



TORONTECH

AUTOMATIC BLAINE APPARATUS FOR CEMENT FINENESS TESTING - TT-BLAINE



TT-Blaine Automatic Blaine Apparatus is a cost-effective and automated solution for accurately measuring the fineness of cement and other powdered materials. Designed in full compliance with the ASTM C204, AASHTO T153, EN-196-6, BS 4550 standards, TT-Blaine uses the air permeability method to determine the specific surface area (SSA) in cm^2/g — a critical parameter for assessing cement quality, reactivity, and performance.

Ideal for cement manufacturers, construction material labs, and academic institutions, the TT-Blaine delivers reliable results at a competitive price, making it an excellent choice for laboratories that demand both precision and affordability.

APPLICATIONS

High Performance Low Cost Automatic

The TT-Blaine combines microprocessor control with a user-friendly touch-key interface, offering full automation of the testing process — from air flow measurement to result calculation and digital data logging. This low-cost Blaine apparatus is designed for accuracy, repeatability, and ease of use, while keeping operational and investment costs low.

Why Cement Fineness Testing Matters

Fineness affects the hydration rate, early strength development, and long-term durability of cement-based materials. Measuring the specific surface area ensures consistency, quality, and performance in both research and production environments.

FEATURES

Key Features

- 1. ASTM C204, AASHTO T153, EN-196-6, BS 4550 compliant – accurate air permeability testing of cement fineness
- 2. Fully automatic operation – no manual calculations or timing required
- 3. Low-cost and budget-friendly – ideal for labs with limited resources
- 4. Digital display – shows real-time test values and specific surface area
- 5. Automatic data logging – records test results and timing automatically
- 6. Microprocessor-based control – ensures high precision and repeatability

The Blaine air permeability method calculates the specific surface area of a cement sample by measuring the resistance to airflow through a packed bed of powder. When a known volume of air passes through the sample, the flow rate — affected by particle size and porosity — reveals the surface area, giving insight into the fineness of the material.

TECHNICAL SPECIFICATIONS

Specification	Value
Voltage	220V $\pm$ 10% (110V is also available)
Timing Range	0.1 to 999.9 seconds
Timing Accuracy	< 0.2 seconds
Measurement Accuracy	$\leq$ 0.1%
Temperature Range	8°C



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