

Environmental Laboratory Jaw Crusher For Medium And Fine Sample Material Sizing

Item Number: PS05



Introduction

Engineered for demanding laboratory sample preparation, this environmental laboratory jaw crusher delivers high-efficiency medium and fine crushing for coal, coke, ores, and minerals with integrated dust extraction capabilities, customizable alloy jaw plates, and precise adjustable discharge gap settings.

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Application	Description	Key Benefit
Coal & Energy Testing	Medium and fine crushing of run-of-mine coal, washed coal, petcoke, and coal gangue for calorific and proximate analysis.	Uniform particle size reduction without loss of volatile moisture or dust contamination.
Metallurgical Mining	Processing metallic ores such as pyrite, iron ore, copper ore, and sinter materials prior to pulverizing.	High crushing force accommodates tough materials while customizable alloy jaws prevent iron or manganese cross-contamination.
Geology & Mineral Exploration	Comminution of drill core samples, limestone, quartz, and igneous rock specimens for mineralogical testing.	Precise size reduction down to tight tolerance limits for fast downstream pulverization.
Cement & Building Materials	Crushing raw limestone, clinker, gypsum, and aggregate samples for chemical composition and strength testing.	Robust mechanics ensure continuous throughput of abrasive raw materials with minimal wear.
Refractory & Ceramics	Pre-grinding hard refractory bricks, alumina, silicon carbide, and raw ceramic mixes.	Extremely hard tool steel and alloy jaw options withstand severe abrasion from ceramic materials.
Environmental & Waste Management	Sizing incineration slag, industrial solid waste, and recycled concrete matrices for toxicity leaching procedures.	Enclosed dust extraction prevents hazardous dust dispersion into the operator environment.

Specification Parameter	PS05-1H	PS05-2H	PS05-3H	PS05-4H	PS05-150x250H
Feed Opening Size (mm)	125 × 100	100 × 60	150 × 125	150 × 200	150 × 250
Maximum Feed Particle Size (mm)	< 80	< 50	< 100	< 110	< 125
Adjustable Discharge Size (mm)	< 15	< 12	< 20	< 30	< 40
Production Capacity (T/h)	0.2 – 1.0	0.1 – 0.5	0.3 – 1.5	0.5 – 2.0	1.5 – 4.0
Crushing Mechanism	Curved Squeeze	Curved Squeeze	Curved Squeeze	Curved Squeeze	Curved Squeeze
Recommended Feed Size Differential	10 – 60 mm below throat size	10 – 60 mm below throat size	10 – 60 mm below throat size	10 – 60 mm below throat size	10 – 60 mm below throat size

Feature	Configuration Options & Operational Guidelines
Jaw Plate Metallurgy Options	- White Cast Iron (High hardness, economical for general geology) - High-Manganese Steel (Work-hardening alloy for high-impact crushing) - Wear-Resistant Alloy (Balanced toughness and extreme abrasion resistance) - Alloy Tool Steel (Maximum purity protection and minimal metallic wear residue)
Environmental Dust Control	Dual-mode connectivity: Direct coupling to plant main exhaust duct or connection to standalone secondary extraction system

Feature	Configuration Options & Operational Guidelines
Crushing Mode	Continuous curved extrusion batch / semi-continuous feed
Applicable Target Materials	Coal, gangue, coke, limestone, pyrite, metallic ores, slag, aggregates, ceramics