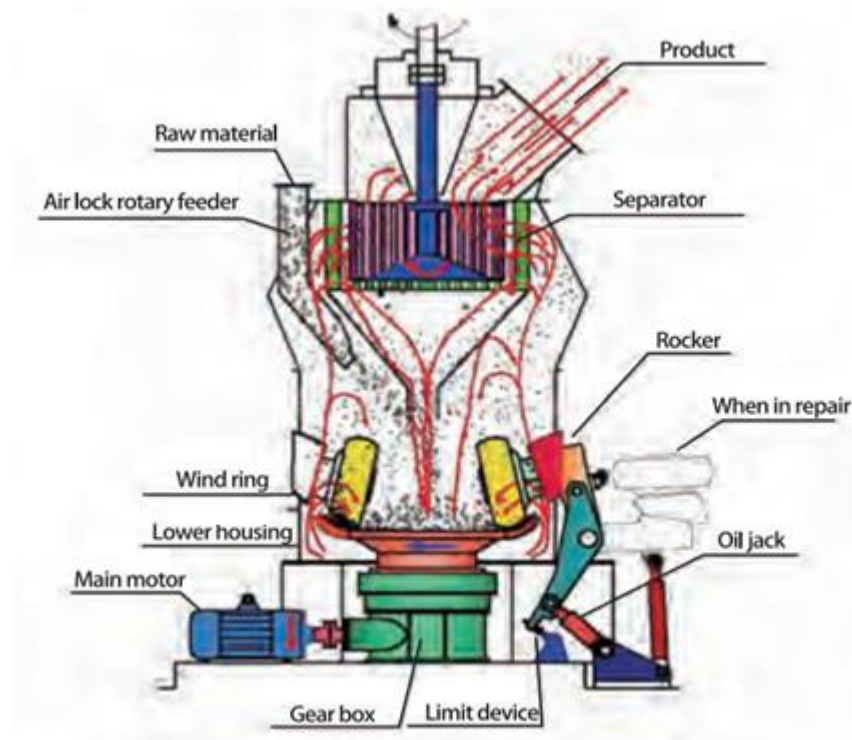

Vertical Roller Mill Working Principle

We can supply two models of vertical roller mill: [LM series vertical roller mill](#) and [LUM series ultrafine vertical mill](#). LUM series ultrafine vertical mill based on LM vertical roller mill integrates the function of pulverization, classification and conveyance into one machine.

LM Series Vertical Roller Mill Working Principle

The mill roller is driven by the electrical motor through an electrical motor and the material will be fed to the center of the disk from the feeding port via an air-locking feeder and meanwhile the hot-blast air will be blown into the mill through the air inlet.

Along with the rotation of the mill disk, the materials will move to the edge of the disk under the action of centrifugal force and grinded and crushed by a grinding roller when they pass through the circular groove on the disk. The crushed materials will be blown up by the vane at a high speed at the edge and the large-sized particles will fall onto the disk to be re-pulverized.

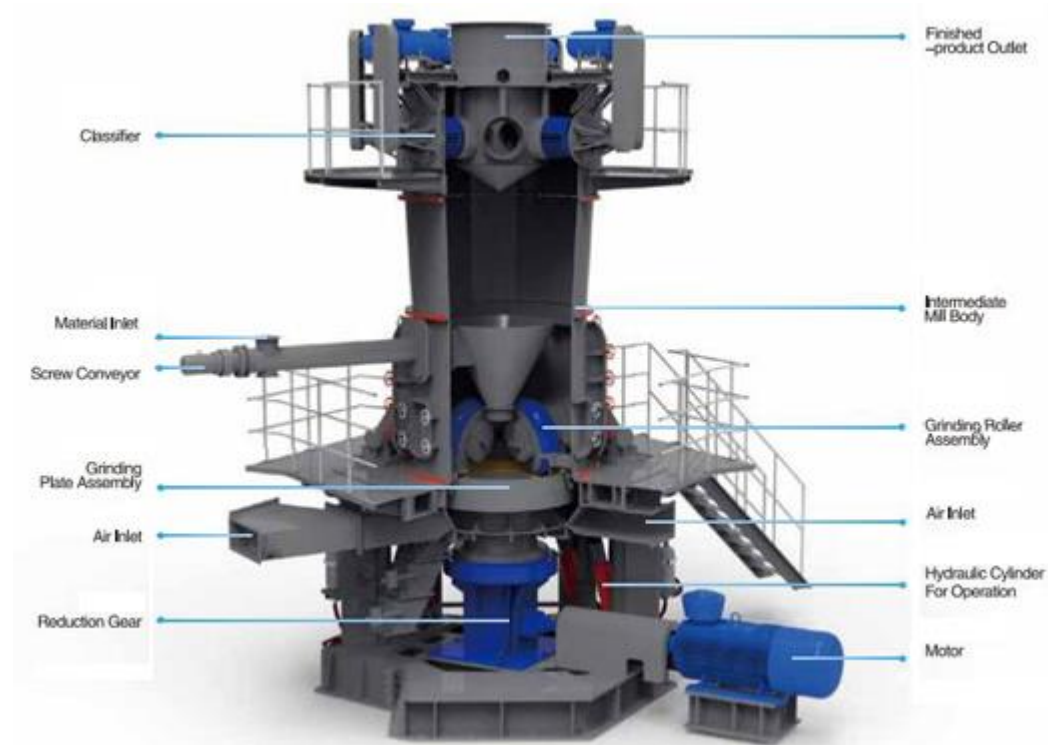


The qualified fine particles will be grinded out along with the airflow and the finished products will be collected by a dust collecting device. The materials which contain moisture will be dried when they are contacting with the hot airflow.

The product can meet the requirements on the materials in different humidity by regulating the hot-blast temperatures as to obtain the moisture and the degree of thickness required by different products can be achieved by regulating.

LUM Series Ultrafine Vertical Mill Working Principle

The grinding plate is rotated by the main motor via the reduction gear. Meanwhile, air enters the mill interior via the air inlet. The screw conveyor is responsible for conveying materials. Materials then fall onto the center of the grinding plate in rotation.



Due to the centrifugal force, the materials evenly move from the center of the grinding plate towards its fringe. While passing across the track in the grinding plate, large blocks of materials are crushed and ground directly by the grinding roller. The fine particles form the material bed, owing to squeezing, where the inter-particle crushing takes place.

The crushed materials continue to move towards the fringe of the grinding plate until they are taken away by strong air flow at the air ring.

While the materials along with the air flow pass through the separator located above the grinding plate, the coarse particles return to the grinding plate for re-pulverization due to the action of the rotor blade; the fine particles along with the air flow leave the mill interior and are collected and discharged as finished powder product by the powder collector.