio diesel is a clean burning fuel.
- Bio diesel does not have any toxic emissions like mineral diesel.
- Bio diesel is made from any vegetable oil such as Soya, Rice bran, Canola, Palm, Coconut, mustard or peanut or from any animal fat like Lard or tallow.
- Biodiesel is a complete substitute of Mineral diesel (HSD).
- Bio diesel is made through a chemical process which converts oils and fats of natural origin into fatty acid methyl esters (FAME).
- Biodiesel IS NOT vegetable oil.
- Biodiesel is intended to be used as a replacement for petroleum diesel fuel, or can be blended with petroleum diesel fuel in any proportion.
- Bio diesel does not require modifications to a diesel engine to be used.
- Bio diesel has reduced exhaust emissions compared to petroleum diesel fuel.
- Biodiesel has lower toxicity compared to petroleum diesel fuel.
- Bio diesel is safer to handle compared to petroleum diesel fuel.
- Biodiesel quality is governed by ASTM D 6751 quality parameters.
- Biodiesel is biodegradable.



# INDIAN BIODIESEL SPECIFICATION STANDARD (BS-100)



## PARAMETER

- Ester content, min
- Density at 15 o C, max
- Viscosity at 40 o C
- Flash point, min
- Sulphur content, max
- Cetane number, min
- Water, max
- Methanol, max
- Ethanol, max
- Acid value, max
- Free glycerol, max
- Total glycerol, max
- Phosphorus content, max

## VALUE

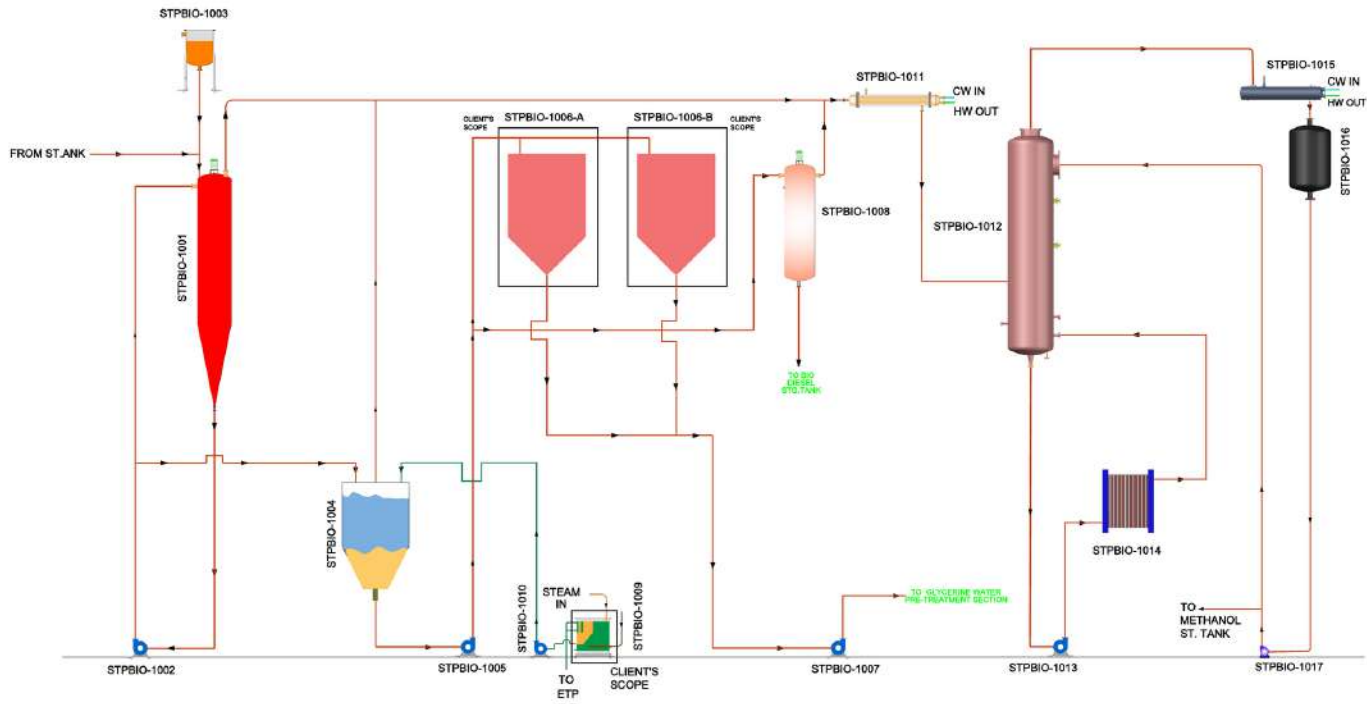
- 96.5 % (m/m)
- 860 – 900 kg/m<sup>3</sup>
- 2.5 – 6.0 mm<sup>2</sup> /s
- 120 o C
- 50.0 mg/kg
- 51.0
- 500 mg/kg
- 0.20% (m/m)
- 0.2 % (m/m)
- 0.5 KOH/g
- 0.02 % (m/m)
- 0.25 % (m/m)
- 10 mg/kg

# BIO DIESEL PLANT ON MULTI FEED STOCK PROCESS FLOW

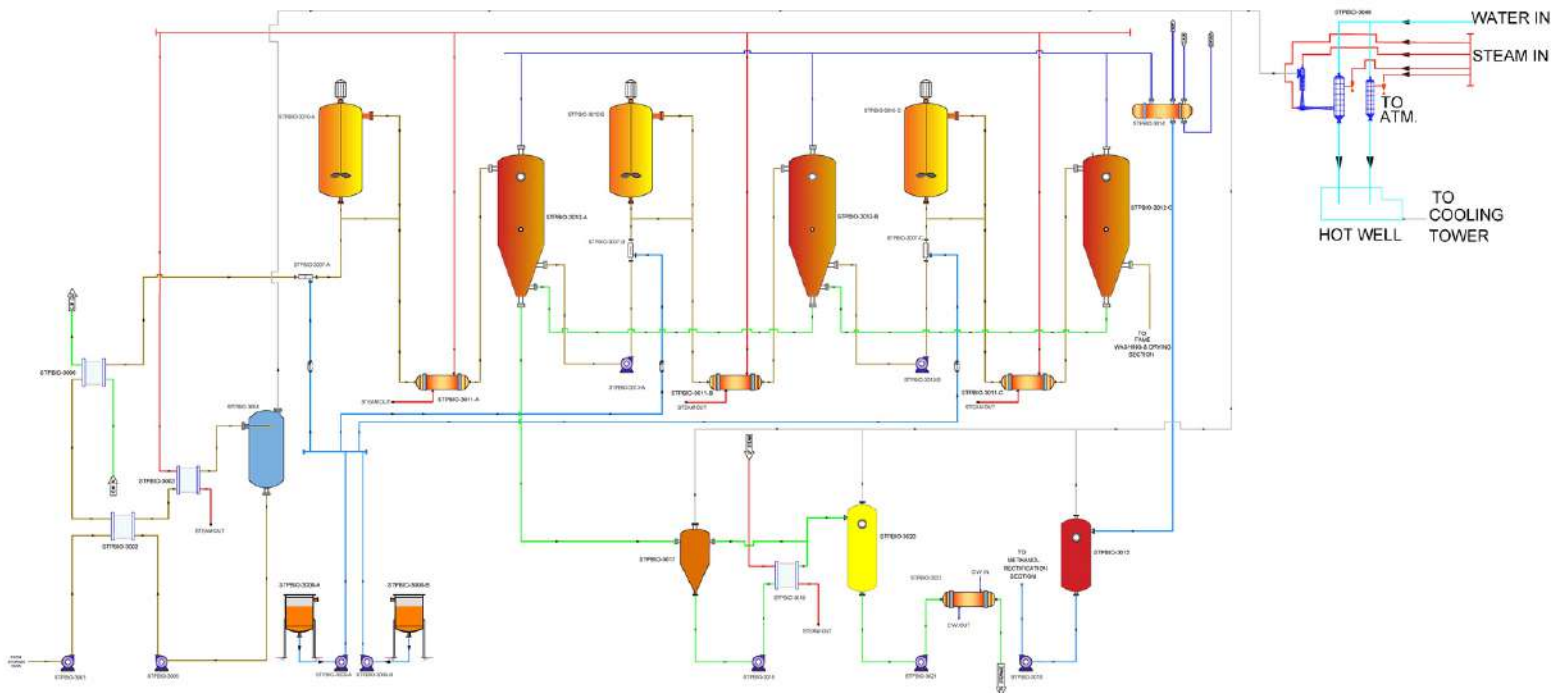




# BATCH BIO DIESEL PLANT



# CONTINUOUS BIO DIESEL PLANT



# Advantages of Bio Diesel Plant



- Renewable Fuel
- Improved ignition
- Higher engine efficiency
- Higher Lubricity - can prolong engine life
- Used directly in unmodified diesel engine
- Less noxious - fuel & exhaust emissions
- Not toxic, free of Sulphur
- Safest fuel to store and handle
- Much higher flash point
- No aromatics or carcinogens
- Biodegradable







## About Spectec Techno Projects Pvt. Ltd.

Spectec Techno Projects Pvt. Ltd was established in 2007 for indigenously manufacturing and supply of plant & machineries, Turnkey Projects for Edible oil Industry. Today Spectec Techno Projects Pvt. Ltd is reckoned in the edible oil Industry as a trusted technology partner & supplier of Solvent Extraction Plant, Edible oil Refinery, Oleo chemical projects, Projects for Value Addition, Soap & Soap Stock Plant, Cattle & Poultry Feed Plant and Bio Diesel Plant.

With respect to Green Fuel Segment, Spectec Techno Projects Pvt. Ltd has made a mark by introducing latest technology for producing Bio Diesel. Its technology ensures processing of Biodiesel using multiple input feed, thus giving 100% flexibility to the processor to run the plant and produce Biodiesel of BS-100 Grade, with any of or multiple of the input feed material available (Fatty Acid, UCO, Palm Stern, Animal Tallow or Acid Oil).

Bio Diesel Plants offered by Spectec Techno Projects Pvt Ltd are customised, highly energy efficient and ensures better productivity with lower operating cost .

Spectec Techno Projects Pvt. Ltd, is known for its commitment towards its customer's satisfaction and determination in maintain High Quality standards in its projects. MSME Export Excellence Award for Leader in Quality Excellence is a testimony to our continued commitment towards quality excellence.

**Spectec Techno Projects Pvt. Ltd has its customer base in 15 countries across the globe.**



**Head Office:** Office no.905,9th Floor, Ansal Bhawan Kasturba Gandhi Marg, Connaught Place, New Delhi-110001.(INDIA)  
Tel.:+911123712125,23352125



**Corporate Office & Factory :** Office no.: 19, Udyog kshetra, Linkroad, Mulund(w) Mumbai 400080 (INDIA)  
Tel.:+912225682125,25912125



**REGD.OFFICE:** CB-254,Off.No.1, 1st Floor, Ring Road, Naraina, New Delhi-110028.INDIA)  
Tel.:+911125777393,25774125



Email : [info@spectecindia.com](mailto:info@spectecindia.com), [info@spectecgroup.com](mailto:info@spectecgroup.com)



Contact Number : +918470042125 +918178786725 +919311502125

(Hot Line - 24\*7)