

Fuel Composition

DIESEL FUEL

- DYE/MARKER CONCENTRATION
- ASTM COLOR

JET FUEL

- RED DYE CONTAMINATION
- SAYBOLT COLOR



Portable Fuel Color Analyzers

ADVANTAGES

- **Fully automated**
- **Results in 5 seconds**
- **No sample preparation**
- **Low cost test method**
- **Highly advanced laser and LED photometrics**
- **No technical training**
- **Field or lab use**
- **Universal PetroSpec calibrations included**

DT-100C AND JT-100S

Testing fuels with PetroSpec's fuel dye and color analyzers is **fast and accurate**. Just load samples and, within seconds, results automatically display on-screen and transmit via an RS 232 connection for easy data collection. Absorbance is measured at several wavelengths for **precise determination** of background color and dye/marker concentration.

PetroSpec's DT-100C Diesel Fuel Analyzers and JT-100S Jet Fuel Analyzer are **compact, convenient, and inexpensive instruments** dedicated to detection of dye/marker concentration (or contamination) and color in middle distillate fuels. They provide the **only automated means of determining ASTM and Saybolt color in the presence of red dye**.



DT-100C-x: Diesel Fuel Dye/Marker & ASTM Color

- > Fuel labs
- > Pipeline terminals and racks
- > Retail stations
- > Equipment fleets

JT-100S: Jet Fuel Red Dye & Saybolt Color

- > Fuel labs
- > Pipeline terminals and racks
- > Retail stations

METHODS

- ASTM D 156
- ASTM D 1500
- ASTM D 6756

FUEL DYE/MARKER & COLOR ANALYZERS:

Quickly and precisely determine background color, dye & marker concentration

ORDERING INFORMATION				
Diesel Fuel Analyzers		ANALYTES		
DT-100C (120 VAC)	Red Dye (ASTM D 6756)	ASTM Color (D 1500, D 6756)		
DT-100C-I (240 VAC)	Red Dye (ASTM D 6756)	ASTM Color (D 1500, D 6756)		
DT-100C-S (240 VAC)	Solvent Red 19 Solvent Red 24 Solvent Blue 79	Solvent Yellow 124 Furfural Quinizarin		
Jet Fuel Analyzer				
JT-100S (120 VAC)	Red Dye	Saybolt Color (D 156)		
SPECIFICATIONS				
	DT-100C-x Diesel Fuel Analyzer		JT-100S Jet Fuel Analyzer	
Detection Method				
Visible Spectroscopy	Highly accurate method that uses light to probe a fuel sample to determine its composition and predict properties such as red dye and background color. Markers are analyzed in extracted form.			
Optical Design	Laser and LED photometric techniques measure absorbance at selected wavelengths			
Performance	Red Dye* (mg/l)	ASTM Color D 1500/6756	Red Dye* (mg/l)	Saybolt Color D 156
Resolution	0.10.1	0.001	0.1	
Repeatability	±0.08	±0.1	±0.006	±1.1
Reproducibility	±0.2	±0.6	±0.026	±5.0
Measuring Range	0-25 -	0-8 (dyed fuel: 0-5)	±0.01 to 0.75 -	-16 to +30 -
Sample Size	4 ml/4 ml	80 ml	80 ml	
Response Test Time	5 seconds	5 seconds	5 seconds	5 seconds
	* Solvent Red 26		* Solvent Red 26	
Analysis & Results				
Precalibrated	Each unit is factory calibrated. Verification samples are available to check for proper performance.			
Display	4 lines x 20 column LCD with back light			
Communication	Automatic export via RS 232 serial port; 9600 Baud, 8 bits, 1 start, 1 stop, no parity			
Physical				
Cabinet/Chassis	Fully portable; rugged aluminum with baked epoxy coating			
Utility Requirements	120 or 240 VAC 50/60 Hz		120 or 240 VAC 50/60 Hz	
Instrument Size	15 x 20 x 10 cm; 1 kg		25 x 20 x 10 cm; 2 kg	

Due to continuing product development, specifications subject to change at any time without notice.

ACCESSORIES

	DT-100C-x Diesel Fuel Analyzer	JT-100S Jet Fuel Analyzer
Included	120 or 240 VAC power adapter 6 disposable cuvettes 6 disposable pipettes Instructional video Operating manual	120 VAC power adapter 1 reusable sample cell Instructional video Operating manual
Recommended	Battery pack Cigar lighter power adapter adapter Sampling Kit: 100 cuvettes/pipettes Verification samples	Battery pack Cigar lighter power adapter

SIMPLE, DEPENDABLE, ACCURATE DETECTION

- Accurate results in seconds
- Lightweight, compact, conveniently portable design
- Fast, fully automated, easy to use by non-technical personnel
- For dye analysis, the analyzers automatically compensate for the background color of the fuels and precisely report the dye content
- For color analysis, the analyzers automatically compensate for the red dye color and precisely report the background color

PRECISE, LOW MAINTENANCE OPERATION

- Precise determination of background color and red dye concentration in jet fuel and other middle distillate fuels
- Virtually maintenance free under normal operating conditions
- In extremely dirty environments, or in the case of a spill, the sample chamber requires only swabbing with a cleaning cloth

RELIABLE OPERATION, DEDICATED SUPPORT

- Expert sales and service from PAC's worldwide network of factory trained authorized representatives
- Quality construction & reliable operation backed by factory-direct 12 month warranty with telephone technical support
- Intensive customer training at your site or ours

FOR ADDITIONAL INFORMATION

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YOUR LOCAL REPRESENTATIVE: