



NewLab 100 Cloud Point



ASTM D2500
ASTM D5771
ASTM D5772
ASTM D5773
DIN 51597
IP 219
IP 444
IP 445
IP 446
ISO 3015

Subject

Cloud Point of petroleum products and biodiesel fuels.

Measuring Cloud Point Principle

The sample is cooled down according to the methods while the clouds appearance is observed on the silver bottom of the test jar by means of an optical sensor. The measurement is done by reflection on the silver bottom of the test jar via a fast light detector. The signal from light detector is traded by the LabLink software. The dynamic measurement is performed regardless of the sample's colour.

Measuring Cloud Point Devices

Light pulsed emission on I.R spectrum through a coaxial fiber optic.

Measuring Temperature Probe

- Platinum resistance PT100 class A
- The PT100 is touching the bottom of the test jar.

Measuring Parameters

- Temperatures: in °C
- Measuring range: +80°C ... -80°C
- Resolution: 0.06 °C
- Accuracy: ± 0.1 °C
- Repeatability / Reproducibility: as per standards methods or better

Software Features

- New LabLink software able to manage up to 6 analytical heads simultaneously (stand alone)
- User friendly interface
- All analytical parameters recorded
- Customizable analysis parameters and methods
- Customizable results report
- Printable graphs and results
- Self-identification of the typology of the analysers connected

The software includes:

Analysis Menu

- Standard method as per ASTM / IP / ISO / EN / DIN... norms of reference.
- Optional methods:
 - fast bath (to reduce the time of analysis);
 - T-sample – T-bath (Delta T constant);
 - cooling rate °C / h.

- Audible alarm and displayed messages (at the end of the analysis and in case of errors and/or malfunctions).

Diagnostic Menu

- Direct access to all analog, digital, inputs and outputs.
- Selectable value displaying: °C / Volt

Calibration Menu

- Automatic calibration of each temperature probe
- Last calibration date referred to each single probe displayed and relative data printable
- Display of calibration diagram
- Insertion of offset values
- Standard and advanced calibration modes

Data Utilities

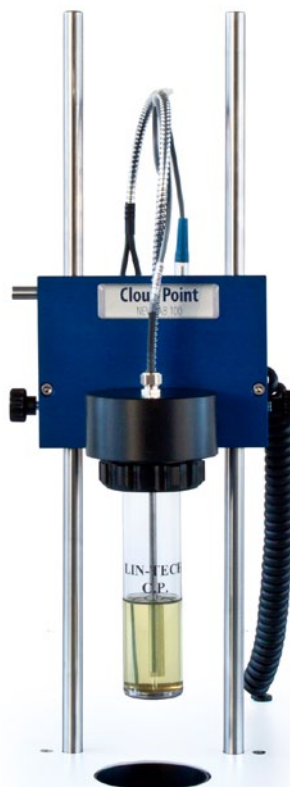
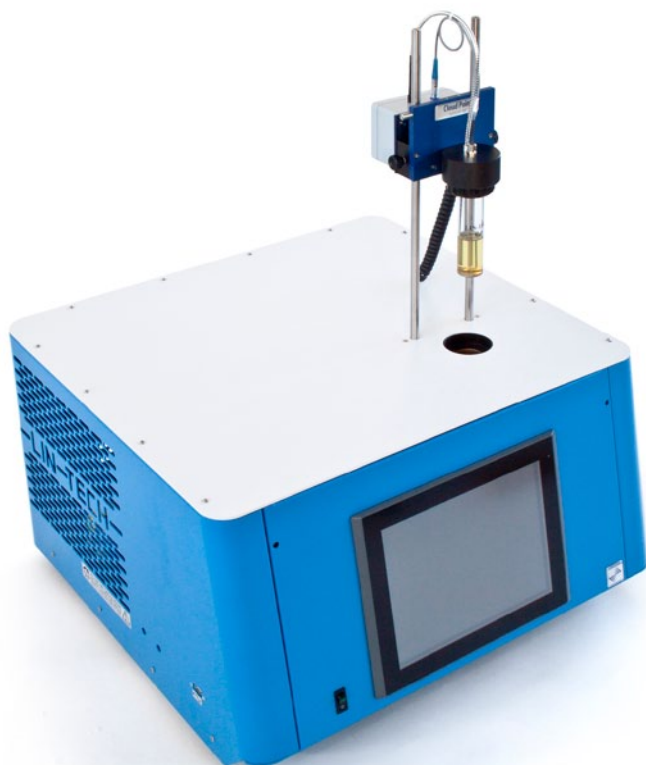
- Fields for introduction of operator and product name
- Archive viewer for files recall
- All analysis stored in Excel® compatible format
- Storage capacity for more than 60'000 analysis
- LIMS compatible

Integrated Touch Screen Panel PC

- TFT/LCD 12"
- Resolution 1024 × 768, 16.2 M colours
- 2 USB ports for connection to an external printer and/or external PC
- Storage capacity for more than 60'000 analysis



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Test Jar

- Same dimensions and volume as described by the standard test methods
- Product level mark
- Small edge on the top in order to fix the glass cell to the analytical head
- Silvered bottom with anti-scratch film protection

Cooling System

Integrated gas CFC free motor compressors:

- Single stage
(for temperatures up to -40°C / 1)
 - Double stage
(for temperatures up to -80°C / 2)
- Equipped with an automatic energy power save system. After 15 minutes from the end of the analysis the cooling system goes in stand-by mode.

Safety Devices

- Pressure controller for 1st stage motor compressor
- Pressure controller for 2nd stage motor compressor
- Thermo-switch for each cooling / heating jacket
- Motor compressors equipped with internal overload devices

Electrical Supply

- $220\text{V} \pm 15\%$ / 50 to 60 Hz
- $115\text{V} \pm 15\%$ / 60 Hz

Cord Cable

- 3 conductors flexible cable 2 m (7 feet) length with PVC sheath oil and heat resistant as per CENELEC directives

Ambient Temperature

- Max 32°C
- H.R. 80%

Spare Parts

- LAB-xxx/005-03: heater + auto adhesive + insulation
- LAB-xxx/005-04: thermo switch
- LAB-xxx/005-06: PT100 bath
- LAB-xxx/007-02: static relay
- LAB-xxx/007-04: PCB fuse 1 AT (box of 10 pcs)
- LAB-xxx/006-01: cooling fluid valve + fitting
- LAB-100/007-01: main electronic board Cloud Point
- LAB-100/008-06: fiber optic
- LAB-100/008-07: light board
- LAB-100/008-12: PT100 product w/connector
- LAB-100/008-04: test jar with silver bottom
- LAB-100/008-041: o-ring for test jar

Calibration Tools

- OilLab 80: calibration decade box – PT100 simulator
- OilLab 81: set of connectors and cables for cold range

Dimensions and weight

- 1 test pos.: w 66 × d 60 × h 80 cm, 60 kg
- 2 test pos.: w 66 × d 60 × h 80 cm, 90 kg / 100 kg
- 3 test pos.: w 100 × d 60 × h 80 cm, 130 kg
- 4 test pos.: w 134 × d 60 × h 80 cm, 160 kg
- 6 test pos.: w 130 × d 75 × h 170 cm, 280 kg