

Coke Crushing And Ball Making Machine For Metallurgical Sample Preparation

Item Number: KT-ZQJ



Introduction

Engineered for metallurgical testing, this advanced coke crushing and ball making machine automates rough specimen shaping, transforming bulk lumps below 100 mm into uniform polyhedral blanks while maximizing yield and reducing testing preparation labor.

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Application	Description	Key Benefit
Metallurgical CRI / CSR Specimen Preparation	Initial mechanized sizing of metallurgical coke into polyhedral blanks for standardized ISO and ASTM reactivity testing.	Ensures repeatable sample geometries while eliminating human error and manual chisel damage.
Steel Mill Quality Control Laboratories	Daily intake inspection of blast furnace coke shipments to verify hot-strength properties and structural degradation rates.	Rapid sample processing cuts preparation time by over 60%, accelerating batch approval decisions.
Merchant Coking Plant Process Control	In-line monitoring of battery coking parameters, carbonization uniformity, and blend formulation performance.	Maximizes specimen extraction from small production core samples with negligible fines generation.
Commercial Inspection and Certification Assays	Independent analytical testing of export and import metallurgical coke consignments at shipping terminals.	Provides strict compliance with international mechanical preparation standards, eliminating testing disputes.
Coal and Carbon Research Institutes	Evaluation of pilot-scale oven carbonization blends, bio-coke composites, and non-recovery coke alternatives.	Enables precise specimen preparation from limited test-oven batches without consuming valuable research material.
Foundry Coke Structural Evaluation	Pre-shaping heavy, dense cupola foundry coke specimens for high-temperature compression and abrasion degradation tests.	Overcomes extreme coke hardness through high-torque 5.5 kW mechanical slicing without tool deflection.

Parameter	Specification (KT-ZQJ)
Product Model Number	KT-ZQJ
Processing Principle	Mechanical Cutting and Precision Grinding
Maximum Feed Grain Size	< 100 mm
Discharge Grain Size	≥ 23 mm
Target Output Geometry	Regular Square Polyhedron (Pre-Spherical Blank)
Specimen Recovery Rate	High-Yield Mechanized Output
System Workflow Role	Stage 1 Primary Shaping Machine (in 3-Machine Integrated Ball Making System)

Parameter	Specification (KT-ZQJ)
Rated Motor Power	5.5 kW
Power Supply Requirements	AC 380V ± 10% / 50 Hz, Three-Phase
Motor Enclosure Rating	Industrial IP54 Dust and Splash Resistant
Overload Protection	Integrated Thermal-Magnetic Breaker and Phase Monitor

Parameter	Specification (KT-ZQJ)
Structural Framework	Heavy-Duty Reinforced Structural Steel Plate
Cutting Tool Composition	Abrasive-Resistant Hardened Alloy Tooling