

H-BIO-100 Bio Diesel Demonstrator

Purpose

The Hampden **Model H-BIO-100** Bio Diesel Demonstrator is ideal for educational purposes, using the same protocol and with the same quality construction as the large scale units. The rugged design, capacity and ease of use make this unit ideal for teaching and experimentation. The H-BIO-100 is capable of producing up to 26.5 gallons per batch with High Temperature Pressurized Process (HTP) which consistently delivers 98% or better conversion ratios. Proper use of the unit and HTP delivers ASTM and EN compliant Biodiesel, without the need to wash.

Description

The Hampden **Model H-BIO-100** Bio Diesel Demonstrator has been designed, and is offered, specifically to Universities and Teaching organizations. The H-BIO-100 allows for experimentation with a large variety of variables like pressure, temperature, time to temperature,

time, proportions, feedstock types, etc. Batches from 25 to 100 Liters can be made.

Thanks to its variable speed pump, students can experiment with different agitation speeds. Speeds can range from 10% to 200%. Includes a three phase shielded motor, which allows the H-BIO-100 to work at higher pressure and temperature ranges. The H-BIO-100 units include more heating elements per square centimeter than other units, this allows the units to reach higher temperatures, faster and experiment with heat transfer time.

Features

- 26.4 gallon batch capacity
- SAE 1010 low carbon steel construction
- TIG welded
- High performance proprietary static mixer
- Oil flow meter
- Ceramic heat transfer units

- Epoxy paint finish
- EC 4/94 (ATEX) compliant
- Independent methanol, NaOH and Oil input circuits
- 4" steel case pressure gauge
- Preset safety valve
- Dedicated full time venting
- Sight tube volume control
- Emergency Stop
- Digital Thermometer and Thermostat
- Dedicated Glycerol heating element
- 90° valves w/ bronze body, chromed sphere and nylon 6 seals
- Cast iron high volume centrifugal pump with carbon ceramic NB high temperature seal
- Control panel with individual circuit protection
- BioVac Excess Methanol, vacuum extraction unit
- 20 Micron Exit Filter
- Dedicated Glycerol and Biodiesel Valves
- All around thermal insulation
- Transparent drain line
- Input: 220V - 1Ø - 30A - 60Hz



Shipping Weight: 600 lbs
Dimensions: 40"D x 38"W x 74"H

- ❖ Biodiesel is a renewable fuel which replaces fossil diesel fuel advantageously
- ❖ Produces 26.4 gallons per batch, up to 75 gallons a day
- ❖ Protocol accepts used and new vegetable oils and animal fats
- ❖ Quality fuel every time with no washing
- ❖ Average batch time: 1 hour
- ❖ Average settling time: 6-8 hours

All Hampden units are available for operation at any voltage or frequency

Hampden
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