# ZENITH LM Vertical Roller Mill features and technical data

**ZENITH** is one of the biggest manufacturers in aggregate processing machinery for the sand & gravel, quarry, mining, construction and recycling industries. Headquarter of ZENITH is located in Shanghai, China and now we have two manufacturing bases as our strong support. The equipment includes crusher, mobile crusher, conveyor, screening machine, sand washing machine, track mounted mobile crusher, crushing equipment, **mill equipment**, complete aggregate crushing equipment, beneficiation equipment, jaw crusher, cone crusher, impact crusher, complete quarry equipment, and so on. We will provide the right equipment according to the customer's requirements, and help customers to choose the location of the production line, equipment installation, training of workers, as well as on-site help and after-sales service.

## LM Vertical Roller Mill Features

**1. Low running costs**

It adopts the technology that vertical roller grind material directly on the disc, with low energy consumption; for the roller is not contact with the disc directly in the work, and the roller and liner are made by quality materials, it is of less wear and long life

**2. Simple and reliable operation**

Its automatic control system can reach remote control, which is easy to operate; there is the device to prevent roller sleeve contact with disc liner directly, and avoid the destructive impact and severe vibration; we can turn the rotating arm by repairing fuel tank, replace the roller and liner are more convenient, which can reduce the downtime

**3. Energy conservation and environmental protection**

It features small vibration, low noise, and sealing device as a whole, and the system also works with no pressure and dust spills

## LM Vertical Roller Technical Data

**Vertical Mineral Mill Series**

| Model | | LM80K | LM110K | LM130K | LM150K | LM170K | LM190K | LM220K | LM240K | LM280K | LM340K | LM370K |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Wheel diameter(mm) | | 800 | 1100 | 1300 | 1500 | 1700 | 1900 | 2200 | 2400 | 2800 | 3400 | 3700 |
| Output (th) | | 4-10 | 5-15 | 10~28 | 13~38 | 18~48 | 23~68 | 36~105 | 40-130 | 50~170 | 80-240 | 120-300 |
| Finish fineness | μm | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 | 170-45 |

| | Mesh | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 | 80-325 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| End product moisture (%) | | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% |
| Grinding material particle size D80 (mm) | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Grinding material max feed size(mm) | | <20 | <25 | <38 | <40 | <42 | <45 | <50 | <50 | <50 | <70 | <70 |
| Moisture of grinding material not to dry (%) | | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% |
| Moisture of grinding material need to dry (%) | | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% |
| Into mill air temperature(℃) | | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 |
| Out of the mill air temperature (℃)) | | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 |
| Main motor power (kw) | | 55 | 110 | 200 | 280 | 400 | 500 | 800 | 1000 | 1250 | 1800 | 2500 |

**Vertical Coal Mill Series**

| Model | LM80M | LM110M | LM130M | LM150M | LM170M | LM190M | LM220M | LM240M | LM280M | LM340M |
|---|---|---|---|---|---|---|---|---|---|---|
| Wheel diameter(mm) | 800 | 1100 | 1300 | 1500 | 1700 | 1900 | 2200 | 2400 | 2800 | 3400 |
| Output (th) | 3-5 | 7-10 | 10-17 | 16-22 | 20-30 | 26-40 | 35-45 | 50-70 | 70-90 | 100-140 |
| Coal powder fineness (R0.08) | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% | 5~20% |
| Coal powder moisture (%) | <1% | <1% | <1% | <1% | <1% | <1% | <1% | <1% | <1% | <1% |
| Grinding material particle size D80(mm) | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Grinding material max feed size(mm) | 20 | 25 | <38 | <40 | <42 | <45 | <50 | <50 | <50 | <50 |
| Material moisture of into mill (%) | <15% | <15% | <15% | <15% | <15% | <15% | <15% | <15% | <15% | <15% |
| Into mill air temperature (℃) | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| Out of the mill air temperature (℃) | 75~95 | 75~95 | 75~95 | 75~95 | 75~95 | 70~95 | 75~95 | 75~95 | 75~95 | 70~95 |
| Raw coal hardgrove grindability index (HGI) | >55 | >55 | >55 | >55 | >55 | >55 | >55 | >55 | >55 | >55 |
| Main motor power (kw) | 45 | 90 | 185 | 250 | 315 | 400 | 500 | 630 | 900 | 1400 |

**Vertical Slag Mill Series**

| Model | | LM130N | LM150N | LM170N | LM190N | LM220N | LM240N | LM280N | LM340N | LM370N |
|---|---|---|---|---|---|---|---|---|---|---|
| Wheel diameter(mm) | | 1300 | 1500 | 1700 | 1900 | 2200 | 2400 | 2800 | 3400 | 3700 |
| Output (th) | | 5-14 | 7-20 | 9-27 | 12-30 | 18-55 | 25-60 | 40-90 | 60-120 | 70-160 |
| Finish fineness | μm | 170~45 | 170~45 | 170~45 | 170~45 | 170~45 | 170~45 | 170~45 | 170~45 | 170~45 |
| | Mesh | 80~325 | 80~325 | 80~325 | 80~325 | 80~325 | 80~325 | 80~325 | 80~325 | 80~325 |
| Slag fineness (㎡/kg) | | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 | 420 |
| End product moisture (%) | | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% | ≤1% |
| Grinding material particle size D80 (mm) | | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 | <10 |
| Grinding material max feed size(mm) | | <38 | <40 | <42 | <45 | <50 | <50 | <50 | <70 | <70 |
| Moisture of grinding material not to dry (%) | | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% | <4% |
| Moisture of grinding material need to dry (%) | | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% | 4~15% |
| Into mill air temperature (℃) | | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 | <350 |
| Out of the mill air temperature (℃) | | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 | 70~95 |
| Main motor power (kw) | | 200 | 280 | 400 | 500 | 900 | 1120 | 1800 | 2500 | 3150 |