

Industrial Laboratory Jaw Crusher For Medium And Fine Raw Material Sample Preparation Crushing

Item Number: PS07



Introduction

Engineered for high-efficiency medium and fine raw material crushing, this heavy-duty laboratory jaw crusher processes feed sizes up to 220 mm with an adjustable discharge under 80 mm, delivering 5 to 16 T/h throughput for demanding industrial sample preparation workflows.

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Application	Description	Key Benefit
Coal & Coke Quality Verification	Crushing run-of-mine coal, coal gangue, and carbonized coke samples down to manageable sizes for proximate analysis and calorific value testing.	Minimizes structural sample degradation while delivering high-throughput processing across soft to medium-hard carbonaceous materials.
Mining & Pyrite Processing	Medium and secondary crushing of mineral ores, pyrite, and gangue materials prior to laboratory flotation, gravity separation, or chemical leaching.	High crushing ratio and robust manganese wear plates easily handle abrasive sulfides without excessive equipment wear.
Cement & Limestone Sample Preparation	Size reduction of extracted quarry limestone, clinker, and calcined minerals ahead of XRF chemical analysis and burnability testing.	Adjustable output under 80 mm creates homogeneous raw feeds that optimize secondary pulverizer efficiency and throughput.
Metallurgical & Slag Analysis	Breaking down smelting slag, fluxes, raw limestone aggregates, and refractories for compositional auditing and process control.	Reliable processing of dense raw feedstocks up to 100 MPa compressive strength without mechanical stalling or frame distortion.
Aggregate & Concrete Recycling Testing	Crushing construction aggregates, concrete cores, rubble, and building materials to assess compressive performance and recycled blend viability.	Large 250 × 400 mm feed throat accepts large, irregularly shaped fragments directly, reducing manual pre-breaking labor.

High-Purity Material Size Reduction	Primary crushing of specialty industrial glass, quartz, ceramics, and technical minerals using customized contamination-free jaw plates.	Availability of tungsten carbide and ceramic jaw options ensures ultra-pure sample preparation without metallic iron contamination.
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Specification Parameter	PS07 Standard Value	Measurement / Engineering Unit
Base Equipment Item Number	PS07	Identifiable Product Item
Feed Inlet Opening (W × L)	250 × 400	mm
Maximum Allowable Feed Size	< 220	mm
Discharge Particle Size Range	< 80 (Continuously Adjustable)	mm
Crushing Throughput Capacity	5 – 16	Metric Tons / Hour (T/h)
Maximum Material Compressive Strength	≤ 100	MPa
Crushing Kinematics Mechanism	Dynamic Toggle Squeeze Compression	Standard Kinematic Type
Standard Jaw Plate Material	High Manganese Steel (Mn13 / High Mn Alloy)	Standard Delivery Configuration
Optional Wear Plate Material Variants	Wear-Resistant Alloy, Alloy Tool Steel, Technical Ceramic, Tungsten Carbide	Custom / Application-Specific Alloys
Electric Drive Motor Power	15	kW
Operational Line Voltage	380	V (Three-Phase)

Specification Parameter	PS07 Standard Value	Measurement / Engineering Unit
Primary Application Scope	Medium Crushing, Fine Crushing, Sample Prep	Laboratory & Pilot Operations