



# Petroleum Systems Services Corporation



## Rapid Tester®

*the most advanced instrumentation for flash point verification. Simple to operate, the Rapid Tester® is ideal for routine flash point testing including:*

### Quality Assurance

Verify the formulation of liquid products with flammable ingredients.

### Compliance Testing

Often required by regulatory agencies before transport or disposal of liquids.

### Fuel Dilution

Determine the relative percentage of fuel in engine crank case oil to forecast the need for engine rebuilding.

### Fast Test-Small Sample

Test time is only one minute with a 2 ml sample for flash points below 212°F (100°C). You can run ten tests with the Rapid Tester in the time that it takes to perform just one by other methods - an impressive accomplishment. The 2 ml/4 ml sample is a fraction of the large sample required by other flash point methods. This reduces sampling and disposal problems while improving safety.

### Two Models

*The Rapid Tester Closed Cup Model RT-01* has a testing range from -22° to 572°F (-30° to 300°C). *Open Cup Model RT-02* tests for flash point levels from ambient to 212°F (100°C).

### Compare Results

Independent laboratory testing has demonstrated that the ASTM D 3828 test method utilized by the Rapid Tester correlates well with other flash point methods. In ASTM D-2 Round Robin testing it was found that the ASTM D 3828 test method has the following correlation coefficients:

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D 3828 (Rapid Tester)  
vs. D 56 (Tag) = 0.9949

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D 3828 (Rapid Tester)  
vs. D 93 (Pensky-Martens) = 0.9943

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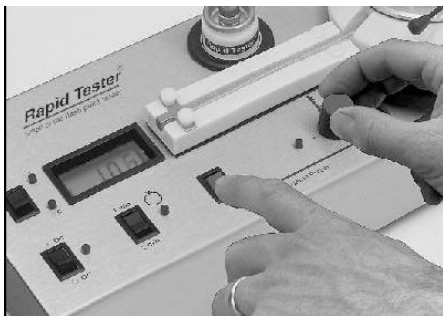
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D 56

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### Easier to use than ever!

Follow these 3 simple steps for fast accurate flash point values:



1. Adjust set-a-temp to the target test temperature.



2. Inject 2 ml or 4 ml sample material into the sample cup. Wait one or two minutes for vapor equilibrium to occur.



3. Introduce test flame - observe flash or no flash.

*Test complete.*



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## Specifications

The Rapid Tester is a semiautomatic instrument for determining the flash point temperature/combustibility of flammable liquids. Closed cup test temperatures from ambient to 572°F (300°C) are automatically controlled by the set-a-temp adjustable digitally preset target temperature circuitry. Integral digital LCD display, NIST traceable thermometer, disposable fuel tank and electronic timer are standard.

In accordance with: ASTM D 3278	"Flash Point of Liquids by Small Scale Closed Cup Apparatus"
ASTM D 3828	"Flash Point by Small Scale Closed Tester"
ASTM D 4206	"Sustained Burning of Liquid Mixtures by Setaflash Tester (Open Cup)"
BS 3900 Part A 11	"Small Scale Test for Combustibility"
BS 3900 Part A 13	"Rapid Test for Flash Point- Danger Classification"
BS 3900 Part A 14	"Rapid Tests for Flash Point- Paints and Varnishes"
CPSC CFR 16-1500.43a	"Federal Hazardous Substances Act Regulations"
DOT CFR 49-173.115	"Flammable, Combustible, and Pyrophoric liquids, definitions"
IATA Resolution 618 Attachment A	Section 3.3.4 and 3.3.5
IP 303	Flash Point by Closed Rapid Tester"
ISO 3679	"Paints, Varnishes, Petroleum and Related Products - Determination of Flash Point - Rapid Equilibrium Method"
ISO 3680	"Paints, Varnishes, Petroleum and Related Products - Flash/No Flash Test - Rapid Equilibrium Method"
OSHA 29CFR 1910-106	"Program Directive 100"
OSHA 29CFR 1910-1200	"Hazard Communication"

## Characteristics

### Performance (RT-01)

Repeatability:	0.5°@ 70°C 2.0°@ 150°C
Reproducibility:	2.0°@ 70°C 7.5°@ 150°C
Test Time:	1 min below 212°F 2 min above 212°F (100°C)

### Physical

Cup Type:	RT-01 Closed RT-02 Open
Cup Material:	Aluminum (316ss optional)
Dimensions:	15.0x3.4x6.3 in (38.1x8.64x16.25 cm)
Display:	LCD digital and NIST traceable mercury-in-glass thermometer
Net Weight:	10 lbs. (4.6 Kg)
Power Requirements:	115/230v, 50/60 Hz
Sample Size:	RT-01 2ml below 212°F 4ml above 212°F (100°C) RT-02 2ml
Temperature Range:	RT-01 -22°F TO 572°F (-30° TO 300°C) RT-02 Ambient to 212°F (100°C)



## Ordering Information

RT-01	Rapid Tester, closed cup, -22 to 572 degrees "F" (-30 to 300 "C") with aluminum cup & brass lid & shutter
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