

sealed hammer knife crushing and reducing machine for coke

Sealed hammer knife crushing and reducing machine combines hammer knife crushing technology and reduction technology with fully sealed design, featuring high efficiency, environmental protection and precision.

Sealed Hammer Knife Crushing and Reducing Machine

The Sealed Hammer Knife Crushing and Reducing Machine is fully compliant with national standards such as GB/T18249 “Test Methods for Checking Deviations in Sampling and Sample Preparation of Ferroalloys”, GB/T4010 “Taking and Preparation of Specimens for Chemical Analysis of Ferroalloys”, and GB474 “Methods for Preparation of Coal Samples”. It efficiently processes high hardness materials including coal, coke, ferroalloy, and sintered pellet ore, providing reliable sample mixing, reduction, and accurate data for quality control and analysis in mining, metallurgy, coal, electric power, and related industries.



Main Features

1. Fully sealed design: Prevents dust pollution, meets environmental requirements, and is ideal for workplaces with strict standards.
2. High wear-resistant materials: Seamless steel pipe crushing chamber is durable and impact-resistant, preventing contamination or overheating of samples.

3. Alloy hammer knife: High-strength, wear-resistant alloy hammer knives ensure stable, efficient crushing of high hardness materials.
4. Convenient screen plate replacement: Inserted screen plate design allows rapid, tool-free replacement for flexible operation and improved work efficiency.
5. Adaptable to high hardness materials: Effectively crushes coal, coke, ferroalloys, sintered pellet ores, and more.
6. Full cross-section crushing: Ensures no dead angles or clogging, maintaining uniformity and integrity of crushing results.
7. Efficient reduction: Classic reduction type with stainless steel reducer smoothly handles high moisture samples without blockage or sample loss.
8. Efficient sample preparation: Rapidly completes crushing, mixing, and reduction while maintaining moisture, ideal for moisture-sensitive sample processing.
9. Easy to operate and maintain: User-friendly design simplifies operation, cleaning, and maintenance, reducing manual workload and costs.
10. Low noise and high safety: Operates quietly with comprehensive protective facilities on transmission components for operator safety.

Working Principle

1. **Hammer Knife Crushing:** Materials enter the crushing chamber and are rapidly broken by the high-speed impact of alloy hammer knives, efficiently processing hard materials like ferroalloy and coke.
2. **Reduction Processing:** Crushed samples are divided by a stainless steel reduction device, reliably handling high moisture content without sample clogging.
3. **Sealing Design:** Sealed working chamber and transmission parts reduce dust leakage and preserve sample moisture for accurate analysis.

Application Areas

1. Coal industry: Crushing and shrinking coal samples for composition analysis, calorific value, and other quality control indexes.
2. Electric power industry: Sample processing for coal used in power plants, supporting efficient and stable power generation.
3. Iron and steel metallurgy: Accurate composition analysis of raw materials and high hardness substances in metallurgical processes.
4. Mineral resources: Used in exploration and quality analysis of ores, ferroalloys, coke, and other mineral samples.
5. Third-party testing: Reliable sample preparation for laboratories and testing organizations, ensuring fairness and accuracy.

Advantages

1. High efficiency: Quickly completes crushing, mixing, and reduction for high-volume sample processing.
2. Environmentally friendly: Sealed design reduces dust pollution, perfect for eco-conscious workplaces.
3. High durability: Alloy hammer blades and wear-resistant steel chamber enable long-term, high-intensity operation.
4. Wide adaptability: Suitable for conventional and high hardness, high density materials.
5. Easy to operate: Intuitive design simplifies use, cleaning, and maintenance, minimizing manual intervention.
6. High safety: Fully protected transmission parts ensure operator safety to meet strict industry standards.

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Model	DPS80	DPS150
Feed size	≤80mm	≤150mm
Output size	less than 3mm, less than 6mm(adjustable)	less than 6mm, less than 13mm(adjustable)
Reduction ratio	1/8 to 1/2(adjustable)	
Production rate	1200 to 1800kg per hour	1800 to 3000kg per hour

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Model	DPS80	DPS150
motor power	4kw+0.4kw	7.5kw+0.4kw
Power supply	three phase 380Vac	
Weight	350kg	550kg
Dimensions	1000x830x1350mm	1300x910x1650mm
Note	Alloy coated hammer blade, can crush iron ore, coke, gangue	