

Rapid Continuous Ash Analyzer Fast Coal Ash Content Determination Furnace

Item Number: KT-TE32



Introduction

Optimize combustible sample testing with this rapid continuous ash analyzer featuring precision motorized chain conveyance, dynamic thermal profiling to 1000°C, rapid forty-five minute preheating, and unmatched energy-efficient operation engineered for demanding high-throughput industrial and geological testing laboratories worldwide.

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Application	Description	Key Benefit
Coal Preparation & Mining	Continuous measurement of run-of-mine raw coal, clean coal, and flotation tailings to monitor washing efficiency and yield optimization.	Rapid 15–50 minute analytical turnaround enables real-time plant operational adjustments to maximize combustible recovery.
Thermal Power Generation	Daily proximate analysis of pulverized coal feedstocks and boiler blending inventory to calculate heating value and predict slagging indices.	Continuous feeding throughput prevents sample backlogs and verifies contractual fuel specifications before boiler firing.
Metallurgical Coke Quality Control	Evaluation of ash fractions in coking coals, metallurgical coke breeze, and blast furnace injection fuels to minimize slag burden.	Strict $\pm 10^{\circ}\text{C}$ thermal stability ensures repeatable results that protect steelmaking blast furnace chemistry and efficiency.
Geological Exploration	Quantitative mineralogical testing of core drillings, sedimentary formations, and carbonaceous rock samples during regional surveying.	High test repeatability and precise sample handling enable accurate characterization of low-grade and high-grade strata.
Chemical & Synthetic Fuel Plants	Proximate ash monitoring of coal gasification feedstocks, activated carbons, and solid carbonaceous waste streams.	Continuous combustion profiles capture exact residue levels without cross-contamination or incomplete hydrocarbon cracking.
Commercial Inspection & Foreign Trade	Third-party verification of export/import coal cargos, solid biomass shipments, and industrial fuels against international sales contracts.	High analytical accuracy down to 0.0002 g gravimetric standards guarantees unbiased, defensible trade inspection reporting.
Environmental Solid Waste Testing	Ash residue characterization for industrial sludge, refused-derived fuels (RDF), and incinerator residue streams.	Safe, steady thermal degradation handles high-volatile solid wastes cleanly through controlled sequential furnace progression.

Specification Parameter	Value / Operational Characteristic (Model: KT-TE32)
Product Identifier	KT-TE32
Furnace Chamber Total Length	730 mm
Constant Temperature Zone Length	≥ 150 mm (certified at standard 815°C)
Temperature Uniformity Tolerance	$\leq \pm 10^{\circ}\text{C}$ within the certified isothermal zone
Maximum Operating Temperature	1000°C
Thermal Ramp Time (Ambient to 815°C)	≤ 45 minutes
Conveyor Chain Linear Speed	15 mm/min to 70 mm/min (continuously variable)
Ashing Residence Time Range	15 minutes to 50 minutes (speed-dependent)
Sample Crucible Mass Range	0.5 ± 0.01 g
Analytical Measurement Accuracy	Accurate to 0.0002 g

Specification Parameter	Value / Operational Characteristic (Model: KT-TE32)
Rated Operating Power	4.0 kW
Rated Operating Voltage	AC 220V $\pm$ 10%, 50 Hz
Sample Conveyance Mechanism	Motor-driven heat-resistant continuous metallic link chain
Operational Heating Mode	Progressive continuous-feed thermal zone combustion