

Coal Caking Index Tester Roga Index Determination Apparatus For Metallurgical And Coke Quality Analysis

Item Number: KT-TE26



Introduction

Engineered for industrial fuel laboratories this precision caking index determination apparatus delivers accurate drum abrasion analysis digital revolution control and reliable bituminous coal coking evaluations to optimize metallurgical coke blending quality verification and rigorous academic research workflows worldwide today.

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Application	Description	Key Benefit
Metallurgical Coke Blending	Evaluation of bituminous coal bonding capacity to formulate optimal coking blends combining high-, medium-, and low-volatile feedstocks.	Reduces dependency on expensive prime coking coals while securing target cold strength and thermal stability.
Commercial Coal Trade Valuation	Standardized laboratory qualification of imported and domestic coking coal shipments during commercial acceptance testing.	Provides dispute-proof empirical data for pricing, penalty enforcement, and contract compliance verification.
Blast Furnace Feedstock Optimization	Determination of coke lump abrasion resistance derived from specific coal seam samples prior to large-scale carbonization.	Prevents blast furnace permeability loss by screening out feedstocks prone to excessive mechanical degradation.
Research & Petrology Institutions	Scientific investigation into coal thermoplasticity, maceral reactivity, and thermal rheological transformation during pyrolysis.	Delivers repeatable baseline kinetic and mechanical data for comparative clean-coal technology studies.
Coking Byproduct & Tar Prediction	Preliminary screening of coal plastic layer characteristics correlated with volatile matter release and liquid byproduct yield.	Aids in balancing chemical byproduct recovery efficiency against mechanical coke yield in commercial batteries.
Third-Party Analytical Laboratories	High-volume contract testing and certification for mining concessions, geological exploration teams, and commodity inspection firms.	Enhances lab productivity through automated digital counting, rapid reset sequences, and low-maintenance construction.

Parameter Category	Specification Attribute	Value / Technical Requirement
Equipment Model	Item Number Identifier	KT-TE26
Standard Compliance	Industrial Testing Standard	GB/T 5447-2014 Standard Test Method for Caking Index
Drum Kinetics	Rotational Speed	50 ± 0.5 r/min
Test Parameters	Default Operational Revolutions	250 revolutions
Preset Capabilities	User-Programmable Range	1 to 999 revolutions
Counting Architecture	Sensor Technology	Automatic electronic pulse identification and counter
Operator Interface	Display Technology	High-legibility Liquid Crystal Display (LCD)
Operational Modes	Reset Mechanism	Selectable manual and automatic cycle reset
Drive System	Motor Power Rating	90 W continuous duty
Electrical Requirements	Power Supply Voltage & Frequency	220 V ± 10%, 50 Hz single-phase
Target Material	Specimen Compatibility	Bituminous coal paired with standard anthracite reference
Analytical Output	Primary Calculated Parameters	Caking Index (G-index), Roga Index (RI)