

Small Hammer Crusher Fine Grinding Mill Laboratory Sample Preparation Rotary Hammer Crusher Machine

Item Number: KT-CF



Introduction

High performance small hammer crusher designed for medium and fine grinding of coal limestone minerals and glass features alloy tool steel blades variable belt feeding and automated fixed sample division to ensure reliable sample preparation for laboratory testing.

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Application	Description	Key Benefit
Coal & Coke Sample Preparation	Fine reduction of run-of-mine coal and metallurgical coke prior to moisture, ash, and volatile matter analysis.	Delivers uniform sub-3 mm sample fractions without sample degradation or moisture loss.
Mining & Geological Exploration	Crushing of mineral ores, including limestone, pyrite, and phosphate rock for assaying.	Processes materials with compressive strength up to 100 MPa with minimal cross-contamination.
Industrial Glass & Ceramic Recycling	Controlled size reduction of raw cullet, glass containers, and refractory ceramic waste.	Produces consistent granular output without excessive micro-fines or over-grinding.
Thermal Power Station Quality Control	Rapid size reduction of incoming coal fuel stock at boiler intake sampling stations.	Integrated belt feeding and sample splitting ensure automated, representative sample extraction.
Aggregate & Construction Testing	Primary and secondary crushing of quarried rock, gangue, and concrete test cores.	Durable alloy tool steel hammers resist severe abrasion from hard abrasive aggregates.
Environmental & Slag Analysis	Preparation of industrial slag, incineration ash, and solid waste materials for leach testing.	Closed material path prevents dust loss and maintains strict sample mass balance integrity.

Parameter	KT-CF400	KT-CF500	KT-CF600
Rotor Dimensions (mm)	400 × 400	500 × 500	600 × 600
Maximum Feed Granularity (mm)	100	160	200
Discharge Granularity (mm)	1 – 5	3 – 15	5 – 20
Production Capacity (t/h)	0.5 – 3	1.5 – 8	3 – 15
Motor Power (kW)	4.5	7.5	18.5
Max Material Compressive Strength	≤ 100 MPa	≤ 100 MPa	≤ 100 MPa
Material Feed Clearance Rule	Feed size must be 10–60 mm smaller than feed inlet dimensions	Feed size must be 10–60 mm smaller than feed inlet dimensions	Feed size must be 10–60 mm smaller than feed inlet dimensions

Parameter Specification	KT-CF600-AUTO
System Configuration	Integrated Belt Conveyor + Crusher + Waste Conveyor + Fixed Sample Divider
Rotor Specification	Ø600 × 600 mm

Parameter Specification	KT-CF600-AUTO
Conveying Belt Width	500 mm
Belt Conveying Speed	0.3 - 0.5 m/s
Maximum Feed Granularity	< 150 mm
Discharge Granularity	< 3 mm
Fixed Mechanical Divider Ratio	1/16
Overall System Reduction Ratio	1/64
System Production Capacity	2500 kg/h
Total System Power	18 kW
Overall External Dimensions (L × W × H)	5780 × 2700 × 2800 mm
Total Equipment Mass	2010 kg