

Laboratory Cement Clinker Test Ball Mill Small Cement Batch Milling System

Item Number: PSSM



Introduction

This laboratory cement clinker test ball mill delivers consistent fine pulverization for physical and chemical analysis, featuring a 5 kg batch capacity, robust 1.5 kW gear-reduced drive, dust-free felt ring sealing, and integrated automated timing control relays for industrial labs.

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Application	Description	Key Benefit
Cement Clinker Grindability & Strength Testing	Pulverizes raw factory clinker into fine powder to measure physical compressive/flexural strength and setting times.	Guarantees reproducible milling parameters matching standard laboratory testing procedures.
Chemical Composition Quality Control	Grinds clinker and raw meal samples down to fine mesh powder required for XRF, XRD, and wet chemical analysis.	Eliminates sample loss and dust contamination, ensuring accurate chemical element reporting.
Building Materials R&D	Processes experimental additives, gypsum mixtures, and alternative cementitious binders under controlled time frames.	Delivers scalable, consistent particle sizes to evaluate new formulation performance.
Mineral & Ore Sample Preparation	Crushes and fine-grinds geological samples, limestone, slag, and industrial minerals for laboratory assays.	High-torque impact system easily processes abrasive minerals up to 7 mm feed size.
Refractory & Ceramic Raw Material Milling	Grinds refractory grog, oxides, and ceramic bodies into fine powders for specimen pressing and sintering trials.	Flexible grinding media charge enables customized grinding actions for hard ceramic materials.

Specification Parameter	Value / Metric
Model Identifier	PSSM Series
Mill Drum Dimensions	Φ500 mm × 500 mm
Cylinder Rotational Speed	48 r/min
Maximum Grinding Media Load	100 kg
Single Batch Feed Capacity	5 kg
Maximum Input Particle Size	< 7 mm
Output Powder Fineness	80 - 150 mesh
Standard Processing Time	10 - 30 minutes
Operating Voltage	380V AC, 50Hz (3-Phase)
Motor Power Rating	1.5 kW
Base Frame Mounting Holes	6 × Φ28 mm foundation bolt holes

Specification Parameter	Value / Metric
Grinding Media Breakdown (Total 100 kg)	Forged Steel Balls (60 kg Total): • Φ40 mm: 43 pcs • Φ50 mm: 37 pcs • Φ60 mm: 24 pcs • Φ70 mm: 9 pcs
	Steel Cylpebs (40 kg Total): • Φ25 mm × 35 mm
Dust Seal Type	Mechanical felt ring shaft seal
Control Box Features	Digital time relay, thermal overload protection, inching push-button, system status lamps