

600000 t/a GGBS Production Line



Equipment Type: GRMS46.41 Slag Vertical Roller Mill

Power Consumption of System: 38 kWh/t

Standard Production Capacity: 105 t/h

Annual Output: 600,000 tons GGBFS

Effective Diameter of Millstone: 4600 mm

The feed water: max.15%H₂O

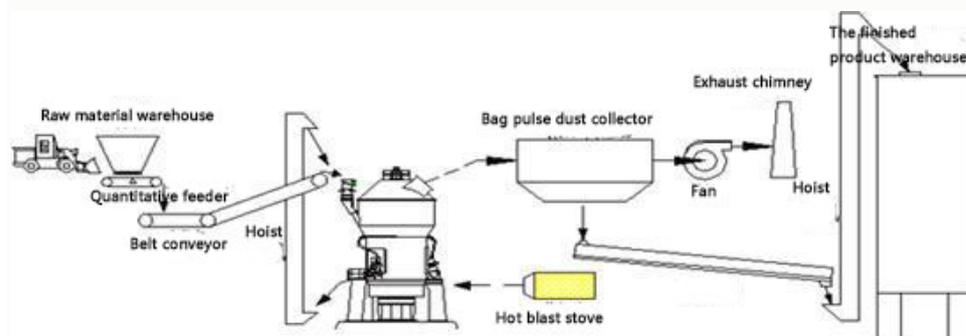
Number of roller: 4

Specific surface: 4200~4500cm²/g

Introduction:

The annual output of 600,000 tons of [GGBFS production line](#), which signed with the Great Wall Machinery, .This project is beneficial to ecological environment protection. It not only gains good economic benefit, but also gets good social benefit.

Working principle:



The original slag by grab machine into the feeding bin, measurement by conveyor belt into the spiral feeding device for feeding [GRMS46.41 Slag Vertical Roller Mill](#), the material with grinding disc to rotate under the action of centrifugal force moving from the center to the edge in grinding process, after compaction, degassing, grinding process, the material is entered from the air ring hot air with, and instant drying, smaller particles were brought to the powder selecting machine for sorting, coarse powder return disc grinding. Qualified fine powder was brought into the bag type dust collector, was finished after the collection of gas powder separation. Finished product collection after delivery into the finished bulk library, exhaust fan exhaust silencing by post. Large granular material part difficult to grind spit slag mouth into the external circulation system through the wind ring, by removing iron, again by the hoist feed mill. Hot air drying and mill needs ventilation is provided by the hot blast furnace, the insufficient part supplemented by cold air valve from the atmosphere.

Configuration

1. Magnetic Separators

Magnetic separators create strong magnetic attractions with ferrous materials. It is commonly used to remove unwanted iron contaminants from cement mixtures. Separating iron from mixtures avoids the risk of long, big iron parts tearing open the conveyor belt, ensures the proper functioning of the crusher and grinder, and it improves the grade of raw



material. In addition, recovering ferrous metals from raw materials also comes with financial benefits.

Our permanent magnet separator for pipeline is an automatic high-performing magnetic separation device. It is often utilized in cement, electricity, ceramics, bricks and tiles, metallurgy, chemical engineering, food, glass, and steel industries, as a separator of choice when it comes to purifying materials and ensuring the operational safety of the downstream equipment on the GGBS production line.

2. Dust Collectors

Air-borne powder enters the rotary separator at bottom, where guide vanes force the air to change from an upward flow to a tangential flow. The separator rotor tends to rotate along with the air flow without causing any drag to the stream. Hence, a centrifugal zone is formed between the guide vanes and separator vanes, where powder is separated from air.

During separation, larger particles are thrown outward by rotary force of the separator rotor, falling to the bottom of separator due to the force of gravity. After exiting the centrifugal zone, these oversize particles are collected in a conical hopper and returned to the roller mill for further grinding. Finer particles are brought through the center of the separator chamber and out the top, where they are collected by a dust collector.

3. Central Control System

The central control system is a critical part of the GGBS production line. It is comprised of the Distributed Control System, and the Closed-Circuit Television which contains 6 monitor circuits.

In a distributed control system, or DCS for short, there are a number of computers, each controlling a separate circuit. Information can be collected together from each computer and obtained by the central controller, which facilitates centralized management and control. Compared with the computer controlled multilevel system, DCS has the advantages of optimized, flexible layout,

low cost, high reliability, maximum accessibility, easy maintenance, great flexibility, good compatibility, and comprehensive functionalities.

Features:



1. A good return on investment, can recover the cost-effective

With the application widely of mineral powder, the domestic market demands increase rapidly in this project. Investment powder production line with considerable economic benefit and high return on investment, usually 1-3 years can recover the cost.

2. High efficiency, energy saving, environmentally friendly.

GRMS series slag vertical mill can reduce power consumption effectively in the process of production. Meanwhile, because it is a negative pressure operation, vertical roller mill produces almost no dust during operation, low noise and pollution than traditional tube mill.

3. Mature general contrasting scheme.

Great -Wall has the domestic first-class technical team, and combined with domestic main vertical expert for technology. Great-Wall Machinery can design detail general scheme according to our customer's actual situation, and can provide "turnkey service" from civil engineering to production operation.

4. The customers case witness all over the country.

Great-Wall Machinery [GGBS production line](#) has been recognized by our key customers, the domestic production operation of the production line has been up to more than 30, customers all over the world.