

Hardgrove Grindability Index Tester Coal Grindability
Determination Apparatus

Item Number: KT-TE17



Introduction

Determine the pulverizing characteristics of bituminous and anthracite coal with this advanced Hardgrove grindability index tester. Featuring an ergonomic bowl jack, exact calibrated loading, and digital microcomputer shutoff, this unit delivers unmatched reproducibility and precision for coal testing laboratories.

[Learn More](#)

Application	Description	Key Benefit
Thermal Power Generation	Evaluating incoming bituminous coal supplies to predict ball mill wear rates, calculate mill energy consumption, and optimize fuel pulverizer output.	Maximizes pulverizer throughput, prevents boiler flame instability, and reduces specific grinding power consumption across utility-scale generating units.
Metallurgical Coke & PCI Operations	Assessing pulverized coal injection (PCI) suitability and raw coking coal blends used in blast furnace ironmaking processes.	Ensures uniform coal fineness for rapid combustion in the raceway zone, reducing blast furnace coke rates and preventing tuyere blockage.
Commercial Inspection & Testing Labs	Conducting independent third-party fuel certification, custody transfer assessments, and trade dispute arbitrations for coal shipments.	Delivers fully auditable, standard-compliant test data with minimal operator dependency and maximum inter-laboratory reproducibility.
Coal Mining & Preparation Plants	Classifying mined coal seams and monitoring beneficiated washed coal products across different processing circuits.	Enables accurate grade classification, informs dynamic coal blending strategies, and commands premium market pricing through certified fuel grading.
Cement & Lime Kiln Firing	Characterizing solid fuels destined for rotary kiln calcination systems to determine pulverizer capacity requirements.	Assures uniform flame shape and stable calcining temperatures while lowering electrical energy expenditure in clinker production.

Academic Combustion Research	Investigating coal petrology, comminution kinetics, grindability variances, and mechanical energy-to-surface-area conversion ratios.	Yields high-precision empirical data under strictly regulated kinetic and pressure parameters for reproducible scholarly studies.
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Parameter	Specification (KT-TE17)
Equipment Model Number	KT-TE17
Spindle Operating Speed	20 rpm
Standard Test Cycle Limit	60 revolutions (automatic microcomputer shutoff)
Calibrated Grinding Load Force	284 N ± 2 N
Total Gear Reduction Ratio	1:72
Speed Reducer Specification	WTC40-40VI Industrial Worm Reducer
Motor Power Rating	90 W
Electrical Power Requirements	3-Phase, 380 V AC, 50 Hz
Grinding Bowl Elevating Mechanism	Built-in push-up mechanical jack structure
Controller Type	Digital LED revolution display with microcomputer counting
Safety & Interruption Controls	Emergency stop with cumulative cycle recovery on restart

Parameter	Specification (KT-TE17)
Applicable Standard	GB2565-2014 (Hardgrove Method)
Applicable Sample Types	Bituminous coal, anthracite, and related solid carbonaceous fuels