



## **Automated Cleveland Flash & Fire Tester**

## **ADVANTAGES:**

- User-friendly keypad programming
- Automatic lighting of test flame
- 550 results memory capacity
- Statistical results analysis (AVE, MIN, MAX, SD)
- Alert messages for out-of-spec results
- Multiple safety features
- Special equipment for efficient asphalt testing
- Optional six-position sample changer
- Stand-alone operation or multi-instrument network under ALAN® software

FP92 5G2 & SC6

he Cleveland Flash Point FP92 5G2 automatically determines flash and fire points of volatile materials in accordance to ASTM D 92 or equivalent methods. Its automated operation, backed by leading latest technology, greatly increases laboratory productivity while also improving repeatability and reproducibility. The system automatically corrects results for barometric pressure before storing the data to permanent memory. Through its sophisticated, quality control features including traceable automatic calibrations with lock-out control, products quality following-up by data comparison to pre-programmed specifications and many others the FP92 5G2 fulfills strict ISO9000 quality system requirements.



### **APPLICATIONS:**

## **Volatility**

LUBRICANTS, RESIDUAL FUELS, BITUMINOUS MATERIAL

### **METHODS:**

ASTM D 92 ISO 2592, EN 22592, IP 36 JIS K-2265 NF EN 22592



# Designed to satisfy all your requirements



#### **Flexibility**

- Preset and programmable test methods; search, fast and pass/fail methods possible
- Easy test initiation; simply select the sample name from a pre-programmed list
- Programmable heating enables a variety of heating rate combinations
- Sample pre-heating capability with adjustable duration
- Optional device for skin removal in bitumen applications
- Upgrades at any time with addition of a 6-place automatic sample changer, which can be installed by user
- Stand-alone operation or multi-instrument network by ALAN® management software under Windows for results collection and advanced LIMS communication by user-defi ned protocol.

#### **Precision**

- Low mass, low inertia heating element for precise heating rate control and quick cooling
- Heating plate and insulating plate in strict accordance with method
- Automatic barometric pressure correction according to method
- Warning message when the result falls outside of specification
- Statistical analysis of AVE, MIN, MAX, and SD
- Probe with engraved serial number delivered with certificate

#### Quality

- 21-point probe offset correction table capabilities
- Automatic, time recorded calibrations
- Calibration frequency lock-out control
- Multi-level password-protected access

#### **Safety**

- Low voltage heating element for safe use
- Automatic suppression of gas source at end of test
- Automatic lighting of the test flame, detection of its presence during the run and re-lighting in case of extinction
- Fire protection with thermofuse
- External fire alarm connection
- Over-heating detection with automatic heating system shut-off

#### FOR ADDITIONAL INFORMATION:

AMFRICAS

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To further upgrade operation, you may add ISL's SC6 automatic six-position sample changer at any time. It allows six different samples to be tested completely unattended, drastically reducing operator time. When utilizing an optional SC6 sample changer, the operator selects the first sample cup to test and initiates operation. Remaining samples can then be programmed as the first test is running. A special menu provides all information including cup number, sample name, flash point and fire point. Following each test, the carousel rotates to extinguish the completed sample under a cover then moving the next cup to the test position. Because each place is equipped with its own heating plate, the next test begins immediately with a cold plate.

SPECIFICATIONS	
Standard Test Method	20 different methods including ASTM D 92 ISO 2592, EN 22592, IP 36, DIN/EN 22592, JIS K-2265, NF EN 22592
Customized methods	User, Fast, Pass/Fail and Search methods
Sample temperature measurement	Pt 100 glass probe as standard Or optional Pt 100 stainless steel probe Delivered with calibration certificate
Temperature range	1 to 400°C in 0.1°C (38 to 760°F)
Sample heating	Low voltage and low mass heater
Heating rate	Two different heating rates and pre-heat mode
Draft protection	Polymethacrylat shield in standard
Ignition system	Gas
Flash/fire detection	Ionization detection
Sample changer	Optional automatic 6 place carousel
Barometric correction	Automatic correction with built-in gage
Display	LCD, 1/4 VGA monochrome with screen saver
Keypad	Alphanumeric keypad with dedicated function keys
Calibration	Automatic calibration, programmable frequency, calibration ticket print out
Password security	Multi-level password protection
Data memory	550 tests, 20 sample specifications, 20 operator names and 20 test methods
Statistical analysis	Computation of AVE, MIN, MAX, and STD
Data input/output	Connection to PC or RS232 (delivered as standard)
Printer	Centronics, link (delivered as standard)
Diagnostics	Automatic diagnostic routines on functions of the analyzer
Safety	Fire protection with thermal fuse and external alarm connection
Operation conditions	15 to 35°C (60 to 95°F)
Dimensions W x D x H	FP92 5G2: 36 x 48 x 33 cm (13 x 20 x 13 in) With SC6: 69 x 48 x 33 cm (27 x 20 x 13 in)
Weight	FP92 5G2: 32 Kg (61 lbs) With SC6: 42 Kg (92 lbs)
Electrical	100–240V auto switching; 800W; 50/60 Hz In conformance with CE requirements
Due to continuing available development appointations subject to change at any time without notice	

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

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