

Industrial Waste Slag Solution

China first-rate integrated supplier of grinding system

MADE IN CHAENG, USED IN THE WORLD

Situation Analysis

In recent years, Southeast Asian countries accelerate the adjustment of industrial structure, vigorously promote the industrialization process, but the infrastructure construction is still in the ascendancy, especially in Indonesia is flourishing demand for steel. This year is expected to more than 15 million tons, up nearly 10% on the previous year, and by 2025 the number will reach 26 million tons.



Growing metallurgical production inevitably produce large amounts of industrial waste slag. Currently Indonesia mineral slag, nickel slag and iron slag, processing is still in its infancy, almost no processing, some of them used for reclamation or fill the crater. Without any disposing, they will cause the raise dust, pollute the air and soil, and silt the river. The toxic chemicals in them will even harm human and animals' health.



On 10th November, 2015, Chairman of Indonesia Growth Steel Group, came to Xinxiang Great Wall machinery co., LTD., had made final inspection and signed about 300,000 t/y of nickel slag grinding line project, which will be put into operation in the second half of 2016. This cooperation indicates Xinxiang Great Wall mineral slag, steel slag and nickel slag EPC project go abroad to the world again.



It is said that the utilization rate of steel slag for some developed countries reach 60%. For example, French and Canada use steel slag as ballast of railway. Japan and Germany use steel slag as cement raw material. Some countries of Western Europe extract the calcium, silicon, manganese and microelement in steel slag use as fertilizer, and all of those make steel slag re-apply in life, the problems of difficult stacking and environmental pollution are solved completely.

GGBS Application

With people's knowing about the GGBS (Ground Granulated Blast Furnace Slag) performance and economic value, now many cement and concrete enterprises start to produce and use GGBS. The activity GGBS used in cement production can replace large amount clinker, used in concrete can replace large amount cement and improve the concrete performance, it can lower the production cost, save energy and reduce emission.



Mineral Slag

Mineral slag is the waste slag discharged from blast furnace during pig iron smelting. It could be concrete admixture after grinding process.



Nickel Slag

Nickel slag is the solid waste generated by smelting nickel iron alloy. The nickel iron alloy is the main raw material for stainless steel.



Steel Slag

Steel slag is the waste residue in the process of steel making, including converter slag and electric furnace slag, approximately takes 15-20 percent of crude steel capacity.



Manganese Slag

Manganese slag is the waste of smelting Manganese. It could be the material of silicon manganese alloy after milling process.

Solution

The Advantages of Mineral Slag, Steel Slag and Nickel Sag Grinding Lines



1. Considerable Investment Returns, 1-2years Payback Period
2. High Productivity and Energy Efficiency
3. Mature EPC Solution
4. Numerous Domestic and Foreign Customers Case
5. Off-Gas Emission and Noise Level in Line with National Standards
6. Low Electricity Usage
7. The advantage of the fastest delivery

1. To produce 1 ton of cement clinker direct coal consumption is 114kg. If there are 50 million tons of waste slag which can be used for the production of slag cement every year, it can save 5.7 million tons standard coal every year.
2. The production of one ton slag powder consumes less 60 kw/h electric power than the production of one ton cement, if production quantity is up to 50 million tons of slag each year, it may save 3 billion kw/h electric power which is equal to the consumption of 1,240,000 tons of standard coal.
3. In the field of carbon dioxide emission, it will emit 1.095 tons of carbon dioxide to produce each 1 ton cement clinker. If there are 50 million tons waste slag can be used for the production of mineral slag cement and steel slag cement every year, the carbon dioxide emission will decrease total 54,750,000 tons every year.

Main Equipment

Vertical roller mill is typically designed to grinding industrial waste slag to powder. The integrated vertical milling system, pioneered by Xinxiang Great Wall Machinery that has successfully built more than 100 mineral slag, steel slag and nickel slag grinding lines at home and abroad, can deal with all the slag mentioned above. GRM has been tested and verified by the practices, and also benefits millions of money for enterprises.

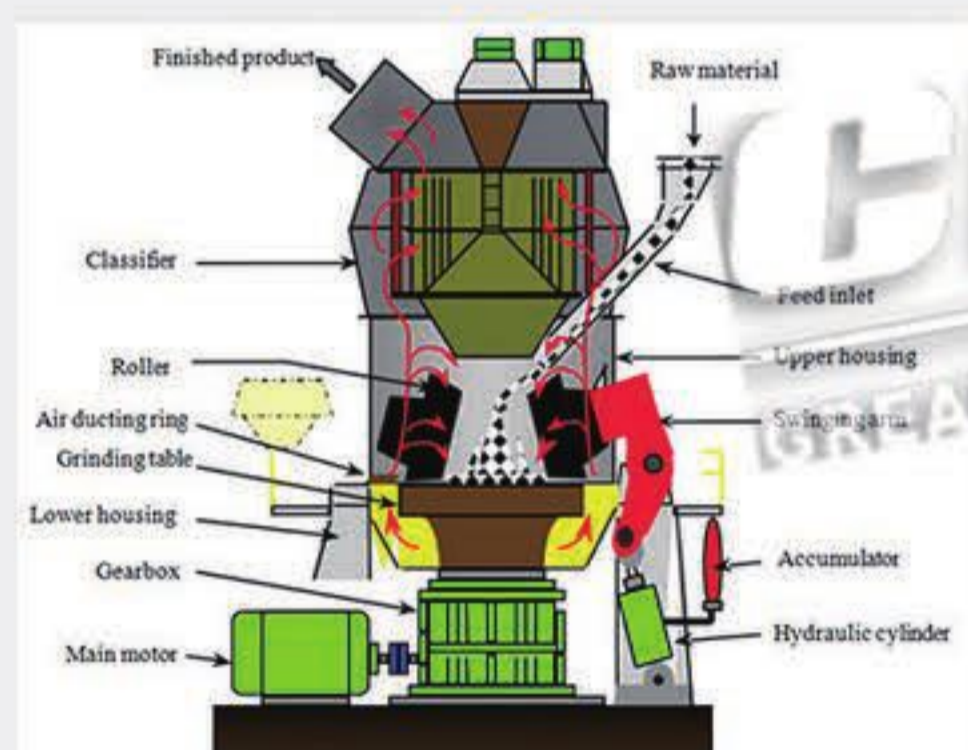
What is GRM

After almost a decade cooperation with experts on vertical mill manufacturing and scientific research institutes both in home and abroad, Xinxiang Great Wall Machinery Co., Ltd R & D and produce the GRM series vertical mills, at present, can produce the supporting raw material vertical mill, coal vertical mill, and cement vertical mill that can cater to 300-3000 t/d cement production line, and the series slag vertical mills with annual production capacity of 200,000 tons, 300,000, 450,000tons, 600,000 tons, 900,000 tons and 1,200,000 tons.



Structure Characteristics

1. The compound separator improved power selection efficiency.
2. Has automatic function of roller up lifting and down falling and can realize idling startup.
3. Adopt the sealing of jointing arc board, simple and reliable in structure with good sealing effect.
4. Resorting to the roller turning equipment can conveniently turn the roller out of the mill for overhauling.
5. The operation pressure is low in hydraulic pressure system, decreasing the oil leaking failure and vibration of mill, which is conducive to operation and management.
6. Roller bearing adopts the concentrated cycle lubricating of thin oil, guaranteeing the running of bearing under the conditions of low temperature and pure grease and effectively prolonging the longevity of bearing.



Advantage of GRM

1. High efficiency and low power consumption in powder milling
2. The consumption of material is low in unit product
3. Low noise in material powder milling, operate with negative pressure, low dust pollution
4. Simple in technology flow, meanwhile finish the function of material powder milling, drying and powder selection
5. With easy operation system, saving labor cost.
6. Low area occupying, compact allocation, light weight in system equipment and low investment in civil construction



About us



Xinxiang Great Wall Machinery Corporation, located at National Sustainable Development Experiment Area, Mengzhuang Town, Huixian City, Henan Province, China, was initially built in 1958 and restructured into limited liability Company from township collective enterprise in 2002.

Covering an area of 330,000 m² and having more than 1,100 employees, the company has a total asset of CNY 500 million and has passed ISO9001:2008 quality management system authentication and is a main specialized supplier for manufacturing large scale kiln mill. Possessing the experience of equipment manufacturing for more than half a century, the Company has formed the perfect operation and management system in design and development, product manufacturing, market promotion, equipment installation and after sales service.

Since the first ball mill produced in 1968, the company has produced more than 2600 sets of mills and rotary kilns in various specifications, and the products are sold to each provinces of China, and exported to America, Russia, Japan, Brazil, India, South Korea, Vietnam, Kenya, Iran and others, enjoys high market reputation.

Contact

Demands

Telephone

Country

*** Message**
Please enter your demand such as raw material type, capacity, feeding material size, final product fineness.

[Send Inquiry](#)

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*** E-mail**

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