

## SERIES APA-70X for Lube Oil Pour point tests

### AUTO SAMPLER

- Sample pre-heating
- Automatic self-cleaning
- User-friendly programming
- Configurable up to 48 samples



### ANALYZER CHARACTERISTICS

- Built-in multi-processor system
- Internal miniature cooler
- Sensitive micro-detectors
- Bench-top and extremely compact
- Self-contained system: no external coolant or PC connection required

### DISPLAY MONITOR & SOFTWARE

- 10.4" colour touch-screen input and display panel
- Digital and graphical representation of test results
- Memory storage for over 10,000 tests
- Preventative maintenance software
- Optional LIMS interface
- Optional phase behaviour monitoring and diagnostic software
- Optional temperature control software for proprietary method development

## Value Proposition

The most adopted pour point instrument in the world just got better. Built to meet stringent laboratory requirements within the lube oil industry, the innovative APA-70X lube oil system is an apparatus which offers the world's best precision, unmatched test speed for fast product release and a high-throughput autosampler that optimizes staff productivity — Delivering unprecedented value that savvy customers have come to expect.

### SUPERIOR PRECISION

- Best repeatability in the industry
- No test bias to D97 manual pour point method
- Over 15 years of proven and unmatched inter-laboratory testing
- ASTM D5949 test conformance

### WORLD'S FASTEST TEST CYCLE FOR QUICK PRODUCT RELEASE

- 27 minute average test time for -50°C samples
- 50% faster than nearest competitor
- Fast test cycle speed for quicker results

### UNPARALLELED PRODUCTIVITY

- Automatic testing allows staff the freedom to multi-task
- 48 position high-throughput autosampler
- 400% more unattended testing than our nearest competitor

### PROFITABILITY

- Accurate test results allow:
  - Maximized product yield and optimum additive usage
  - Unsurpassed speed for expedient product release
  - Laboratory profitability

### WORLD CLASS SERVICE

- Telephone and e-mail support
- Remote diagnostics
- Service contracts
- Extended warranties
- Worldwide loaner pool

## ASTM Application

### POUR POINT

Pour point is the lowest temperature at which a sample still shows movement under conditions of the test. It is a critical lube oil specification, and is often specified in diesel transactions as well. ASTM D-5949 is the test method developed based on the Phase Technology pour point analyzer. The procedure involves applying a calculated air pulse onto the sample surface at 3°C intervals (or any other user programmable interval) until no movement is detected. With its advanced optical system, Phase Technology pour point analyzers are ideal for detection of a wide range of materials. Research reports show that Phase Technology's pour point method is superior over the ASTM D-97 alternative in terms of both repeatability and reproducibility.

Pour Point Method	Repeatability @ 1° C	Repeatability @ 3° C	Reproduceability @ 1° C	Reproduceability @ 3° C
D5949	1.6 ° C	2.2 ° C	3.2 ° C	3.8 ° C
D97	Not available	2.9 ° C	Not available	6.4 ° C