

Coke Drum Tester Micum Drum Mechanical Strength Testing Machine

Item Number: KT-JTC



Introduction

Determine metallurgical coke mechanical strength and abrasion resistance using this precision drum tester. Engineered for standard index testing, the robust system provides automated revolution control, durable construction, and dependable data for industrial quality assurance.

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Application	Description	Key Benefit
Blast Furnace Feedstock Screening	Routine mechanical screening of incoming coke batches to determine M40 and M25 shatter indices prior to furnace charging.	Prevents blast furnace permeability loss, reduces hanging or slipping events, and stabilizes ironmaking production rates.
Coking Plant Process Control	In-line quality monitoring of coke batches exiting quench towers to evaluate coal blend formulas and coking carbonization schedules.	Allows immediate tuning of coal blending formulations and coking times to minimize raw material expenses while maintaining target physical strength.
Commercial Commodity Inspection	Third-party verification of export and import metallurgical coke quality at port terminals, rail heads, and trading hubs.	Generates undisputed, standard-compliant mechanical durability data for contractual settlements and commercial trade certifications.
Metallurgical Research & Development	Laboratory assessment of non-recovery coking, biomass briquette coking, and new binder agents under standardized abrasion stresses.	Delivers precise baseline data for academic research, carbon emissions reduction initiatives, and novel metallurgical coke development.
Foundry Coke Evaluation	Mechanical durability testing of large-size cupola foundry coke to verify resistance to crushing under deep bed static loads.	Guarantees that cupola charges retain interstitial spacing for optimal combustion air distribution and efficient iron melting temperatures.
Carbon Anode Material Verification	Mechanical impact testing of formed carbon blocks, graphite electrode stock, and prebaked anode materials for aluminum smelting.	Confirms fracture toughness and resistance to spalling under mechanical handling prior to electrolytic cell installation.

Parameter Category	Specification Item	Nominal Value / Requirement
Model Identification	Equipment Item Number	KT-JTC
Dimensional Parameters	Internal Drum Diameter	Φ1000 mm
	Internal Drum Length	1000 mm (Φ1000 mm profile)
Operational Parameters	Rotational Velocity	25 r/min
	Preset Revolutions	100 revolutions (automated stop)
	Testing Standard Compliance	GB/T 2006-2008
	Evaluation Indices	M40, M25 (shatter resistance), M10 (abrasion index)
Electrical Specifications	Motor Power Rating	1.5 kW
	Input Operating Voltage	380 V (Three-phase industrial standard)
	Electrical Enclosure	Integrated industrial control console
Mechanical Construction	Drum Material	High-durability wear-resistant structural steel
	Drive Mechanism	High-torque mechanical gear reduction drive
	Charge Access	Hinged inspection hatch with mechanical locking lugs

Parameter Category	Specification Item	Nominal Value / Requirement
	Foundation Requirements	Industrial reinforced level concrete floor pad