



## OilLab 580 Noack



### ASTM D5800 IP 421

#### Subject

Determination of the evaporation loss of lubricating oils (particularly engine oils). Procedure A uses the Noack evaporative tester equipment. Procedure B uses the automated non-Woods metal Noack evaporative apparatus.

#### Measuring Noack Principle

A quantity of 65 grams of sample is heated to a specific temperature and maintained for 1 hour while it is enclosed in a crucible, the crucible's cover is shaped to allow a constant vacuum of -2 mbar to remove from the crucible the evaporating portion of the sample. At the end of the test, the sample is cooled and then reweighed: the difference, reported in percentage, represent the sample's Evaporation Loss by the Noack Method.  
Method A: bath is controlled at 250°C;  
Method B: the sample is controlled at 245.2°C.

#### Measuring Temperature Probe

- Platinum resistance PT100 class A

#### Measuring Parameters

- Temperatures: in °C
- Testing range: +225°C to +275°C
- Measuring range: 0°C ... +320°C
- Resolution: 0.01 °C
- Accuracy:  $\pm 0.1$  °C
- Repeatability / Reproducibility: according ASTM D5800 or better

#### Electronic regulator for automatic control of differential pressure

- Differential pressure 20 mm H<sub>2</sub>O, accuracy 1%

#### Crucible, Crucible Cover and Heating Block

- Same dimensions and volume as ASTM D5800
- Electrically heated new designed aluminium block, no Woods metal needing

#### Heating unit

- Electrical resistance, 500 W

#### Vacuum Pump

- Equipped with high resistant Kalrez valve, inlet filter to remove product residuals
- Automatic electronic control system able to maintain the -2mB during the analysis
- Low voltage power supply

#### Integrated Touch Screen Panel PC

- TFT/LCD 8"
- 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
- Lin-Tech operating software Lab-Link running in Windows ambient
- Automatic reading of the weight suggested balance LT/B-2470/BCA500 INT- CAL

#### Software Features

- All analytical parameters recorded
- Customizable analysis parameters and methods
- Customizable results report
- Printable graphs and results

The software includes:

#### Analysis Menu

- Standard method as per ASTM / IP / ISO / EN / DIN... norms of reference
- Unknown sample
- Direct access to all analog, digital, inputs and outputs

- Audible alarm and displayed messages at the end of the analysis and in case of errors and/or malfunctions
- [Diagnostic Menu](#)
- 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

#### 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

#### Dimensions

- Length 400 mm
- Width 450 mm
- Max. height: 450 mm

#### Weight

- 22 Kg

#### Electrical Supply

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

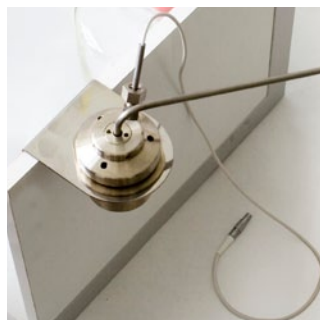
- Max 35°C
- H.R. 80%



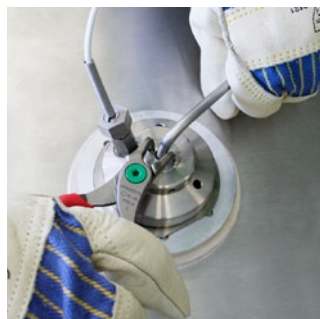
## OilLab 580 Noack



Particular attention has been paid to the integrated vacuum pump that is also protected by an inlet filter for residual recovery.



Crucible holder made in stainless steel keeps the cup assembly ready to use.



Protection gloves and hook wrench, high quality materials for safety operations.



With the pliers the nut of the crucible cover is accurately and easily fixed.



### Noack Tester ASTM D5800 Stand Alone includes:

- integrated vacuum pump with inlet filter
- evaporation crucible for procedure B
- 10 test balls
- nozzle cleaner
- crucible holder
- protection gloves
- hook wrench
- pliers

### Accessories

- LAB-580-1001: glassware acc. CEC L40-A-93, 1 complete set comprising 2 glass bottles 2 litres capacity, with the necessary rubber bungs, glass delivery tubes (internal Ø 4 mm) and silicone tubings
- LAB-580-1002: stand for glass bottles, including inclined manometer 0 to 50 mm water and Fresenius column
- LAB-580-1003: evaporation crucible
- LAB-580-1009: Noack reference oil, 1 Ltr
- LAB-580-0010: Noack software evaluation tools

### Spare parts

- LAB-580/008-12: PT100 sample
- LAB-580/11-01: silicon tubing 2 m
- LAB-580/013-02: air filter
- LAB-580/007-01: main electronic board Noack
- LAB-580-1003: evaporation crucible
- LAB-580/006-03: main electronic board
- LAB-580-0011: hook wrench
- LAB-580-0012: pliers
- LAB-580-0013: crucible holder
- LAB-580-0014: test balls (pack of 10 pcs.)
- LAB-580-0015: nozzle cleaner
- LAB-580-0016: gloves
- LAB-580/006-03: main electronic board
- LAB-580/05-23: heater
- LAB-580/08-14: PT100 bath

### Calibration Tools

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

