

Automatic Moisture Analyzer High Precision Microwave Infrared Moisture Determination Equipment

Item Number: KT-TE29



Introduction

Accelerate your quality control with this high performance automatic moisture analyzer. Featuring microwave, infrared, and hybrid drying modes alongside an integrated analytical balance, this system delivers rapid moisture determination, dynamic thermal compensation, and seamless data traceability for industrial testing laboratories.

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Application	Description	Key Benefit
Coal Mining and Power Generation	Rapid assessment of total moisture and analytical air-dry moisture in pulverized coal, coke, and solid fuel feedstocks.	Prevents boiler thermal inefficiency, ensures fair commercial fuel valuation, and conforms directly to solid mineral fuel standard procedures.
Petroleum and Petrochemical Processing	Quantification of trace and bulk moisture content in petroleum coke, hydrocarbon slurries, catalyst carriers, and polymer resins.	Mitigates catalyst poisoning in refining units, prevents polymer extrusion defects, and optimizes commercial bulk transport payloads.
Bulk Chemical Manufacturing	In-process and final product moisture control across inorganic salts, fine chemical powders, detergents, and industrial pigments.	Ensures consistent bulk powder flowability, eliminates product caking during storage, and maintains strict specification limits.
Food Processing and Grain Handling	Fast moisture quantification in raw grains, milled flours, animal feed concentrates, and dehydrated food products.	Prevents microbial spoilage, guarantees uniform shelf life, and ensures exact compliance with statutory food moisture thresholds.
Mining and Mineral Processing	Dewatering efficiency monitoring and moisture verification in iron ore, bauxite slurries, mineral concentrates, and flotation products.	Optimizes drying kiln fuel consumption, prevents transport vessel liquefaction risks, and ensures precise dry-weight settlement.
Environmental and Wastewater Management	Solid fraction and dry residue determination in municipal sludge, industrial filter cakes, and dewatered sedimentation waste.	Accurately calculates thermal disposal costs, verifies dewatering centrifuge performance, and streamlines environmental regulatory reporting.
Building Materials and Ceramics	Routine moisture analysis of gypsum, raw cement powder, clay slips, and ceramic powder formulations prior to kiln firing.	Minimizes structural cracking during high-temperature sintering, improves green-body density, and optimizes binder formulation efficiency.

Specification Parameter	Value / Operational Characteristic
Base Equipment Model	KT-TE29 Series
Standard Automation Model	KT-TE29
Enhanced Analytical Model	KT-TE29F
Microwave Input Power	≤ 1400 W
Microwave Output Power	≤ 900 W
Microwave Operating Frequency	2450 MHz
Infrared Heating Power	≤ 1200 W
Analytical Balance Capacity	≤ 310 g
Analytical Balance Readability	0.0001 g (0.1 mg) / 0.001 s response time

Specification Parameter	Value / Operational Characteristic
Moisture Determination Accuracy	≤ 0.4%
Sample Batch Capacity	9 samples per automated run
Heating Methods	Microwave / Optical Wave, Infrared, Synchronized Hybrid Drying
Determination Programs	Rapid Drying Mode, Constant Weight Mode (freely programmable)
Sample Detection Mechanism	Automatic presence/absence verification
Thermal Buoyancy Correction	Automatic software-driven thermal equilibrium compensation
Power Failure Protection	Non-volatile parameter storage with internal calendar clock
Sample Identification	Automatic daily non-repeating tracking code assignment
Display System	Large-format LCD screen with full process status prompting
Data Output Capabilities	Onboard thermal micro-printer; optional RS232 with dynamic PC software
Operating Power Requirements	AC 220 V ± 20 V, 50 Hz