

FuelPro

Biofuel Metals Analyzer



TOTAL METHOD COMPLIANCE



TELEDYNE LEEMAN LABS
A Teledyne Technologies Company



FuelPro

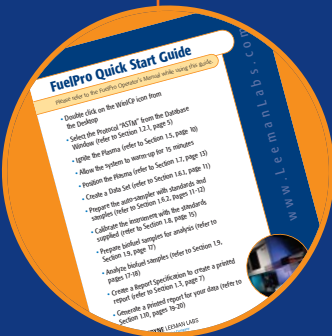
Biofuel Metals Analyzer

Biodiesel is a renewable fuel produced from sources such as vegetable oils, animal fats and waste cooking oils. The resultant biodiesel is usually blended with traditional petroleum diesel forming a grade of fuel which can then be used as a standard diesel product (e.g. B20). Since the presence of contaminants in fuel can lead to operational problems, organizations around the globe have developed standards against which biodiesel can be tested. For example, ASTM method D6751 and EN 14214 both require the analysis of elements which have detrimental effects if specific concentrations are exceeded.

Phosphorus has been shown to damage the ability of after treatment systems to reduce exhaust emissions as intended.

Sodium, Potassium, Calcium and **Magnesium** as residual metals, can form deposits in fuel injection system components and poison the after treatment systems.

Sulfur levels are regulated to comply with emission standards.

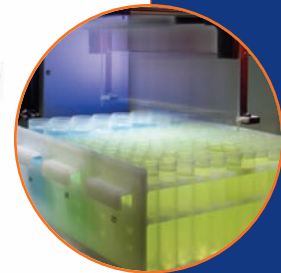


The FuelPro Biofuel Metals Analyzer:

Specifically Designed	For the Analysis of BioFuel
Fully Compliant	with both ASTM D6751 and EN14214 for metals analysis
Pre-Configured	The FuelPro Analyzer is pre-programmed with all methods and procedures to ensure a smooth start-up
Analysis Package	All reagents and training required to get you up and running with FuelPro are included
Built to Last	Designed with you in mind, where quality and production go hand-in-hand
Upgradeable	Should regulations change, FuelPro is designed to be upgradeable



Total Method Compliance



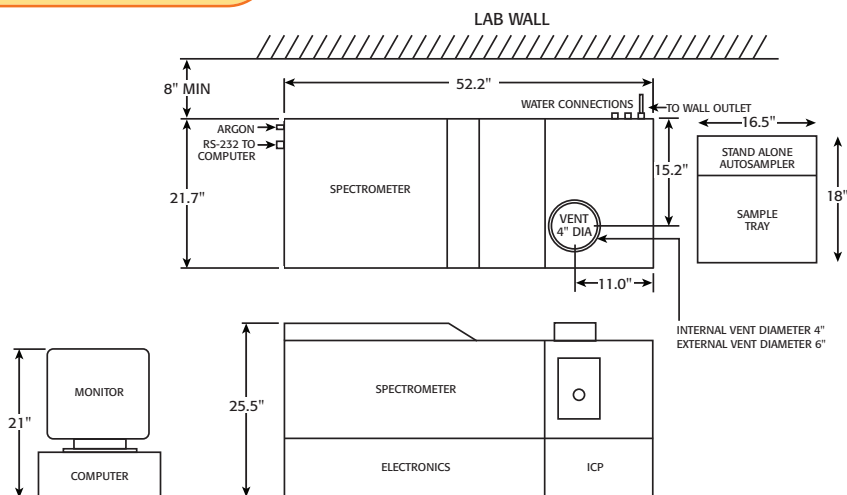
Required Analysis

Element	Concentration in Biodiesel (ppm)	ASTM D-6751 Specification (ppm)
Phosphorus	< 0.02	10 max
Calcium + Magnesium	0.17	5 max
Sodium + Potassium	0.76	5 max
Sulfur	8.23	15 max

FuelPro Analytical Results for a Biodiesel B100 Sample
(FuelPro analysis time = 3 minutes/sample)

FuelPro, designed to meet all of your current biofuel metals analysis requirements, with the ease-of-use, support and upgradability to meet regulatory demands in the future.

Installation Requirements



Electrical Requirements

FuelPro operates on single-phase power at 190-230V, 30A, 50/60 Hz. We recommend the line be protected with a 30A circuit breaker and that the circuit breaker be located near the instrument. Outlet type: Hubbell Twist-Lock (part number 2620A) receptacle (NEMA L6-30R), within 9 feet (2.75 meters) of the power supply.

Argon

The use of industrial grade argon of 99.995% purity, or better, is required. Use either gaseous or liquid argon (liquid is more economical for large sample loads). Argon is an inert gas and not toxic. However, always follow the safety information provided by your gas supplier. Delivery pressure to FuelPro must be regulated to a maximum of 90 psi and a minimum of 80 psi.

Ventilation

Installation of a 6-8" (150-200 mm) stainless steel or corrosion resistant flexible exhaust above the chimney is required for proper ventilation. The outer diameter of FuelPro's exhaust chimney is 6" (150 mm).

FuelPro Source

(mounted in a single base chassis on 1" (25 mm) rubber feet)

Length:	Base 52.2" (1326 mm)
Depth:	Base 21.7" (550 mm)
Height (to the top of the chimney):	28" (710 mm)
Diameter of the chimney:	6" (152 mm)
Weight:	230 lb. (104 kg)

Computer including monitor and keyboard

Length:	17.5" (445 mm)
Depth:	26" (660 mm)
Height:	21" (533 mm)
Weight:	56 lb. (25.5 kg)

Printer

Length:	17" (432 mm)
Depth:	15" (380 mm)
Height:	7.5" (190 mm)
Weight:	11.5 lb. (5 kg)

The printer should be placed on the lab bench, or on a separate table within 4 feet (1.2m) of the monitor.

Contact Information

North American

6 Wentworth Drive • Hudson, NH 03051 U.S.A.
Tel: 603.886.8400 • Fax: 603.886.9141
LeemanLabsInfo@Teledyne.com
www.LeemanLabs.com

Teledyne Germany GmbH

Leeman Labs Europe • Köpfchenstr. 1, D-57223 Kreuztal Germany
Tel: 49 2732 4020 • Fax: 49 2732 4010
info@leemanlabs.de

China

Leeman Technology Ltd., China • Beijing 100029, P.R.C.
Tel: 86 10 8284 9949 • Fax: 86 10 8284 9929
www.leemanchina.com

Central and South America

D. D. Diaz & Dupont, C.A. • Caracas, D.F. 1010, Venezuela
Tel: 58 212 563 3072 • Fax: 58 212 563 4523
diaz-dupont@unete.com.ve