

AUTOMATIC LUBRICATING OIL EVAPORATION LOSS TESTER (NOACK TEST)



Automatic Lubricating Oil Evaporation Loss Tester (NOACK Test) TT-5800Z

Automatic Lubricating Oil Evaporation Loss Tester (NOACK Test) TT-5800Z is in accordance with the ASTM D5800 Standard Test Method for Evaporation Loss of Lubricating Oils by the Noack Method, Procedure B.

It utilizes the automated non-Woods metal Noack evaporative apparatus. The evaporation loss holds significant importance in engine lubrication, particularly where high temperatures are prevalent, leading to the potential evaporation of portions of the oil. This tester is designed for determining the evaporation loss of lubricating oil, especially engine oil, and lubricating base oil at 250°C.

APPLICATIONS

The primary application of the Automatic Lubricating Oil Evaporation Loss Tester TT-5800Z is to determine the **evaporation loss (volatility) of lubricating oils**, particularly engine oils and base oils, using the Noack method, in compliance with **ASTM D5800 (Procedure B)**. The test measures the percentage of oil that evaporates at a high temperature (250°C), which is a critical performance indicator for predicting oil consumption, emissions control, and overall oil stability in modern engines.

Key Industries

- **Lubricant Manufacturing:** This is a mandatory quality control test for lubricant blenders formulating engine oils. International specifications from organizations like API, ACEA, and ILSAC set strict limits on Noack volatility, making this test essential for product certification.
- **Automotive and Engine Manufacturing:** Automakers and engine manufacturers specify low volatility oils for their vehicles to ensure engine durability, reduce oil consumption, and help control emissions. They rely on the Noack test to qualify oils for factory-fill and service-fill recommendations.

- **Additive Manufacturing:** Chemical companies that produce high-performance synthetic base stocks (like PAOs) and antioxidant additives use this test to demonstrate the superior quality and low volatility of their products to lubricant manufacturers.

FEATURES

- The heating device utilizes a metal bath, ensuring both safety and environmental friendliness.
- A differential pressure gauge is incorporated to guarantee precise pressure measurements.
- Wood alloy is integrated into the bath body to enhance heat transfer efficiency.
- It comes equipped with a specialized vacuum suction system.
- Features a digital timer for accurately recording test duration.
- The evaporation crucible adheres to ASTM standards.
- Incorporates a precision pressure regulation system and an needle valve for accurate flow control.
- Includes a gas buffer bottle internally.
- Utilizes a high-power solid-state relay for heater control.
- Uses an temperature control gauge for precise temperature regulation.
- It is capable of retrieving dedicated balance data from the data processing system, with a built-in printing function.

TECHNICAL SPECIFICATIONS

Working power supply	AC (220±10%) V, 50Hz(customizable) (110V also available)
Temperature control mode	Digital display PID temperature control
Temperature control range	Normal temperature to 250 °C ± 0.1 °
Heating method	Metal bath heating
Pressure regulation	Highly precise needle valve

Suction method	Vacuum pump
Differential pressure measurement	Differential pressure measurement
Applicable test standard	ASTM D5800,procedure B



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