

Vertical Roller Mill

Vertical roller mill ----- vertical roller mill is the newest grinding machine of **vertical roller mill** professional manufacturer-[SBM](#), which is designed specially to solve the problems of low capacity and high consumption of traditional industry mills. With a decade of years' research of mills, our vertical roller mill is designed and manufactured based on advanced design idea, and integrates the advanced international technology and years of mill-producing experience. LM series vertical roller mill adopts reliable structure and reasonable process flow; it is ideal equipment that integrated with drying, milling, classifier, and elevator. Especially, this vertical roller mill can fully meet the requirement of clients in the high production of powder and its main technical and economy indicator reaches the international level

Vertical roller mill Work Principle

The motor drives the grinding table through decelerator. The materials fall down the center of grinding table from feed opening. At the same time, hot air comes into the mill from the air inlet. Due to the centrifugal force, materials move to the edge of the grinding table. The materials are pulverized by the roller when by pass of the groove on the grinding table. The crushed materials are brought up by vane high-speed airstream, the larger particles fall down to the grinding table for regrinding. When the materials in the airstream pass the separator on the top of the mill, the coarse powder fall down the grinding table for regrinding under the function of rotation rotor. The fine powder comes out with the airstream, and is gathered by the dust catcher. The materials content with moisture will be dried when they meet the hot airstream. Through adjusting the temperature of the hot airstream, **vertical roller mill** can meet different material's requirement, and also through adjusting separator, it can reach proper fineness of materials.

Vertical roller mill Application and Benefits



Vertical roller mill Application

LM series vertical roller mill can be widely used in cement making, power, metallurgy, chemical and nonmetalliferous ore industries. This series vertical grinding mill used to grind lumpy, granular and powdery materials to the required size.

Vertical roller mill Main Features and Benefits

1. LM series **vertical roller mill** can crush, dry, grinding, classifying, so the system is simple, and occupation area is about 50% of ball mill system. In addition, it can be installed outside, so LM vertical roller mill will reduce a large number of investment costs.
2. Roller of this series vertical roller mill compacted materials directly onto the grinding disc, so power consumption is low.
3. As the hot air inside contacts directly with the material, drying ability is higher, and it saves energy. By regulating the air temperature, this series vertical grinding mill can meet requirements with different humidity.
4. LM series vertical roller mill is equipped with automatic control systems, so remote control makes it easy to operate.
5. When the material stays in the mill for a short time, vertical roller mill is easy to detect and control the product particle size and chemical composition, to reduce duplication of milling, stable product quality.
6. In addition to the above advantages, our vertical roller mill also has the following advantages: maintenance convenience, environmental protection and so on.

Raw coal Hardgrove grindability index (HGI)	>55	>55	>55	>55	>55	>55	
Main motor power (KW)	185	250	315	400	500	560	
Overall dimension	L mm	3500	4200	4700	8500	10200	11700
	W mm	3400	3900	4500	5600	6700	7700
	H mm	5800	7100	8300	8800	10600	12200
Weight (t)	46	75	94	100	122	157	

Name	Parameter	Unit	Specification			
			MTW110	MTW138	MTW175	
Main Unit Motor	Model		Y280M-6	Y315M1-6	Y355M1-6	
	Power	Kw	55	90	160	
	Speed	Rpm	980	990	990	
Motor of Classifier	Model		YCT200-4A(YCT200-4B)	YCT200-4B(YCT225-4A)	YCT225-4A(YCT225-4B)	
	Power	Kw	5.5(7.5)	7.5(11)	11(15)	
	Speed	Rpm	125~1250	125~1250	125~1250	
Motor of Blower	Model		Y250M-4	Y280M-4	Y315L1-4	
	Power	Kw	55	90	160	
	Speed	Rpm	1480	1480	1490	
Optional Equipment	Elevator	Model	TH250	TH250	TH315	
		Motor	Y100L2-4	Y100L2-4	Y112M-4	
		Power	Kw	3	3	4
		Speed	Rpm	1420	1420	1420
	Jaw Crusher	Model	PE250×400	PE250×400	PE250×750	
		Motor	Y180L-6	Y180L-6	Y200L2-6	
		Power	kw	15	15	22
	Feeder	Speed	Rpm	970	970	970
		Model	GZ2F	GZ3F	GZ4F	
		Power	w	150	200	450