GGBS production line

Application: Cement Plant, Clinker Grinding Unit, Steel Mill

Annual Output: 200,000-1,000,000 tons

Power Consumption: 35-45 kWh/t

Blaine Fineness: 4200-4500 cm²/g

Introduction:

GGBS production line is used widely in slag production industry. Great Wall machinery is a professional supplier of slag powder production line, we can provide "turnkey" service from civil engineering to debugging and capacity and standard reaching to customers, let customers put into production of mineral powder with saving worry, saving effort and high-efficiency.

Development of GGBS Production in China

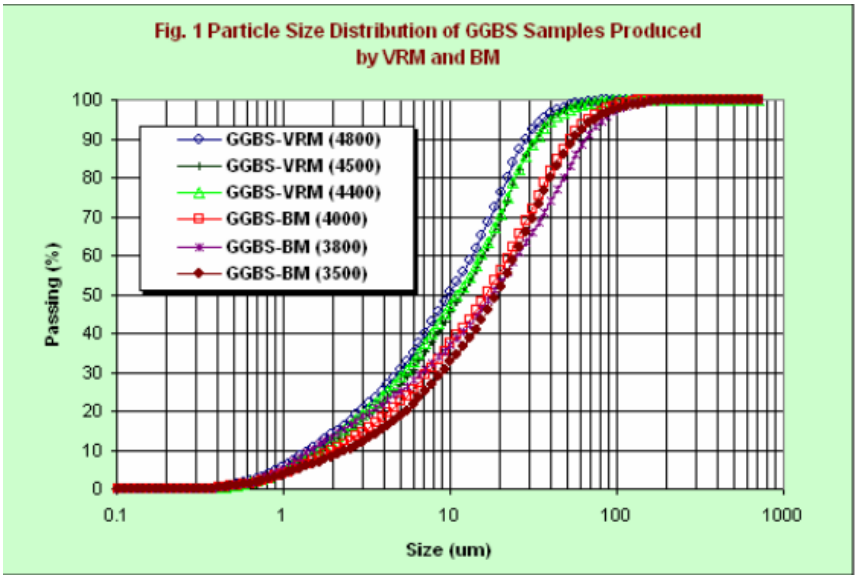
GGBS with blaine ranging 4200-4500 cm2 /g, complying with GB/T 18046 S95 and produced ideally with the state of the art equipment -Vertical Roller Mill (VRM). Compared with GGBS produced by ball mills (BM), which is at typical blaine of 3800-4000cm2 /g, VRM-produced GGBS is very much superior in terms of fineness, production efficiency, cost-effectiveness, product reactivity and its applications. Regardless of the chemical composition, significant differences between VRM GGBS and BM GGBS are with blaine fineness and particle size distribution

Table 1. Particle Size Distribution of GGBS Samples Produced by VRM and BM

GGBS Samples	GGBS-VRM 4800	GGBS-VRM 4500	GGBS-VRM 4400	GGBS-BM 4000	GGBS-BM 3800	GGBS-BM 3500
Blaine (cm^2/g)	4800	4500	4400	4000	3800	3500
D_{50} (μm)	10	11	11	17	19	20
D_{75} (μm)	20	21	22	34	44	37
D_{90} (μm)	29	30	34	52	67	57
D_{100} (μm)	88	74	105	148	176	209

GGBS Production has witnessed a rapid growing rate in slag grinding in China and production of quality GGBS has been seen literally across the country. since the mid-1990s, credit being given to the eco-friendly economic development policy adopted by the central government for the steel industry and the increased awareness

and recognition of the benefits on the use of quality GGBS not only by cement manufacturers and ready-mixed concrete players, but also by real estate developers, architects and designers and the public. With the establishment of the national standard GB/T 18046 announced in year 2000, market demand for quality GGBS has been given a big boost.



Remarks:

1. Continuous expansion of existing slag grinding plants is foreseen in China in the next at least 5 years, in order to maximize the utilization of its huge raw slag resource for producing high quality and value-added product of GGBS.

2. China has used its increased availability of GGBS mainly as clinker substitution in cement production and supplementary cementations material in concrete production. At present, benefits from cost reduction are the direct and key driving force for the use of GGBS.

3. GGBS production quality's with VRM has been experiencing an accelerated growing rate since 1997 in China. China slag grinding industry is now becoming a standalone industry sector independent from cement industry.

4. Due to the lack of unified national standards and technical guidelines for use of GGBS in durable concrete structures very low amount or 5%-8% of the total GGBS output is estimated to be used for concrete production especially due to requirement of durability in 2006 and 2007.

5. Misconception of GGBS being a low grade replacement material used for cost-saving by cement or concrete suppliers is a major barrier in GGBS being acknowledged and used for durability purpose in China. It slows down the change in perception of its key value from cost-saving to durability in China. Education to all concerned is the only answer to this unfortunate situation.

Features

1. A good return on investment, can recover the cost effective.
2. High efficiency, energy saving, environmentally friendly.
3. Mature general contrasting scheme.
4. The customer cases witness all over the country.

Configuration:

Output (t/a)	Model of Vertical Roller Mill	Capacity (t/h)	Mill Power Consumption (kWh/t)	Grinding System Power Consumption (kWh/t)	Coal Consumption (kg/t)
200,000	GRMS26.21	30	32		
300,000	GRMS33.31	50	30	42	18
450,000	GRMS40.41	70	30		18
600,000	GRMS46.41	105	28.5	37	18
1,000,000	GRMS53.41	160	26.5	35	17