Coal Abrasion Index Tester Coal Abrasiveness Determination Apparatus

Item Number: KR-TE30

Introduction

Accurately measure coal abrasiveness and wear characteristics with this standardized abrasion index tester engineered for high-precision spindle speed automatic revolution control and rugged metallurgical durability across power generation and coal quality testing laboratories worldwide.

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Application	Description	Key Benefit
Thermal Power Generation	Evaluating the abrasive severity of thermal coal blends on boiler pulverizers, roller mills, and exhauster fans.	Minimizes boiler auxiliary outages, predicts mill life, and lowers lifecycle replacement costs for grinding elements.
Coal Mining & Preparation	Classifying mined seams (lignite, bituminous, anthracite) according to empirical abrasion index ratings during reserve characterization.	Facilitates commercial coal grading, validates contract wear penalties, and guides coal blending optimization.
Boiler & Pulverizer Engineering	Benchmarking wear-resistant metallurgy, high-chromium alloy steels, and composite weld overlays against standard abrasive feeds.	Accelerates alloy selection and structural design validation for heavy industrial pulverizing machinery.
Metallurgy & Coking Plants	Determining abrasiveness of metallurgical coking blends before high-speed pneumatic injection and crushing phases.	Prevents premature erosion of pneumatic conveying pipelines, distributor valves, and blast furnace injection lances.
Third-Party Testing Laboratories	Performing certified analytical testing and commercial verification of solid mineral fuels according to national standards.	Delivers audit-ready, repeatable, and legally defensible abrasion index certificates for commercial transactions.
Combustion & Mineral Research	Investigating relationships between mineral matter distribution (quartz, pyrite, siderite) and micro-scale metallic abrasion.	Supports academic and industrial research into fuel tribology, comminution energy, and mineral hardness kinetics.

Specification Parameter	KR-TE30 Operational Specification
Model Identifier	KR-TE30
Standard Compliance	GB/T 15458-2006 (Determination of Abrasiveness Index of Coal)
Applicable Sample Types	Lignite, Bituminous Coal, Anthracite
Test Blade Dimensions	38 mm × 38 mm × 11 mm
Main Spindle Speed	1450 ± 30 r/min
Automated Working Cycle	12000 ± 20 revolutions
Drive Motor Power	2.2 kW
Operating Electrical Supply	3-Phase, 380 V, 50 Hz
Spindle Drive Transmission	Heavy-duty direct coupled / industrial dynamic belt assembly
Revolution Control System	High-precision digital cycle counter with automatic shutoff
Chamber Access	Quick-access top-loading mechanical enclosure