

sealed alloy hammer cutter crushing and sample reduction

Sealed alloy hammer cutter crushing and sample reduction machine is a kind of professional equipment specially designed for crushing high hardness mineral raw materials and carrying out the reduction operation, which is widely used in coal, electric power, iron and steel metallurgy, geology and building materials and other industries.

Sealed Alloy Hammer Knife Crusher

The sealed alloy hammer knife crusher is engineered to meet strict national and industry standards such as GB474 “Coal Sample Preparation Methods” and GB/T18666 “Commodity Coal Quality Sampling and Acceptance Methods”. It guarantees precision in sample preparation while providing environmental protection and operator safety.

Features

1. **Fully sealed design:** Prevents dust leakage, protects operators' health, and reduces environmental pollution, meeting modern environmental standards.
2. **Wear-resistant crushing chamber:** Made from high-quality seamless steel pipe, durable and resistant to sample contamination and overheating.
3. **Alloy hammer knife:** Constructed from high-strength, wear-resistant alloy, easily crushes hard materials and minimizes maintenance costs.



4. **Quick replacement of screen plate:** Inserted design allows fast changes for different particle sizes, improving operational flexibility.
5. **High-efficiency crushing:** Efficiently crushes high-hardness materials such as coke, ferroalloys, and sintered pellet ores, ensuring uniform and undistorted samples.
6. **Full cross-section crushing:** Ensures complete material crushing and eliminates dead-end sample storage and chamber blockage.
7. **Low noise & vibration:** Stable, quiet operation enhances working comfort and environment.
8. **Safety protection design:** Protective facilities for all transmission components ensure operator safety and comply with safe production requirements.

Advantages

1. **High-efficiency sample making:** Rapidly completes crushing and mixing, boosting sample processing efficiency.
2. **Pollution-free operation:** Fully sealed design isolates dust and pollution, supporting environmental compliance.
3. **Adaptable:** Handles a range of high-hardness materials for varied sample preparation needs.

4. **Low maintenance costs:** High-strength, wear-resistant materials maintain stable performance under intense use, reducing maintenance frequency and costs.
5. **Easy operation:** Quick screen plate replacement and intuitive interface simplify usage and maintenance.

Working Principle

The crusher uses high-speed rotation of alloy hammer knives to crush materials entering the chamber. Repeated impacts efficiently break down the sample to the required size, which is then graded via the screen plate. The fully sealed structure prevents dust leakage, while the durable hammer knife and screen plate enhance efficiency and longevity.

Application Areas

1. **Coal industry:** Crushing and sampling for coal quality testing and analysis.
2. **Iron & steel metallurgy:** Processing coke, ferroalloy, and other hard materials for metallurgical sample preparation.
3. **Geology & building materials:** Crushing mineral samples such as ore and limestone.
4. **Third-party testing organizations:** Standardized, precise sample preparation for minerals, alloys, and metallurgical materials.
5. **Electric power industry:** Coal sample testing in power plants for accurate coal quality analysis.

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Model	DPS60	DPS120
Feed size	≤60mm	≤120mm
Output size	less than 2.8mm, 10mm(adjustable)	less than 5mm, 16mm(adjustable)
Reduction ratio	1/8 to 1/2(adjustable)	
Production rate	400 to 1000kg per hour	800 to 1600kg per hour
motor power	4kw+0.4kw	7.5kw+0.4kw
Power supply	three phase 380Vac	
Weight	350kg	550kg
Dimensions	1000x830x1350mm	1300x910x1650mm
note	Imported SKH-9 alloy steel hammer blade, special process, can crush manganese silicon, manganese-iron alloy and other high hardness iron alloy.	