



APPLICATIONS:

Volatility

GASOLINE, DIESEL, JET & OTHER
COMMERCIALLY AVAILABLE FUELS

REFINERY PROCESS STREAMS

Micro Distillation Analyzer

ADVANTAGES:

- **Highly repeatable physical distillation results in <10 minutes**
- **Fast product quality evaluation using Pass/Fail mode**
- **Standard or customized test reports**
- **Simple, one-button test initiation**
- **Compact design with small footprint**
- **Safe, robust operation**
- **Up to 5 tests per hour**
- **Locally displays results; sends data to printer, PC or LIMS network**

PMD 100

Significantly increase test productivity with ISL's PMD 100 Automatic Micro Distillation Analyzer. This innovative instrument (patent pending) provides a complete distillation run and test report in **under 10 minutes using only 10 ml of sample**. It employs leading research, the most advanced technology and highest quality design, enabling **quick, reliable** distillation characteristics under atmospheric pressure in correlation to ASTM D 86.

This compact, exceptionally user-friendly unit proves ideal for applications where standard laboratory instrumentation cannot be applied or is restricted due to insufficient response time, small sample volume availability, dimension or weight limitations, or untrained staff with limited time or exposure to laboratory equipment. **Rugged and fully independent**, the PMD 100 enables installation in locations ideal to workflow, making it an additionally **ideal tool for process quality follow-up (at-line) or mobile applications**.

METHODS:

correlation to the following methods and corresponding analogs

ASTM D 86

ISO 3405

IP 123

Distillation characteristics in minutes using only 10 ml of sample



QUICK DISTILLATION, HIGH THROUGHPUT

- Immediately start testing without concern over flask and measurement device adjustments or heater power settings
- In less than 10 minutes, view results on local display; easily save, print, and/or export data to a PC
- Perform up to 5 tests per hour, beginning a new test immediately after one has completed—no apparatus conditioning or cleaning necessary

SAFE, INTELLIGENT ANALYSIS

- Automatically recognizes sample type and applies appropriate heating method and data treatment
- Continually self-monitors for all conceivable dangers (i.e. fire, overpressure, overtemperature), immediately responding with appropriate treatment such as alarm, power cut-off, disable test, etc.; external alarm connection is available
- Multiple safety features ensure safe, CE-compliant operation
 - built-in fire detector and fire extinguishing system
 - low voltage heating system
 - protection shield
- Patented design eliminates cooling unit, receiver and volume measurement; distillate condenses into waste bottle
- Quickly validates results using flexible, user defined Pass/Fail protocols with two types of specifications (such as typical volumes and temperatures) for each sample; alarms and reports notify operator of in- and out-of-spec results

DEPENDABLE OPERATION AND SUPPORT

- Quality construction and reliable operation backed by a limited parts and service warranty
- Expert sales and service from PAC's worldwide network of factory trained authorized representatives

FOR ADDITIONAL INFORMATION:

AMERICAS:

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SPECIFICATIONS

Ordering Information		Model PMD 100 Micro Distillation Analyzer
Standard Test Method		Correlation to ASTM D 86, ISO 3405, IP 123 and analogs
Operation Principle		Physical distillation of liquid sample—the most reliable principal to determine distillation characteristics of petroleum products. Measures vapor & liquid temperatures by non-inertial, low mass thermocouples, further monitoring pressure in the distillation flask as the sample gradually distills under atmospheric pressure. Collected data is processed and converted to ASTM D 86-compliant format.
Sample Size		10 ml
Performance		Test Time <10 minutes for complete run Temperature Range 0° to 400°C (32° to 752°F) Sensitivity ±0.1°C (±0.1°F)
Operation		User Interface Graphic LCD display; solvent-proof alphanumeric keypad with dedicated function keys Calibration Automatic calibration routine with programmable frequency; printed reports Heating System Low mass self-positioning low voltage heating element (125W); fast air cooling at end of test
Measurements		Temperature Non-inertial, low mass thermocouples protected by rigid metal thermowell for reliable operation Pressure Built-in gauges: differential (in-flask pressure) & barometric Volume Percent recovered calculated against recorded pressure data in the flask during distillation run
Results Management		Documentation Evaporated results can be instantaneously reported in °C or °F; automatic barometric correction Local display according to user preference: complete method-compliant report, or limited to selected distillation points for easy process quality follow-up Print pre- or user-defined 40 or 80 column reports to external printer via parallel port; data export to external PC via RS-232 or RS-485 link Data Memory Analyzer locally retains 12 complete distillation test results Product Memory Up to 40 product names with associated specifications Specifications Memory Up to 80 customized product specifications (i.e. typical temperature versus volume, or volume versus temperature)
Physical		Ambient Conditions Operation: 10 to 30°C (50 to 86°F) Storage: -20 to 40°C (-4 to 104°F) Electrical Requirements 100–240 VAC (auto switching), 50/60 Hz, 200 watt Dimensions 250mm (W) x 605mm (D) x 330 mm (H) (10 x 24 x 13 inches) Weight 17 kg (37 pounds)

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



YOUR LOCAL REPRESENTATIVE: