

AIR RELEASE VALUE TESTER



Air Release Value Tester TT-3427

Air Release Value Tester TT-3427 complies with the ASTM D3427 standard Test Method for Air Release Properties of Petroleum Oils.

Air Release Value Tester TT-3427 is utilized to assess the capacity of turbine, hydraulic, and gear oils to separate entrained air. The device measures the time it takes for the entrained air content to decrease to the relatively low value of 0.2% volume under standardized test conditions. This enables the comparison of oils' ability to separate entrained air under conditions where separation time is measurable.

The full significance of this testing method is not yet determined. However, entrained air can lead to sponginess and reduced sensitivity in controlling turbine and hydraulic systems. It's important to note that this test may not be appropriate for ranking oils in applications with short residence times and high gas contents.

APPLICATIONS

The primary application of the Full Automatic Biodiesel Oxidation Stability TT-14112A is to determine the oxidation stability of biodiesel, specifically Fatty Acid Methyl Esters (FAME), using an accelerated oxidation test.

The apparatus operates in full compliance with the EN 14112 standard to measure how resistant the biodiesel is to degradation under controlled conditions. This is a crucial quality control parameter to ensure the fuel remains stable during transportation, storage, and use.

Key Industries

- **Lubricant Manufacturing:** This is a fundamental quality control and product development test. Lubricant blenders must formulate their oils—especially turbine and hydraulic fluids—with good air release properties to meet industry and OEM specifications.

- **Power Generation:** This is a key end-user industry. The air release properties of steam and gas turbine oils are critical for the reliable operation of the turbine's hydraulic control system. Poor air release can lead to operational instability and potential trips.
- **Industrial Manufacturing:** A wide range of industries (e.g., plastics, metalworking, automotive) use hydraulic systems in their manufacturing equipment. The air release performance of the hydraulic oil is essential for ensuring the precise and reliable operation of these systems and for preventing cavitation damage to pumps.

FEATURES

- The equipment utilizes a digital temperature meter for precise temperature control.
- It features a digital timer with an alarm function for user-friendly operation.
- The apparatus incorporates a pressure regulator valve, with pressure gauge display.
- It features a sleek and attractive design.
- The equipment comes equipped with a densimeter.

TECHNICAL SPECIFICATIONS

1. Rated voltage: AC 220V $\pm$ 10% 50Hz (110V also available)
2. Power: 600W
3. Temperature: Controlled by digital display temperature controller
4. Temperature range: From room temperature to 100°C
5. Control precision: $\pm$ 0.1°C
6. Temperature sensor: Pt100 (Platinum resistor)

7. Cycle mode: Pump cycle

8. Ambient requirements: Temperature should be between 10°C and 40°C; Humidity should not exceed 85%



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