integrated sample preparation equipment for coke and ore

Coke Ore integrated sample preparation equipment is a high-efficiency sample preparation equipment integrating multi-stage crushing and multi-stage reduction, which is specially designed to handle fast and accurate sample preparation of coke, iron ore and other solid bulk materials.

Coke Ore Integrated Sample Preparation Equipment

Coke ore integrated sample preparation equipment can realize continuous automatic operation, from material feeding, crushing, mixing and homogenizing to shrinking and sampling, one-stop completion of the sample preparation task, to meet a number of relevant national coal mine and ore sampling standards of strict requirements.

Main Features

1. Intelligent operating system: Equipped with PLC intelligent touch screen, it realizes automatic control of the whole process, easy operation and flexible parameter adjustment.
2. Environmental protection design: the whole machine adopts fully sealed structure design, effectively preventing dust leakage, in line with environmental protection and safe production standards.

3. Efficient and even feeding: adopting belt conveying system to ensure smooth and even material conveying, eliminating the phenomenon of material blocking and segregation.
4. Double crushing mechanism: primary jaw crushing, suitable for primary crushing of large materials. secondary roll crushing, to ensure fine crushing and uniform particle size.
5. High-precision reduction: the reduction device adopts tandem configuration, the reduction ratio can be flexibly adjusted according to the demand, to ensure the representativeness and accuracy of the samples.
6. Corrosion-resistant material: the condenser and key components are made of stainless steel, adapting to high humidity materials, and excellent anti-clogging performance.
7. Automatic cleaning and iron removal: multiple automatic cleaning device to prevent sample residue, iron removal device to ensure the purity of the sample.
8. Independent drive motor: each functional module is driven by an independent motor, which is convenient for maintenance and troubleshooting.
9. Convenient maintenance design: multiple observation and maintenance window design, convenient for daily cleaning and equipment maintenance.
10. Low noise and stable operation: mechanical structure optimization to ensure that the equipment runs smoothly and the noise is controlled at a low level.

Advantages

1. Sample accuracy: multi-stage crushing combined with multi-stage reduction, to ensure that the sample size is uniform and highly representative, to meet the needs of analysis.
2. Automation and high efficiency: reduce human error, improve sample processing speed, suitable for large quantities of continuous production.
3. Environmental protection and safety: sealed structure and dust removal measures to effectively protect the health of operators, in line with modern environmental regulations.
4. Easy maintenance: modular design, easy to quickly replace worn parts and cleaning, reduce maintenance costs.
5. Strong adaptability: can handle a variety of high humidity or easy to caking ore and coke samples, a wide range of applications.

Working Principle

The joint sample making machine evenly feeds the bulk material into the equipment through the belt conveying system, and firstly enters the primary jaw crusher for coarse crushing, which quickly crushes the large material into small pieces suitable for further processing. Subsequently, the material enters the secondary roller crusher, which utilizes the toothed groove structure between the rollers to crush the material finely, ensuring uniform and fine particle size. The crushed material is mixed evenly through the sample mixing device, and then enters the multi-stage reducer tandem system, which accurately divides the sample into analytical sample, storage and checking sample and moisture sample according to the set reduction ratio. The whole process is automatically controlled, each link is independently driven and equipped with automatic cleaning and iron removal equipment, ensuring pure samples, high sample making efficiency and continuous stability.

Application Fields

1. Coal industry: automatic preparation and analysis of coal samples, providing accurate samples for coal quality monitoring and inspection.
2. Iron and steel metallurgy: sample preparation of iron ore, coke and alloy materials, assisting the quality control of iron and steel production.
3. Geology and building materials: rapid sampling and sample preparation for bulk materials of ores and building materials to support geological exploration and building materials testing.
4. Third-party testing organizations: provide standardized sample preparation solutions for various testing laboratories.

5. Power industry: representative preparation of coal combustion samples to ensure the accuracy of combustion efficiency and environmental emissions testing.

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Model	**EP5000A**	**EP5000AQ**
Feed size	≤100mm	≤100mm
First output size	less than 10 to 20mm(adjustable)	
Second output size	less than 1 to 3mm(adjustable)	
First reduction ratio	1/8 to 1/2(adjustable)	
Second reduction ratio	1/2	
Total reduction ratio	1/16 to 1/4	
Production rate	2000 to 3000kg per hour	
Total power	9.05kw	9.42kw
Weight	1300kg	1400kg

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Model	**EP5000A**	**EP5000AQ**
Dimensions	3800x1200x2050mm	3800x2400x2050mm
Jaw plate material	high manganese steel	
Roller material	45 steel special treatment	
Sample disposal conveyor	no	yes