

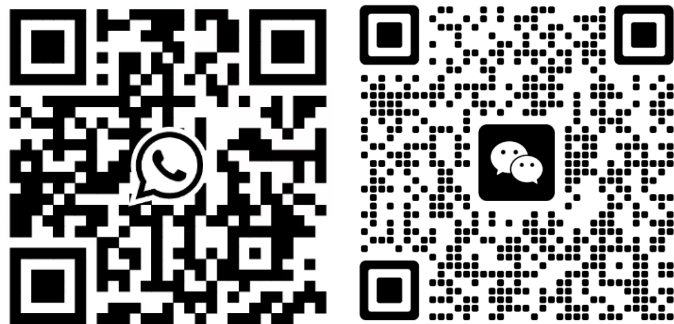


WhatsApp: +86 13524175811

Website: www.mrcrushermill.com

Email: susana@shmmachinery.com

No. 9875, Hunan Road, Nanhui Industrial Park,
Huinan Town, Pudong New Area, Shanghai



LM Vertical Mill

SHANGHAI MOUNTAIN RIVER MACHINERY CO.,LTD

CRUSH THE STONES, CONSTRUCT THE WORLD

LM Vertical Mill

Introduction

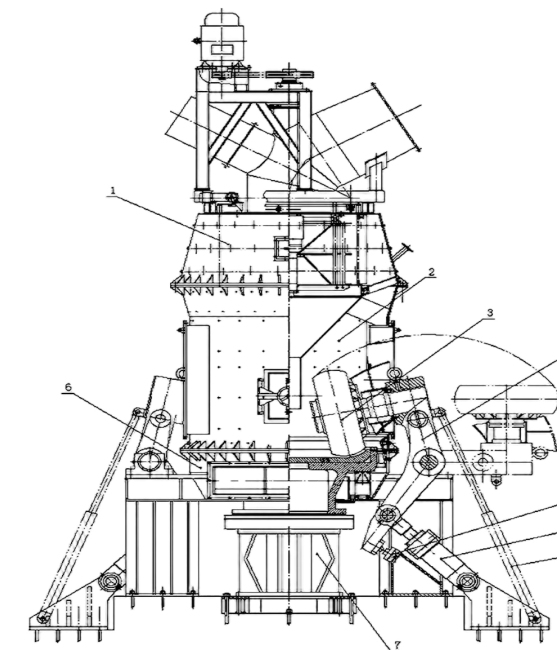
The LM series vertical mill integrates grinding, powder selection, and drying functions. It grinds material (0–15 mm) on a rotating grinding disc using pressure rollers, achieving a fineness of 325–2000 mesh. Its main technological advancements include effective contact between the rollers, the grinding disc, and the material, as well as the precision of the classification system. It is suitable for grinding ultrafine powders in industries such as metallurgy, power generation, chemicals, refractories, and, in particular, non-metallic minerals.

Application

LM vertical mills can be used to produce materials that are ground and crushed, including: calcite, limestone, pyrophyllite, barite, fluorite, glaze, inclusions, wollastonite, kaolin, vermiculite, mica, feldspar, brucite, spores, potassium salt slag, garnet, quartz, ilmenite, magnesium oxide, magnesium hydroxide, dolomite, and other materials.



Main Structure



1. Classifier
2. Intermediate housing
3. Grinding roller assembly
4. Transmission arm
5. Limiting device
6. Lower housing
7. Transmission device
8. Hydraulic system
9. Auxiliary oil cylinder

Working Principle

The motor drives the grinding disc via a speed reducer. The material falls from the feed port to the center of the disc, while hot air enters the mill through the air inlet. Centrifugal force propels the material towards the edge of the disc. As it passes through the annular grooves of the disc, it is crushed by the rollers. The crushed material is lifted by the high-speed airflow from the air ring at the edge of the disc, allowing large particles to fall directly onto it for regrinding. As the material passes through the classifier in the airflow, the rotating rotor forces the coarse powder onto the disc for regrinding. The fine, qualified powder exits the mill along with the airflow and is collected in the dust collection device, becoming the final product. The wet material dries upon contact with the hot air, reaching the desired moisture content. The airflow is recycled, and during this process, a small amount of excess air, along with lighter impurities in the finished product, is collected by a branching vacuum cleaner in the system for low-quality processing, resulting in a highly scientific and advanced process.

Technical Advantages

(1) Low Operating Cost

This machine offers high grinding efficiency and low energy consumption, reducing consumption by 40% to 50% compared to other grinding equipment such as ball mills and Raymond mills. Furthermore, it features low wear, and the roller sleeves and linings are made of special materials for a long service life, minimizing metal contamination in the product and reducing operating costs. It can be equipped with an external circulation system to further reduce energy consumption and improve product accuracy.

(2) Easy and Reliable Operation

Equipped with an automatic control system for remote operation, it is easy to operate. A device that prevents direct contact between the roller sleeves and the grinding disc lining avoids harmful vibrations.

(3) Easy Maintenance

The roller sleeves and linings can be quickly replaced by tilting the maintenance cylinder arm.

(4) Stable Product Quality

The material residence time in the mill is short, facilitating monitoring and control of particle size and chemical composition of the product. This machine is equipped with a high-precision sorter that sorts products from 325 to 2000 mesh, providing high sorting accuracy, precise cutting sizes, and consistent product quality.

Customer Site



Technical Parameters

LM Series Vertical Grinding Mill Specifications and Technical Parameters (Limestone, Heavy Calcium Carbonate)

Model	Capacity (t/h)	Feeding size (mm)	Moisture in Raw Material (%)	Output Size	Final Product Moisture (%)	Motor (kW)
LM800	6-8	00-10	<10	325 mesh > 97%	<1	110-132
LM1100	8-12	00-10	<10	325 mesh > 97%	<1	110-200
LM1300	12-18	00-10	<10	325 mesh > 97%	<1	220-315
LM1500	16-25	0-20	<10	325 mesh > 97%	<1	380
LM1700	25-30	0-20	<10	325 mesh > 97%	<1	450
LM1900	28-40	0-20	<10	325 mesh > 97%	<1	560
LM2200	35-48	0-20	<10	325 mesh > 97%	<1	710
LM2400	40-50	0-20	<10	325 mesh > 97%	<1	800

Note: The above data is for reference only and the specific parameters may vary depending on the properties of the material.

LM Series Vertical Grinding Mill Specifications and Technical Parameters (Heavy Calcium Carbonate, Talc, Gypsum, and Other Non-Mineral Ultrafine Powders)

Model	Capacity (t/h)	Feeding size (mm)	Moisture in Raw Material (%)	Output Size	Final Product Moisture (%)	Motor (kW)
LM800	2-4	00-10	<10	(0-10 μm)99.99%	<1	132
LM1100	4-10	00-10	<10	(0-10 μm)99.99%	<1	200
LM1300	8-15	00-10	<10	(0-10 μm)99.99%	<1	315
LM1500	10-25	0-20	<10	(0-10 μm)99.99%	<1	380
LM1700	15-30	0-20	<10	(0-10 μm)99.99%	<1	450
M1900X	18-40	0-20	<10	(0-10 μm)99.99%	<1	560
LM2200	20-45	0-20	<10	(0-10 μm)99.99%	<1	710
LM2400	25-50	0-20	<10	(0-10 μm)99.99%	<1	800

Note: The above data is for reference only and the specific parameters may vary depending on the properties of the material.