

Sealed Coke Drum Test Machine Metallurgical Coke Mechanical Strength Micum Tester

Item Number: KT-JTE



Introduction

Engineered for precise metallurgical coke mechanical strength determination this sealed coke drum test machine delivers reliable shatter resistance and abrasion index measurements featuring automated cycle timing robust structural steel construction and effective environmental dust containment ensuring consistent standard laboratory compliance

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Application	Description	Key Benefit
Blast Furnace Coke Quality Control	Routine tumble testing of metallurgical coke lots prior to blast furnace charging to assess lump degradation tendencies.	Prevents blast furnace burden collapse and gas permeability issues by rejecting substandard, fragile coke.
Merchant Coking Plant Operations	Verification of coking oven carbonization quality, blending strategies, and coal blend formulations against client specifications.	Ensures consistent compliance with commercial grade certifications and client contractual strength guarantees.
Port and Logistics Bulk Inspection	High-throughput mechanical strength screening of export and domestic metallurgical coke at railhead terminals and maritime bulk docks.	Rapidly validates mechanical durability and cargo degradation potential across multi-stage maritime and rail shipping.
Pyrometallurgical Research & Development	Formulation screening of novel coal-tar binder pitches, petroleum coke additions, and non-coking coal substitutions in trial ovens.	Delivers dependable baseline degradation metrics to optimize coal blending economics without sacrificing mechanical strength.
Foundry Coke Evaluation	Sizing and shatter resistance auditing of large-block foundry coke destined for cupola melting furnaces.	Maximizes structural coke support in the cupola stack, minimizing furnace pressure drops and fuel consumption spikes.

Third-Party Material Certification	Execution of accredited compliance testing for certified testing laboratories, metallurgy universities, and inspection authorities.	Delivers fully traceable mechanical test cycles compliant with GB/T 2006 standard requirements.
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Parameter	Standard Base Unit (KT-JTE)	Semi-Sealed Model (KT-JTE-A)	Eco-Friendly Fully Sealed Model (KT-JTE-B)
Regulatory Standard Compliance	GB/T 2006-2008	GB/T 2006-2008	GB/T 2006-2008
Primary Function	Mechanical strength (shatter & abrasion)	Mechanical strength (shatter & abrasion)	Mechanical strength (shatter & abrasion)
Enclosure Architecture	Open frame chassis	Semi-sealed safety hood	Fully sealed environmental containment
Airborne Dust Containment	Ambient venting	Partial baffle containment	Complete perimeter positive enclosure
Drum Internal Diameter	1000 mm	1000 mm	1000 mm
Drum Internal Length	1000 mm	1000 mm	1000 mm
Operating Rotational Velocity	25 r/min	25 r/min	25 r/min
Preset Revolutions per Test	100 revolutions	100 revolutions	100 revolutions
Standard Cycle Duration	4 min ± 10 s	4 min ± 10 s	4 min ± 10 s
Motor Drive Rating	1.5 kW / 2.2 kW	1.5 kW / 2.2 kW	2.2 kW
Nominal Operating Voltage	380 V (Three-Phase)	380 V (Three-Phase)	380 V (Three-Phase)
Lifter Flight Plate Configuration	High-strength internal drop plates	High-strength internal drop plates	High-strength internal drop plates

Parameter	Standard Base Unit (KT-JTE)	Semi-Sealed Model (KT-JTE-A)	Eco-Friendly Fully Sealed Model (KT-JTE-B)
Compatible Pre-Drum Sizing Systems	Optional mechanical grading screen	Optional mechanical grading screen	Optional mechanical grading screen
Compatible Post-Drum Sizing Systems	Optional mechanical separation screen	Optional mechanical separation screen	Optional mechanical separation screen
Manual Sieving Integration	Compatible manual screen set	Compatible manual screen set	Compatible manual screen set